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Authors

Jackson, Margot I.

Pebley, Anne R.

Goldman, Noreen

Publication Date

2008-12-01



California Center for Population Research
University of California - Los Angeles

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CCPR-041-08

December 2008
Latest Revised: December 2008

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and Their Children: the Case of Los Angeles***

Margot I. Jackson¹
Anne R. Pebley²
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* We thank Germán Rodríguez for useful methodological discussions. The authors are grateful for financial support from NICHD grants T32HD01763 (Jackson), R01HD051764 (Goldman and Pebley) and R24HD047879 (Jackson and Goldman).

¹Brown University and Princeton University. Corresponding author: Office of Population Research, Princeton University, Princeton, NJ 08544. Email: margot_jackson@brown.edu; ²University of California, Los Angeles; ³. Princeton University

Schooling Location and Economic, Occupational and Cognitive Success among Immigrants and Their Children: the Case of Los Angeles

ABSTRACT

Large numbers of foreign-born residents in the United States mean that many people receive at least part of their education abroad. Despite this fact, our understanding of nativity differences in the success of adults and their children is based on research that does not empirically consider variation in the benefits to schooling depending on where it is received. We use data from the Los Angeles Family and Neighborhood Survey (L.A. FANS) to examine: a) whether the socioeconomic and cognitive returns to education depend on whether it is received in the U.S. or abroad; and b) whether schooling location partially accounts for nativity differences in these returns. We find that the returns to schooling are generally largest for adults who receive at least some of their highest level of education in the U.S. The beneficial effects of U.S. schooling are generally more pronounced at higher levels of educational attainment. Schooling location accounts for a sizeable fraction of the lower socioeconomic and cognitive returns of the foreign-born, relative to natives; some meaningful differences remain, however. In addition, the higher cognitive skills of the children of foreign-born adults remain unexplained. Although we cannot distinguish among the possible pathways underlying these associations (e.g., school quality, transferability of credentials, the timing of immigration) our findings suggest the importance of considering factors related to schooling location as predictors of socioeconomic and cognitive success in the United States.

Schooling Location and Economic, Occupational and Cognitive Success among Immigrants and Their Children: the Case of Los Angeles

INTRODUCTION

We use data on schooling location, socioeconomic attainment and cognitive skills to consider the extent to which the returns to schooling depend on its location. Large numbers of foreign-born residents in the United States mean that many people receive at least part of their education abroad. As a result, our understanding of the influence of educational attainment on the social and economic well being of this group, as well as any consequences for the next generation, is potentially complicated by factors related to schooling location. The extent to which social, economic and cognitive benefits accompany particular levels of education may depend on the environment in which education is received. Using data from the first wave of the Los Angeles Family and Neighborhood Survey (L.A. FANS), we consider this issue among a diverse and representative sample of adults and children. Specifically, we ask two questions. First, do the economic, occupational and cognitive returns to adults' education differ depending on where schooling is attained? Secondly, do differences in schooling location play a role in explaining nativity differences in these returns?

BACKGROUND

The Social, Economic and Cognitive Returns to Schooling

Education is an important marker of social status and a crucial component in processes of social mobility and reproduction (Blau and Duncan 1967; Bielby et al. 1977; Featherman and Hauser 1978). Although factors related to social background remain important determinants of status attainment, education is a dominant mechanism for

social mobility and is well-known as a predictor of occupational and financial success, both in early adulthood and over the course of adulthood. Less tangible benefits accrue from education as well, however, in the form of prestige, social networks, knowledge and information. High levels of education afford access to social and cultural resources, or “capital” (Coleman 1988; DiMaggio and Mohr 1985). These resources include peer networks that provide connections to good labor market positions, access to marital partners who have high levels of education or financial capital, access to networks of high quality information, and the ability to participate in stimulating cultural events (DiMaggio and Mohr 1985; Lin 1999; Peterson et al. 2000). The benefits of education and its attendant resources also extend to future generations. Children who live in homes with high levels of social and cultural capital, or who attend schools with high social capital, have additional resources to draw from and are more likely to attain high levels of education themselves (DiMaggio 1982; Parcel and Dufur 2001).

Cognitive skills are another important result of education. Ability is likely influenced by both genetic and environmental factors; although a portion of cognitive abilities is inherited, environmental factors within families and schools, and even in the prenatal environment, influence one’s ability to express that potential (e.g., Jencks 1980; Guo and Stearns 2002). High levels of education, simply put, empower people with fundamental knowledge, reasoning and problem-solving skills. Finally, it is worth pointing out that education has a particularly strong relationship with physical and mental health, relative to other markers of social status (e.g., Smith 2005). Although the extent to which educational gradients in health apply equally across all racial/ethnic groups is unclear (e.g., Crimmins et al. 2004; Goldman et al. 2006; Kimbro et al. 2008), strong

educational gradients in health exist in most industrialized nations, with those at successively higher levels experiencing better health than those below them (Case et al. 2002; Marmot 2001). Not only are these social, economic, cultural and health-related factors affected by educational attainment, but they also act as determinants of the educational attainment of future generations (e.g., Case et al. 2005; Jackson forthcoming). Cumulatively, they therefore play an important role in social mobility processes, both directly and indirectly.

Nativity Differences in the Returns to Education

Although the benefits of education are plentiful, their distribution across subgroups of the population is unequal. Black men, for example, are less able to garner the highest financial returns from a given level of education, particularly at the highest occupational levels (Grodsky and Pager 2001). Both men and women are less likely to receive high financial returns if their occupation is perceived as “feminine” (England et al. 1988). A number of factors account for these racial/ethnic and gender differences, including not only overt discrimination within a given job, but also differential placement into particular occupations and variation in educational quality and skill development.

We focus on nativity differences in the returns to schooling. The 2000 U.S. Census indicates that about 11% of the U.S. population is foreign-born. Migration to the U.S. often brings sizeable improvements in quality of life, in both the short and long-term, particularly among those arriving from positions of low social status in their native countries (Chiswick 1978; Jasso et al. 2004; Massey 1981; Schoeni 1997). Classic assimilation theory predicts a smooth and linear process of integration for all groups and across many dimensions, including language and cultural practices, social networks,

residential context and social status (Gordon 1964). It is clear, however, that the process of socioeconomic assimilation is not uniform across all foreign-born groups, but depends sharply on a number of factors, including levels of education, the reasons for migration and the context of reception, and skin color (Alba and Nee 2003; Waters 1999).

Research examining the socioeconomic integration of the foreign-born has focused most heavily on the earnings of the Mexican-origin population, who comprise the largest immigrant group in the United States. Foreign-born Mexican men and women earn less than U.S.-born Mexican-Americans and non-Hispanic whites (Allensworth 1997; Verdugo and Verdugo 1985). Part, but not all, of this differential is explained by differences related to the process of immigration, such as English language skill and social networks within the labor market (Borjas 1983; Morales and Ong 1993). Beyond the Mexican case, those born in Central or South America also gain less financially from education than their native-born peers (Tienda 1983). These patterns changed little during the period between 1970 and 1990 (Snipp and Hirschmann 2005). Asian-born adults are clustered at both the top and bottom of the socioeconomic hierarchy, depending on ethnicity and national origin; Zeng and Xie (2004: 1076) describe this pattern as one with "...a high average and large dispersion." The ethnic diversity within this pan-ethnic group notwithstanding, there is evidence that Asians broadly categorized are more successful than the equally broad Hispanic group in converting education into economic and occupational success (Iceland 1999; Niedert and Farley 1985).

The Importance of Schooling Location

Understanding nativity differences in the returns to education is complicated by the fact that many immigrants, but few of the native-born, receive some or all of their

schooling abroad. Despite this fact, with only a few exceptions, our understanding of nativity differences in adults' and children's success is based on the assumption that all schooling confers equal benefits, regardless of where it is received; although researchers may recognize the importance of schooling location, they do not consider it empirically. We extend previous work to conceptualize education among the immigrant population in greater depth, in order to describe nativity differences in the association between education and adults' economic and occupational success, and adults' and children's cognitive achievement. Because our data do not allow us to distinguish among the possible explanations for differences in social and cognitive outcomes by schooling location, we aim instead to add to existing work by documenting the socioeconomic and cognitive returns to education among adults and their children when place of education is considered, and to begin to understand the role of schooling location in accounting for nativity differences in the returns to education. In order to motivate our analysis and understand the findings, we consider the potential importance of schooling location below.

School Quality. Educational systems vary significantly across nations in their instructional quality, content, and access to financial and technological resources. Whereas graduation from a U.S. secondary school implies a certain level of skill in basic math, verbal and analytical reasoning, the same may not be true in poorer countries that educate many eventual immigrants to the U.S. For these immigrants, each level of non-U.S. education is also less likely than a U.S. education to be accompanied by resources conducive to learning. Basic data from UNESCO, for example, indicate that the average 2000 primary school pupil to teacher ratio in the U.S. was 15, compared to 27 in Mexico

and 33 in Guatemala. Similar differences among nations exist for other indicators of school quality, including the years of compulsory schooling and the ratio of the expenditure per pupil to per-capita GDP. On average, those who complete all of their schooling in poorer settings than the United States are therefore less likely than their U.S.-educated peers to have received as many resources at a given level of schooling. These resource deficiencies may manifest as lower cognitive skill, occupational placement and earnings.

Although many immigrants to the U.S. receive at least some of their education in resource and content-poor settings, a sizeable fraction is educated in countries that offer equal or better resources and instructional content than the U.S. For example, in OECD's 2006 Programme for International Student Assessment (PISA) of science competency, Mexico had a mean score substantially below that of the United States (Italy, Greece, Portugal and Turkey also had lower scores), but Japan, Taiwan, Hong Kong, Korea and a number of European countries scored well above the U.S. (OECD 2007). These country-specific differences make it likely that the returns to schooling location will vary depending on the sending country.

In existing work on differences in school quality, Brastberg and Ragan (2002a) use 1980 and 1990 Census data to show that school quality is related to earnings in the U.S. among foreign-born men from several countries. They find that immigrants from countries with higher scores on indicators of school quality—European and East Asian countries—have higher earnings than their peers from countries with inferior schools, net of educational attainment and important confounders. In other work, Bratsberg and Ragan (2002b) find that the distinction between some and no U.S. schooling is

meaningful; even immigrants who receive only part of their schooling in the U.S. earn more than their entirely foreign-educated peers. Of course, meaningful variation in school quality also exists within nations, including the U.S. (e.g., Card and Krueger 1992a, 1992b). Higher baseline resource levels in the U.S. relative to poorer countries, however, as well as statewide and citywide requirements for standardized testing and teacher quality within the U.S., make it more likely that a basic set of skills is acquired by the majority of students who complete a certain level of education.

Credential Transferability. The need to transfer credentials across contexts may also mean that those who receive their education abroad have greater difficulty obtaining a job that suits their credentials. Immigrant medical doctors and lawyers are often forced to work in occupations that do not require the level of schooling that they have achieved, because of country-specific licensing requirements and the need to learn a new vocabulary; this is one example of a more general phenomenon (e.g., Friedberg 2000). To the extent that institutional prestige matters, those with foreign diplomas may not be rewarded as highly for the same level of training (Jaeger and Page 1996). Zeng and Xie (2004) find that foreign-born Asians suffer an earnings disadvantage in the U.S. in part because they work in occupations that do not match their credentials; this observation could imply either a problem with the logistics of transferring credentials or a lower incentive structure among employers for foreign education.

U.S. Adjustment and Experiences in the Sending Country. Finally, a U.S. education implies familiarity with U.S. norms as well as integration into social networks that can be instrumental for socioeconomic success. Foreign-born adults who receive U.S. schooling have necessarily spent more time in the U.S., and are therefore more

likely to be proficient in English, to have more U.S. work experience, to be able to participate at their children's schools, and to be integrated themselves into peer networks through work, school or neighborhoods. Conversely, just as a higher age at immigration implies less experience in the U.S., it also implies a longer exposure to the norms and infrastructure of the sending country. More time spent in the native country means greater exposure to that country's social organization, labor market and cultural practices; distinguishing the influence of these factors from that of schooling location is often impossible.

Like school quality and credential transferability, factors related to time spent in the U.S. and age of immigration may explain the observed relationships among schooling location and economic, occupational and cognitive success. These factors also pose methodological difficulties, however, for any analysis of the relationship between place of education and economic, occupational and cognitive returns. Zeng and Xie (2004: 1104) describe the problem nicely in terms of a hypothetical experiment in which there are two equally educated foreign-born adults, an outcome (e.g., earnings), and a "treatment" of U.S. education. The two foreign-born adults, one U.S.-educated and one educated abroad, cannot have identical characteristics related to U.S. adjustment (e.g., years of work experience) unless they begin working in the U.S. at exactly the same time. A more likely possibility is that the U.S.-educated adult will have had more U.S. work experience. In the absence of large numbers of respondents who have identical U.S. work experience but differ only in where they were educated, schooling location is likely to be correlated with U.S. work experience, and more generally with time spent in the U.S. Even if work experience were equal, the two adults would not have equal exposure

to an English-speaking setting, U.S.-based contacts, and other factors related to social and economic success. Because our data do not allow us to distinguish between the roles of schooling location and the many factors related to the timing of immigration, we do not claim to solve this problem, and our findings are subject to the same limitations as those encountered in other studies (e.g., Bratsberg and Ragan 2002a; Zeng and Xie 2004). Nonetheless, we extend existing research by using measures of schooling location to describe not only economic success, but also occupational success and cognitive skills among both adults and children.

This Study

With only a few exceptions, our understanding of differences in the returns to education by place of education, and the role of schooling location in explaining nativity differences in adults' and children's success, is based on the implicit assumption that all schooling is equivalent in content and quality, and that all credentials provide equivalent signals to employers, regardless of where they are received. In addition, studies of differences in educational returns by schooling location are limited to the examination of earnings and income disparities. Although income is a vital marker of socioeconomic success, it is not the only meaningful indicator of advantage. Using data from the Los Angeles Family and Neighborhood Survey, we extend existing work by conceptualizing education among the immigrant population in greater depth, and considering its role in explaining nativity differences in attainment. We also move beyond a purely economic indicator of U.S. integration, by considering occupational status and cognitive skill in addition to income. Finally, we examine whether any relationship between schooling

location and cognitive skill extends to the next generation, by studying cognitive skills among the children of our sample of adults.

DATA

Data come from the first wave of the Los Angeles Family and Neighborhood Survey (L.A. FANS). L.A. FANS is a panel study of families in Los Angeles. A second wave of data collection is currently in the field. The first wave was collected in 2000-2001 from a representative sample of 3,090 households in 65 neighborhoods. The survey is based on a stratified probability sample, with oversamples of poor neighborhoods and households with children (Sastry et al. 2006). Respondents include randomly selected adults (RSAs), primary caregivers (PCGs), randomly selected children (RSCs) and siblings of the RSCs (SIBs). The response rate was 85% among RSAs, 89% among PCGs, 87% among RSCs and 86% among all children. These response rates compare favorably to those of major nationally representative surveys (Peterson et al. 2003).

METHODS

Measures

Dependent Variables. Dependent variables include *total family income* and *occupational status* among adults, and *reading skills* among adults and children. Total family income is measured by combining family earnings, earnings from assets and transfer income.¹ We model the natural log of income. For small coefficients, interpretations are therefore a proportion increase or decrease per unit of the independent

¹ In analyses not shown here, we also examine logged individual wages as a dependent variable. Because some respondents were not working at the time of the survey, there are larger amounts of missing data on this measure. We analyze individual wages as a sensitivity test and find the same pattern of results. We do not present the findings for this measure, however, because of the very small and therefore potentially unreliable sample sizes within cells.

variable. For large coefficients, an exact proportionate change can be computed by exponentiating the coefficient and subtracting 1. The measure of family income includes imputed values for those missing a response; the imputations are based on relevant predictor variables (Bitler and Peterson 2004). Occupational status is measured using the International Socioeconomic Index of Occupational Status (ISEI). This internationally comparable scale, created by Ganzeboom et al. (1992), weights occupations from the International Standard Classification of Occupations, or ISCO, by their associations with education and income.

Finally, we examine reading skills among both adults and children. Among adults, reading comprehension is assessed with standardized scores on the Woodcock-Johnson Revised (WJ-R) passage comprehension test. Standardized scores are transformed versions of raw scores, with a mean of 100 and a standard deviation of 15 (Peterson et al. 2003). Children's reading skill is measured with broad reading scores (standardized scores) from the WJ-R assessment. Broad reading scores combine scores on the letter-word identification and passage comprehension assessments to give an overall indication of reading skills. Adults and children could choose to take the exam in either Spanish or English. In analyses not presented here, we also examine children's math achievement. We do not present these findings because they parallel the results shown for reading skill.

Analyses of income and occupational attainment are limited to adults, and include both randomly selected adults (RSAs) and primary caregivers (PCGs), yielding a representative sample of adults in L.A. County when sampling weights are applied. Among adults, analyses of reading comprehension include only PCGs, as RSAs did not

complete the cognitive assessment. Finally, analyses of children's reading skill include both RSCs and their siblings, who constitute a representative sample of children when sampling weights are applied. The adult sample ranges from 1,767 to 2,998 respondents ages 18 and older, depending on the outcome. The sample of children includes 1,522 respondents—ages 6 to 17 years old.²

. **Schooling.** We consider two variables, educational attainment and schooling location, as well as the interaction between them. Respondents are asked about their educational attainment, the year in which they reached that level, and their current enrollment status. Foreign-born respondents also report the year that they arrived in the U.S., and whether they received any education abroad.

Educational attainment is measured by the highest level of completed schooling: primary schooling or less, some secondary, completion of secondary, some college, and college or beyond. Schooling location can be measured in several ways, ranging from a simple measure that indicates whether any education is obtained in the U.S. to a more complex measure that classifies individuals according to how much education is obtained within the U.S. at each stage of the schooling process. Sample sizes in the L.A.FANS are not sufficiently large to consider the latter type of measure; in addition, obtaining this level of detail from respondents' reports would require several assumptions. A related issue is whether the effects of schooling location on socioeconomic and cognitive success vary by the level of educational attainment. Because, for example, difficulties in transferring foreign credentials to the U.S. apply only to those who have post-secondary

² Children ages 3 to 5 completed only one of the two tests (the letter-word identification assessment) and are therefore excluded from the analysis.

credentials, variation in the effects of schooling location across levels of educational attainment is potentially important.

Our measure of schooling location examines whether the highest completed level of schooling occurs within or outside of the U.S. We test two measures. The first distinguishes between respondents with no U.S. schooling and those with some or all U.S. schooling at their highest attained level.³ The second measure is more detailed, distinguishing among none, some and all U.S. schooling at the highest attained level. For each outcome variable, we use likelihood ratio tests to compare two nested models, one with the dichotomous location measure, and one with the three-category measure; we proceed with the most appropriate measure. We then interact the selected location variable with the five levels of educational attainment.

Determination of the schooling location category is straightforward for those who complete all education in one place. Assignment for those who arrive in the U.S. before the completion of their education can be determined using information on the years of education at each level, the year of U.S. arrival and the year of completion of the highest level of schooling.⁴ For these respondents, if the difference between the year of school completion and the year of U.S. arrival is less than the number of years they have completed in the highest level, they are assigned to the "some U.S." category. If the difference is greater than or equal to the numbers of years at their highest level, they are assigned to the "all U.S." category. The "some" and "all" categories are combined for the dichotomous schooling location variable.

³ Because of limited information on immigrants' educational history in L.A.FANS, respondents who receive any U.S. education are defined as receiving at least some U.S. education at their highest attained level.

⁴ Because time in the U.S. is used in constructing the schooling location variable, we do not control for it in the analyses.

Other Independent Variables. Nativity status distinguishes among those born in the U.S. (reference), Latin America (including Mexico and Central America), Asia (including South Asia, East Asia and the Pacific), and other countries (including Europe, Central Asia, and the Middle East).⁵ We also include factors that are correlated with education and socioeconomic success. Because race/ethnicity may influence the extent to which people are placed into particular tasks within an occupation, as well as the opportunities they have for advancement, we include a measure separating those identifying as non-Hispanic white or other ethnicity (reference), Latino, non-Hispanic black or Asian/Pacific Islander.⁶ All analyses include respondents' sex (female=reference); age (in years); marital status (unmarried=reference); documentation status; the number of children in the household (a linear measure); the occupational status of the household head when the respondent was 14 years old; the current household head's occupational status (in analyses of income and cognitive achievement); health status during childhood (a 5-category self-rated measure ranging from excellent to poor); and current health status (measured in the same way).⁷ In analyses of adults' and children's reading skills we account for the language in which the test was taken (Spanish or English), as well as whether another language is the primary language at home. When examining children's reading skills we include measures of the child's age and their PCG parent's passage comprehension, to partially account for unobserved genetic and environmental contributors to cognitive ability. Parents with higher reading scores may

⁵ The very small number of African immigrants (less than 10) is included in the "Other" category. The findings are not sensitive to their inclusion or exclusion.

⁶ From here on, we drop the "non-Hispanic" term and refer simply to whites and blacks.

⁷ Because occupational status is partly determined by cognitive skill, analyses of reading comprehension do not include the household head's occupational status. In addition, because the data are cross-sectional and we cannot account for the possibility that current health may be endogenous to education, we estimate models with and without this measure. The findings do not differ, so we leave the measure in the model.

spend more time reading with children or taking children to the library, for example, both of which may be correlated with children's exam performance.

Missing Data. We use multiple imputation to assign non-missing values for independent variables based on a set of relevant predictors (Rubin 1987). The findings are not sensitive to different methods of handling missing data, including mean imputation with dummy variables indicating missing values, and listwise deletion.

Analysis

We use linear models to analyze the economic, occupational and cognitive returns to educational levels and location, and the role of schooling location in explaining nativity differences in these returns. We begin with a basic OLS model that examines the relationship between nativity and income, occupational status and parents' and children's cognitive skill:

$$y = \beta_0 + \beta_1 N + \beta_2 X + u, \quad (1)$$

where y is the natural log of income, occupational status or reading skill; N is nativity (region of birth); X is a vector of correlated sociodemographic factors (race/ethnicity, age, etc.); and u is a normally distributed error term. We use this model to obtain a baseline estimate of nativity differences. We next add to the model a measure of educational attainment that does not account for schooling location, in order to examine the contribution of educational levels to nativity differences in socioeconomic and cognitive success. Then, we add a dichotomous or three-category measure of schooling location as a main effect. As mentioned earlier, the choice between the two- and three-category measures of schooling location is made using likelihood ratio tests. Finally, we interact this measure with educational attainment to consider whether the economic, occupational

and cognitive returns to education depend on where it is completed. All analyses apply sampling weights to adjust for the sampling framework.

Because the majority of foreign-born respondents are from Latin America, we also obtain estimates from a sample limited to those who identify as Latino/Hispanic (i.e., U.S. born Latinos and adults born in Latin American countries). We do this in order to: a) examine whether the findings are driven by this large group, and b) address the possibility, to the extent that the data permit, that the returns to schooling location depend on the country/region of origin. Although small sample sizes prevent us from examining country-specific relationships, a foreign-born sample made up only of Latin Americans will likely include less variation in school quality and content than a sample that also includes respondents from European, East Asian and Middle-Eastern countries. The basic pattern in the findings does not change when we limit the sample to Latinos. Below we present the estimates for both the total and Latino samples.

This modeling strategy allows us to describe the relationships among nativity, schooling level and location, and the returns to education. An obvious limitation of this approach, as discussed above, is that we cannot empirically isolate the influence of schooling location from that of factors related to time spent in the U.S., including work experience and exposure to U.S. social networks, and factors related to experiences in the sending country. Any analysis of nativity differences must also acknowledge potential bias due to selective migration. If foreign-born adults in the sample from Latin America, for example, have lower average levels of education than their peers who do not migrate, and if those from Asian countries are in some cases the most educated, then any observed

Latin-American disadvantage or Asian advantage may be upwardly biased.⁸ We can partially address this bias by adjusting for levels of education, but because we cannot compare foreign-born respondents to their peers who do not migrate, we cannot eliminate the possibility that other factors related to the migration decision are influencing attainment.

Because of these limitations, we make no causal claims about the relationships we observe, instead offering a detailed description of patterns. This step is an important contribution, given the joint consideration of schooling level and location, the consideration of non-economic attainment measures, and the examination of children.

FINDINGS

Sample Characteristics

Table 1 presents weighted descriptive characteristics, for the total L.A. FANS sample and separately by nativity. Over 40% of the adults are foreign-born, with 28% born in Latin America, 10% born in East or South Asia and 5% born in other countries (Europe, Central Asia, the Middle East and Africa). Whereas 23% of the total sample has a college degree or higher, only 5% of those born in Latin America have that credential; the majority of Latin Americans has less than a completed high school education. In contrast, the majority of those born in Asia or “other” countries has a college degree.

--TABLE 1 ABOUT HERE--

U.S.-born respondents achieve a slightly higher occupational status on average than those born in “other” or Asian countries, followed by those born in Latin American

⁸ Research on the selectivity of migrants using Census and UNESCO data suggests that the average education of immigrants to the U.S. is higher than the average education of their population of origin, particularly among Asian immigrants (Feliciano 2005).

countries. Mean income is lowest among Latin American respondents. Finally, Latin American and Asian-born respondents score lowest on the passage comprehension assessments, followed by “other-born” and U.S.-born adults. Because the test was administered in only English and Spanish, it is possible that the low performance among Asian-born respondents partly reflects the lack of a test in their native language. Although we adjust for the primary language spoken at home, and although respondents needed to be fluent enough to complete the interview in English, speaking ability may be stronger on average than reading ability. The converse of this pattern exists among children, where the children of Asian-born parents perform highest on average. Children of adults born in Latin America achieve the lowest scores.

Associations among Nativity, Education and Attainment

Table 2 presents associations between nativity and the measures of socioeconomic and cognitive attainment; the first panel shows these relationships net of correlated socio-demographic factors but not accounting for differences in educational attainment and location. The unadjusted nativity differences show the expected patterns: being born in a Latin American country is associated with a significantly lower family income [34% lower: $(e^{-.412}-1)*100$], lower occupational status (about 9 points lower), and lower reading comprehension (over 7 points) than being born in the U.S. As shown in the columns labeled “Latino” in Table 2, these estimates are generally similar to those obtained when the sample is limited to U.S.-born Latinos and those born in Latin American countries. Being born in Asia or in “other” countries is not significantly related to occupational status, but it is related to significantly lower income and passage comprehension: Asian and “other” nationalities are associated with passage

comprehension scores that are 18.2 and 21.5 points lower, respectively, than U.S. nationality. The lower performance of Asian and “other” respondents may be driven in part by the fact that the assessment was offered only in English and Spanish. The children of Latin Americans do not differ significantly from those of U.S.-born respondents in reading achievement. In contrast, the children of Asian-born and other-born parents outperform their peers by 17 and 9 points, respectively (or about 0.6 and 0.3 of a standard deviation).

--TABLE 2 ABOUT HERE--

Table 3 adds a categorical measure of educational attainment to the model. The returns to education follow the expected pattern, with higher levels of education associated with higher income, occupational status and passage comprehension skills. Attainment of a college degree or higher, for example, is associated with a 117% increase in family income, on average, compared with completion of primary school or less schooling; an almost 16 point increase in occupational status; a 24 point increase in passage comprehension skill; and an 11 point increase in children’s reading skills. These differences are large: a 16-point increase in occupational status is equivalent to almost 1 standard deviation ($SD=16.46$). To give a more concrete example, 16 points is roughly equivalent to the difference between working as a retail sales clerk (ISEI score of 46) and an independent realtor (62). These findings are also quite similar in pattern and magnitude within the Latino (U.S. and foreign-born) sample, with one exception; the associations between high levels of parental education and children’s reading skills are generally not significant among Latinos. It is possible that this finding is driven by low statistical power, given small numbers of Latino respondents in the highest educational

categories. So far, these findings mirror existing research: higher levels of education among adults are related to higher socioeconomic attainment and cognitive skill, and these positive associations also extend to the next generation of children.

--TABLE 3 ABOUT HERE--

Adjustment for educational attainment also reduces the nativity gaps in income, occupational status and reading comprehension between Latin American and U.S.-born respondents, as shown in the second panel of Table 2, and in Figures 1a and 1b. The figures show standard deviation differences from U.S.-born adults for each outcome, separately for each foreign-born group. Figure 1a, based on the first panel of Table 2, shows the large nativity differences described above. Latin American nationality, for example, is associated with an ISEI score that is more than one half of a standard deviation lower than the score associated with U.S. nationality. Table 2 and Figure 1b show that after adjusting for differences in educational attainment, the nativity differences are generally smaller. The initial difference in the income coefficients between Latin American and U.S.-born adults is reduced by about 25%. The gap in ISEI scores between Latin American and U.S.-born adults is also reduced from 9 to 6 points, or from a difference of almost 0.5 standard deviations to about 0.35. Adjusting for differences in educational attainment does not account for the lower income of Asian and “other” adults, however. Similarly, although about 30% of the lower expected passage comprehension of Latin-American born adults is accounted for by educational attainment, the disadvantage associated with Asian and “other” nationalities becomes slightly larger, suggesting that something unrelated to educational attainment is driving poorer performance on this assessment. In addition, although Asian and “other” nationalities

have poorer reading skills, the children of these adults still perform better, net of parents' educational attainment. The children of Latin-American born parents do not exhibit a significant difference in performance from their peers with U.S.-born parents.

--FIGURES 1A and 1B ABOUT HERE--

So far, we have observed large nativity differences in financial, occupational and cognitive attainment. These disparities are reduced among Latin Americans, but not eliminated, after considering differences in educational attainment. There is a significant passage comprehension disadvantage remaining among all foreign-born adults, particularly among Asians and "others." It is unclear whether these differences reflect a true skill deficiency or difficulty completing the exam in English. Either way, the lower cognitive performance observed among Asian and "other" adults does not appear to extend to their occupational success, or to the reading skills of their children.

The Role of Schooling Location

Having documented nativity differences in attainment and cognitive skill, the role of educational attainment in explaining those differences, and the returns to educational levels, we now consider whether these relationships depend significantly on the location of schooling. Likelihood ratio tests (not shown) indicate that the dichotomy of "some/all" vs. no U.S. schooling, within each level of education, is preferable to a three-category location variable for analyses of income, occupational status and children's reading skills. In these models we therefore use a dichotomous measure of schooling location similar to that used by Brastberg and Ragan (2002b). The three-category schooling location measure is strongly preferred for adults' reading comprehension; in this model we distinguish among no, some and all U.S. schooling.

Table 4 shows the returns to schooling location, independent of the level of education. The patterns generally follow the expected direction, with the exception of income: the socioeconomic and cognitive returns to education are significantly larger when some or all of the highest level of education is received in the U.S. That is, receiving at least some U.S. education at the highest level, relative to an entirely foreign education, is significantly related to higher occupational status and stronger reading skills among children, and receiving all of one's highest level of education in the U.S. is significantly positively related to adults' reading comprehension. Adjusting for schooling location does little to change the magnitude of the coefficients for educational attainment.

--TABLE 4 ABOUT HERE--

Although Table 4 provides estimates of the main effects of schooling location, it does not include interaction terms to address the possibility that the effects of schooling location vary across levels of educational attainment. Interactions may also explain the seemingly counter-intuitive finding in Table 4 that receiving some U.S. education at the highest level, relative to no U.S. education, is significantly negatively associated with reading comprehension (in the total, but not Latino-only, sample). The results of this analysis are presented in Table 5. Rather than presenting the main effects of schooling level and location together with their interaction, we present an alternative set of parameters to facilitate interpretation of their joint impact on socioeconomic and cognitive success. The first panel shows the returns to education for those who receive their highest level of education (and, consequently, all of their education) abroad. In the next panel, we present differences between the coefficients for those with (at least) some

U.S. education at their highest level and those with no U.S. schooling at that level. In analyses of adults' reading comprehension, where we incorporate an additional category of schooling location, we present a separate panel, indicating coefficient differences between respondents with all U.S. schooling at the highest level and those with some, but not all, U.S. schooling at that level. We evaluate the significance of these differences by computing tests of coefficient equality within schooling levels; the results of these tests are shown within the table as asterisks next to the coefficient differences.

--TABLE 5 ABOUT HERE--

Wald tests of joint significance, shown at the bottom of Table 5, indicate that the socioeconomic and cognitive returns to education depend significantly on schooling location: as a whole, the coefficients for schooling location significantly improve the fit of all but one of the eight models (children's reading skills in the Latino-only sample). The estimates in the first panel show the returns to schooling level, among those with no U.S. education at that level. Relative to a foreign primary school education, a foreign college degree is significantly positively related to occupational success and to the cognitive performance of both adults and children.

A more relevant question for this analysis is addressed in the next panel: does the variation in the socioeconomic and cognitive returns to education by location depend on educational attainment? For a given level of educational attainment, receiving at least some U.S. schooling is beneficial, primarily at higher levels of education. For example, whereas the first panel shows that college-educated adults who receive their schooling abroad do not have significantly higher incomes than those with a primary school education, the second panel shows that receiving some or all of that college education in

the U.S. is associated with a 75% increase in family income ($e^{.562}$) relative to a foreign college education. Similarly, receiving some secondary education or higher in the U.S. is associated with anywhere from a 3 to 8 point increase in ISEI score, relative to receiving that same level of education abroad.

The estimates for adults' reading comprehension reveal large and significant differences between those receiving some vs. all of their highest level in the U.S., among respondents with at least some college education. For example, receiving an entirely U.S.-based college education is associated with a reading comprehension score that is about 26 points (almost a full standard deviation) higher than the score associated with a partially U.S.-based college education. The puzzling finding described earlier in Table 4 is also apparent in Table 5 for those with a college degree: pursuing at least some of the college degree in the U.S. is associated with a 13 point *decrease* in reading comprehension relative to attaining this level entirely abroad. There are a number of possible reasons for this finding, one of which is differences in language ability; foreign-educated respondents with a college degree may be positively selected on pre-existing English language training. Although the precise explanation is unknown, these findings suggest that higher cognitive performance is related to receiving an entirely, rather than partially, U.S.-based college education. Finally, parents' schooling location is less consistently associated with children's reading skills, although there is some evidence of higher performance among children whose parents obtain some of their schooling in the U.S. Figures 2a-2d show these patterns in the form of standard deviation differences between schooling location categories at each educational level. The figures underscore

that the highest levels of education are most often associated with large advantages of U.S. schooling.

--FIGURES 2A-2D ABOUT HERE--

Schooling Location and Nativity Differences

Do differences in schooling location partially explain the remaining nativity differences in economic, occupational and cognitive attainment? The bottom panel of Table 2 presents nativity differences across the outcomes, adjusted for schooling levels and location. The findings are also presented graphically in Figure 3 in the form of standard deviation differences from U.S.-born respondents, separately for each outcome. Comparisons with Figure 1b and Table 2 suggest that schooling location provides some additional purchase in accounting for nativity differences, above and beyond educational attainment. The difference in the income coefficients between Latin American and U.S.-born adults (in the total sample) is reduced by a further 17%, and those for Asians and “others” are reduced by 14% and 20%, respectively. Considering schooling location also reduces the ISEI score gap between adults born in Latin American countries and the U.S. by 36%, leaving a difference of 3.8 points, or about 0.23 of a standard deviation.

Adjusting for schooling location slightly reduces the lower reading comprehension of Latin American-born adults, and reduces the disadvantage of Asian and “other-born” adults by about 30%, although significant differences remain. Adjusting for schooling location does not reduce the cognitive advantage of the children of foreign-born adults.

--FIGURE 3 ABOUT HERE--

DISCUSSION

Increases in the number of immigrants to the U.S. over the last several decades complicate the study of educational attainment and its consequences. Adults in the U.S. vary not only in how much schooling they have, but in where they receive it and in what that implies about school quality, credential signaling to employers, social networks, and ultimately economic and occupational success, cognitive skill, health status and the resources and success of the next generation. Failure to account for schooling location may lead to misrepresentation of the returns to education for the foreign born. This article takes a step toward that understanding by using data on schooling location and adults' and children's outcomes to describe variation in the returns to education depending on where it is received, and to consider whether differences in location play a role in accounting for nativity differences in the returns to schooling. We extend the typically singular focus on economic success by considering occupational status and cognitive skill, as well as cognitive consequences in the next generation. Although the composition of our sample permits us to obtain separate estimates only for Latinos, sizeable numbers of Asian and "other" immigrants from Europe, Central Asia and the Middle East allow us to examine these questions among a broader population of adults and children.

The findings reported in this article are not without limitations. Despite the many advantages of L.A.FANS for this analysis, there are two notable drawbacks: 1) the lack of a complete education history with information on years of schooling obtained in successive locations; and 2) modest numbers of people with schooling in more than one location. These limitations have led us to use fairly coarse measures of schooling

location, which prevent us from examining the effects of schooling received abroad and in the U.S. in greater complexity. As discussed earlier, another inherent problem is our inability to distinguish the effects of U.S. schooling from those of cultural assimilation, U.S. work experience, and experiences in the sending country. Although more detailed data with large sample sizes would provide a small amount of leverage on this issue – for example, from information on those who immigrate at the same relatively young age but have slightly different amounts of schooling in their home countries – we could never fully distinguish the broad-ranging effects of age at immigration from those of attributes such as school quality and credentials, which are a direct consequence of respondents' educational experience. Concerns about selective migration, and the impact that has on observed nativity differences in attainment, also warrant caution in interpretation.

Despite these limitations, we establish large and significant associations that raise questions for future research. Adults with the highest levels of education have higher incomes, higher occupational status and stronger passage comprehension skills than their peers with a primary school education, and their children also exhibit strong cognitive skills; this is especially (and in some cases, only) true if adults receive some or all of that education in the U.S. These findings extend those in previous studies, which have shown, at least for income, that U.S. schooling confers significantly higher financial benefits than a foreign education. We also find that, in general, adults who receive some or all of their college education in the U.S. have significantly and substantially higher socioeconomic attainment and cognitive skills than their peers who receive that same level of education entirely abroad. Moreover, children of these adults have better reading skills than children with parents educated abroad.

It is unclear whether these findings are driven by differences in credential transferability, school quality, or factors related to the timing of immigration. It is certainly plausible, for example, that among those with a college degree, a credential more easily translates into economic and occupational success if received in the U.S. At the same time, a similar finding with respect to cognitive skills suggests a role for factors related to school quality or the age of immigration. Those who have spent longer in the U.S., for example, may be more proficient in English reading ability than their peers who are also highly educated but are more recent arrivals to the U.S. It would be useful in future research to distinguish among factors related to schooling location, including school quality, credential transferability, cultural assimilation, U.S. work experience and experiences in the sending country. Each factor implies a different pathway from schooling location to social, economic and cognitive adjustment, and ultimately a potentially different response. Whether differences in schooling location imply variation specific to a country's educational system and credentials, or whether they reflect differences in the stage of U.S. adjustment or the timing of immigration, understanding the socioeconomic and cognitive population-level consequences of the immigration process is important.

With respect to nativity differences in the returns to education, we find that the explanatory power of schooling location is as important as that of schooling level. Adjusting for differences in schooling location reduces the magnitude of foreign-born adults' predicted income disadvantage and accounts for close to 40% of Latin Americans' occupational disadvantage, above and beyond differences in educational attainment. Schooling level and location account for a portion of the lower predicted cognitive skill

of foreign-born adults, but do not explain the predicted cognitive advantage of their children. Although we cannot definitively say what factors lie behind the explanatory role of schooling location, these findings suggest the importance of better understanding the ways in which a U.S.-based education may confer benefits for the foreign-born and how these benefits vary by nativity.

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Table 1: Weighted Sample Characteristics, by Nativity: L.A. FANS^a

	Latin				
	U.S. Born	America	Asia	Other	Total
Nativity	57	28	10	5	100
Level of Education					
Primary or Less	1	42	2	3	20
Some Secondary	12	24	7	4	17
Secondary	26	21	13	17	23
Some College	27	8	15	19	17
College or More	34	5	63	58	23
School Level and Location					
Primary highest, no U.S.	-	39	2	3	18
Primary highest, some U.S.	-	2	-	-	1
Primary highest, all U.S.	1	1	-	-	1
Some secondary, no U.S.	-	18	2	1	8
Some secondary, some U.S.	-	1	4	1	1
Some secondary, all U.S.	12	5	1	1	8
Completed secondary, no U.S.	-	15	8	4	7
Completed secondary, some U.S.	-	1	3	7	1
Completed secondary, all U.S.	26	6	3	5	14
Some college, no U.S.	-	3	1	1	1
Some college, some U.S.	-	1	3	9	1
Some college, all U.S.	27	4	11	9	15
Completed college, no U.S.	-	2	22	22	3
Completed college, some U.S.	-	1	15	9	2
Completed college, all U.S.	34	2	25	27	19
Race/Ethnicity					
Non-Hispanic White	59	1	2	73	38
Latino/Hispanic	16	97	0	16	38
Asian/Pacific Islander	18	0	97	8	14
Black	6	2	0	3	10
Male	49	54	47	47	50
Undocumented	0	35	0	0	10
Married	48	48	63	63	50
Mean Age	45	38	45	44	42
Mean Current Health	2.3	2.8	2.2	2.0	2.4
Mean Childhood Health	1.8	2.2	1.9	1.8	1.9
Mean Number of Children in HH	0.8	1.5	1.5	1.0	1.0
Mean Occup. Status of Childhood Head	43	34	52	47	42
Mean Occup. Status of Current Head	49	32	47	48	44
N	1328	1336	168	146	2998
Mean Logged Income	3.6	2.7	3.4	3.5	3.2
N	1319	1336	168	147	2969
Mean Adult Passage Comp. Score	39.6	12.1	19.6	29.0	24.9
N	719	818	100	90	1727
Mean Child Reading Score	52.5	45.7	64.2	53.1	51.4
N	598	757	84	83	1522

^aNumbers in cells are percentages unless mean is indicated. Distributions may not sum to 100 because of rounding.

Table 2: Nativity Differences in Financial, Occupational and Cognitive Returns: L.A. FANS^a

<i>Variable</i>	Logged Family Income		Adult Occupational Status		Adult Passage Comprehension		Child Reading Skill	
	All	Latino	All	Latino	All	Latino	All	Latino
Education Not Included								
Born in Latin America	-0.412** (0.097)	-0.349** (0.11)	-8.965** (0.83)	-8.613** (0.80)	-7.369** (2.10)	-5.008** (0.17)	2.650 (3.00)	0.595 (3.32)
Born in South/East Asia	-0.700** (0.21)		0.335 (1.89)		-18.185** (3.79)		17.219** (5.00)	
Born in Other Country	-0.516** (0.14)		-1.015 (1.25)		-21.546** (2.40)		9.413** (3.28)	
Constant	2.811** (0.21)	2.281** (0.27)	51.631** (1.64)	49.184** (1.70)	21.658** (3.49)	6.713* (2.94)	49.315** (8.17)	
Educational Level								
Born in Latin America	-0.310** (0.10)	-0.218 (0.11)	-5.905** (0.84)	-5.538** (0.82)	-5.049* (2.00)	-2.791* (1.40)	3.608 (3.02)	0.910 (3.36)
Born in South/East Asia	-0.737** (0.21)		-0.138 (1.80)		-21.974** (3.60)		15.748** (5.03)	
Born in Other Country	-0.560** (0.14)		-1.853 (1.19)		-22.929** (2.27)		8.045** (3.31)	
Constant	2.542** (0.23)	1.992** (0.29)	42.147** (1.79)	42.244** (1.87)	10.399** (3.68)	-2.694 (3.11)	1.276 (3.31)	40.502** (11.79)
Educ. Level/Location								
Born in Latin America	-0.257* (0.12)	-0.108 (0.13)	-3.786** (0.96)	-2.653** (0.95)	-4.238* (1.87)	-2.253 (1.61)	4.889 (3.09)	1.870 (3.47)
Born in South/East Asia	-0.636** (0.22)		1.069 (1.82)		-15.240** (3.66)		16.951** (5.07)	
Born in Other Country	-0.447** (0.15)		-0.678 (1.24)		-15.194** (2.57)		9.043** (3.43)	
Constant	2.490** (0.25)	1.896** (0.31)	38.904** (1.95)	37.305** (2.08)	4.026* (4.06)	-9.169* (3.61)	40.088** (8.59)	34.899** (12.14)
N	2969	1703	2998	1727	1767	1010	1522	913

^aStandard errors in parentheses. Coefficients are from linear regression models. Omitted nativity category is U.S.-born.

* $p < .05$; ** $p < .01$

Income and occupation samples include both RSAs and PCGs. Reading comprehension sample includes only PCG respondents. For children's reading skill, sample includes RSC and sibling respondents. "Latino" sample is restricted to U.S.-born Latinos and those born in Latin America. All models also include race/ethnicity, age, sex, marital status, number of children in household, health during childhood, present health, documentation status, occupational status of household head at age 14, and occupational status of current household head (except occupational status and adult passage comprehension models). Adult and child reading skill models control for the language of the test and whether a non-English language is spoken at home. Child reading skill model also controls for child's age and parent's reading comprehension score.

Table 3: Financial, Occupational and Cognitive Returns to Adults' Schooling Level: L.A. FANS^a

<i>Variable</i>	Logged Family Income		Adult Occupational Status		Adult Passage Comprehension		Child Reading Skill	
	All	Latino	All	Latino	All	Latino	All	Latino
Some Secondary	0.189*	0.241*	1.927*	1.747*	3.025 [†]	3.877**	5.585*	6.071*
	(.10)	(0.11)	(0.84)	(0.84)	(1.62)	(1.31)	(2.24)	(2.44)
Secondary	0.236*	0.304**	3.264**	3.166**	3.862*	5.506**	3.553	2.406
	(0.10)	(0.12)	(0.84)	(0.85)	(1.64)	(1.37)	(2.36)	(2.69)
Some College	0.360**	0.453**	8.871**	8.788**	12.617**	11.535**	7.586**	3.141
	(0.12)	(0.15)	(0.96)	(1.09)	(1.89)	(1.74)	(2.74)	(3.53)
College or More	0.777**	0.749**	15.688**	14.108**	24.484**	21.381**	10.706**	4.644
	(0.12)	(0.19)	(1.00)	(1.34)	(1.99)	(2.16)	(3.00)	(4.39)
N	2969	1703	2998	1727	1767	1010	1522	913

^aStandard errors in parentheses. Coefficients are from linear regression models. Omitted category of education is completion of primary school or less.

* $p < .05$; ** $p < .01$

Income and occupation samples include both RSAs and PCGs. Reading comprehension sample includes only PCG respondents. For children's reading skill, sample includes RSC and sibling respondents. "Latino" sample is restricted to U.S.-born Latinos and those born in Latin America. All models also include race/ethnicity, sex, marital status, number of children in household, health during childhood, present health, documentation status, occupational status of household head at age 14, and occupational status of current household head (except occupational status and adult passage comprehension models). Adult and child reading skill models control for the language of the test and whether a non-English language is spoken at home. Child reading skill model also controls for child's age and parent's reading comprehension score.

Table 4. Financial, Occupational and Cognitive Returns to Adults' Schooling Level and Location: Main Effects. L.A. FANS^a

	Logged Family Income		Occupational Status		Adult Passage Comprehension		Child Reading Skill	
	All	Latino	All	Latino	All	Latino	All	Latino
Some U.S. Education at Highest Level	0.104 (0.098)	0.0858 (0.12)	3.390** (0.82)	4.291** (0.89)	-4.669* (2.08)	-0.462 (2.16)	5.138* (2.44)	6.573* (3.06)
All U.S. Education at Highest Level					7.925** (1.79)	6.091** (1.61)		
Some Secondary	0.168 (0.10)	0.228* (0.12)	1.224 (0.86)	1.036 (0.85)	2.417 (1.63)	3.436* (1.34)	4.586* (2.29)	4.930* (2.50)
Secondary	0.212* (0.10)	0.287* (0.12)	2.453** (0.86)	2.286** (0.87)	3.226 (1.66)	5.070** (1.41)	2.430 (2.42)	1.033 (2.76)
Some College	0.327** (0.12)	0.425** (0.16)	7.708** (1.00)	7.279** (1.13)	11.310** (1.92)	10.289** (1.80)	6.016* (2.84)	1.157 (3.64)
College or More	0.751** (0.13)	0.727** (0.19)	14.733** (1.02)	12.794** (1.36)	23.691** (2.00)	21.941** (2.17)	9.459** (3.06)	2.991 (4.45)
Constant	2.451** (0.25)	1.914** (0.31)	38.958** (1.95)	37.705** (2.09)	1.788 (4.12)	-9.237* (3.62)	40.336** (8.56)	34.237** (12.12)
N	2969	1703	2998	1727	1767	1010	1522	913

^aStandard errors in parentheses. Omitted schooling location category is no U.S. at highest level. Omitted category of education is primary highest. Analyses of income, occupation and children's reading skill distinguish between some/all and no U.S. schooling. Analyses of adult reading comprehension distinguish among all, some and no U.S. schooling.

*p<.05; ** p<.01

Income and occupation samples include RSAs and PCGs. Adult reading comprehension sample includes PCG respondents. Children's reading skill sample includes RSCs and siblings. "Latino" sample is restricted to U.S.-born Latinos and those born in Latin America. All models control for race/ethnicity, age, sex, marital status, number of children in household, health during childhood, present health, documentation status, occupational status of household head at age 14, and occupational status of current household head (except occupational status and adult passage comprehension models). Adult and child reading skill models control for the language of the test and whether a non-English language is spoken at home. Child reading skill model also controls for child's age and parent's reading comprehension score.

Table 5. Financial, Occupational and Cognitive Returns to Adults' Schooling Level and Location. L.A. FANS^a

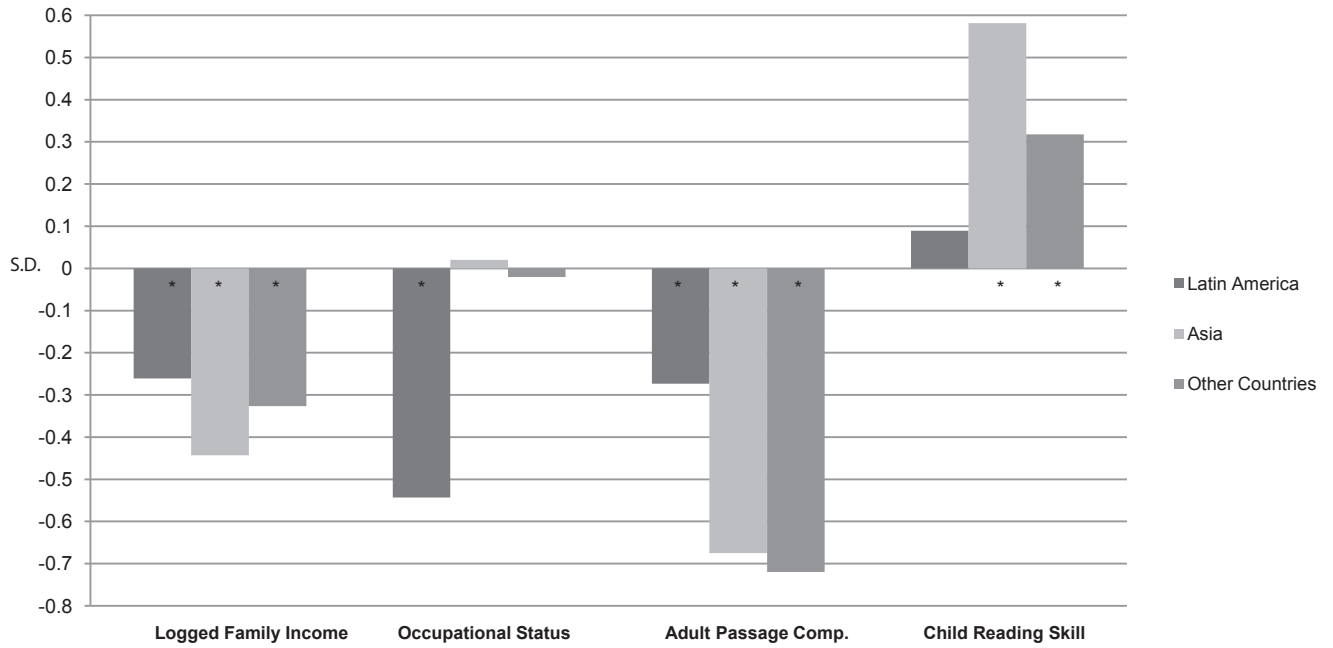
	Logged Family Income		Occupational Status		Adult Reading Comprehension		Child Reading Skill	
	All	Latino	All	Latino	All	Latino	All	Latino
Some secondary highest, no U.S.	0.207 (0.12)	0.230 (0.13)	1.243 (1.04)	1.135 (0.96)	4.075* (1.93)	4.583** (1.53)	5.286* (2.62)	5.150 (2.77)
Secondary highest, no U.S.	0.151 (0.13)	0.202 (0.14)	1.689 (1.08)	1.301 (1.03)	4.902* (2.04)	5.745** (1.67)	2.136 (2.99)	0.766 (3.24)
Some college highest, no U.S.	0.234 (0.26)	0.201 (0.29)	3.675 (2.21)	2.355 (2.14)	4.925 (3.84)	4.507 (3.06)	-0.0889 (5.58)	-1.032 (5.89)
College or more highest, no U.S.	0.306 (0.20)	0.100 (0.34)	14.311** (1.64)	10.045** (2.46)	18.592** (3.02)	15.057** (3.72)	13.680** (4.60)	13.874 (7.75)
<i>Coefficient Difference of Some vs. No U.S.</i>								
Primary highest	-0.301	-0.335	0.0254	0.00754	0.037	-0.0981	8.4	10.054
Some secondary highest	-0.359	0.019	2.897*	3.359*	1.797	1.743	4.47	6.425
Secondary highest	0.129	0.221	4.264**	5.791**	-4.79	-1.466	6.52*	7.34
Some college highest	0.154	0.361	7.627**	10.073**	3.095	4.786	-12.6131	9.436
College or more highest	0.562**	0.905*	3.774*	7.708**	-13.45**	-5.955	1.256*	-7.172
<i>Coefficient Difference of All vs. Some U.S.</i>								
Primary highest					2.451	3.7218		
Some secondary highest					-0.279	0.407		
Secondary highest					7.463	6.28		
Some college highest					9.67*	8.505		
College or more highest					26.17**	21.591**		
Constant	2.708** (0.26)	1.896** (0.31)	38.949** (1.95)	37.305** (2.08)	4.026 (4.06)	-9.169** (3.60)	40.088** (8.59)	34.899** (12.14)
<i>Wald Joint Significance Test for Schooling Location</i>								
χ^2 (9)	6.27	3.12	39.58	20.31			2.55	1.57
p> χ^2	0.00	0.00	0.00	0.00			0.01	0.12
χ^2 (14)					20.49	11.73		
p> χ^2					0.00	0.00		
N	2969	1703	2998	1727	1767	1010	1522	913

^aStandard errors in parentheses. Omitted schooling level/location category is primary highest, none in U.S. Analyses of income, occupation and children's reading skill distinguish between some/all and no U.S. schooling within each level. Analyses of adult reading comprehension distinguish among all, some and no U.S. schooling within each level.

*p<.05; ** p<.01 Asterisks in panel one indicates significance relative to omitted category. Asterisks in panels two and three indicate significance of the coefficient differences, obtained via Wald equality tests.

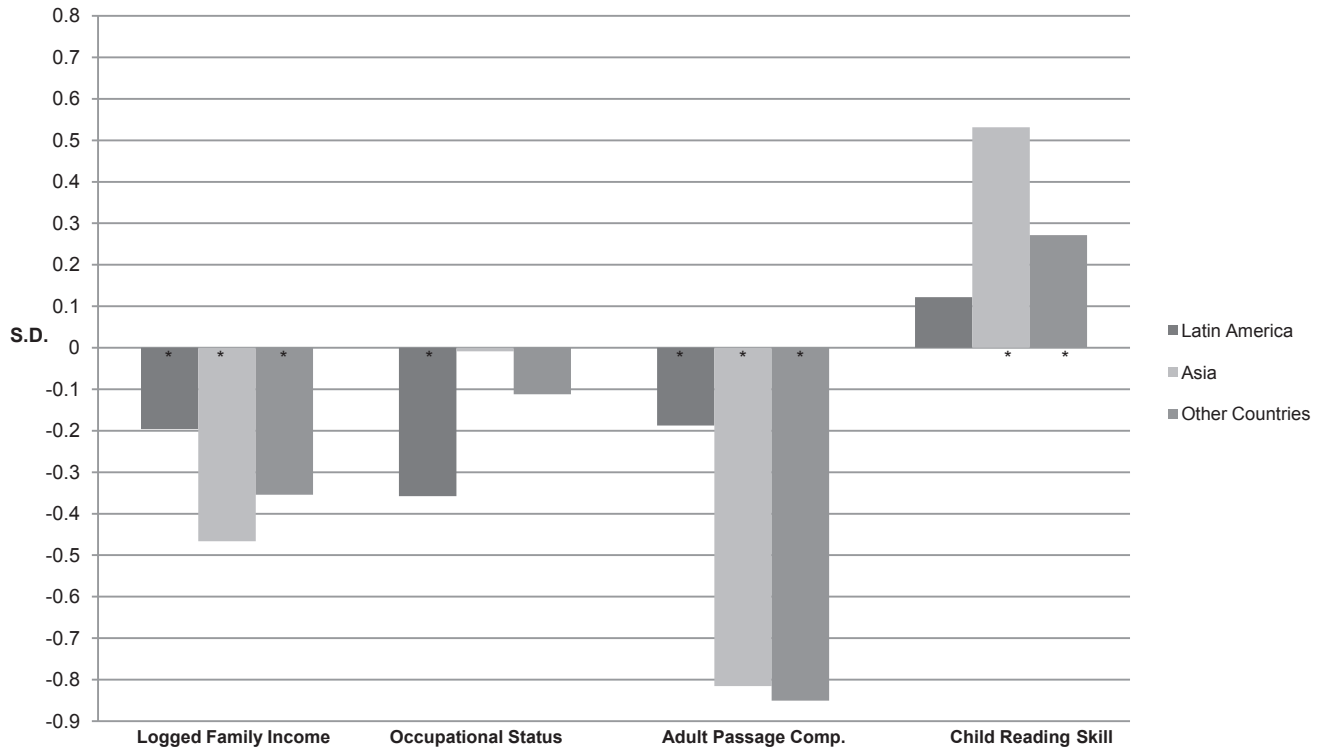
Income and occupation samples include RSAs and PCGs. Adult reading comprehension sample includes PCG respondents. Children's reading skill sample includes RSCs and siblings. "Latino" sample is restricted to U.S.-born Latinos and those born in Latin America. All models control for race/ethnicity, age, sex, marital status, number of children in household, health during childhood, present health, documentation status, occupational status of household head at age 14, and occupational status of current household head (except occupational status and adult passage comprehension models). Adult and child reading skill models control for the language of the test and whether a non-English language is spoken at home. Child reading skill model also controls for child's age and parent's reading comprehension score.

Figure 1a: Predicted Standard Deviation Differences in Attainment, by Nativity: L.A. FANS

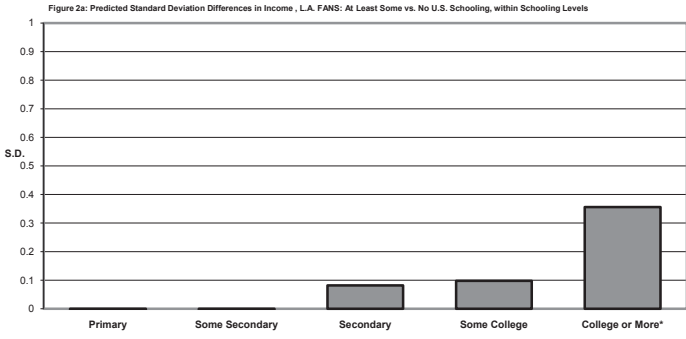


Coefficients come from Table 2. Reference category is U.S.-born adults. * denotes statistically significant difference from reference category (p<0.05)

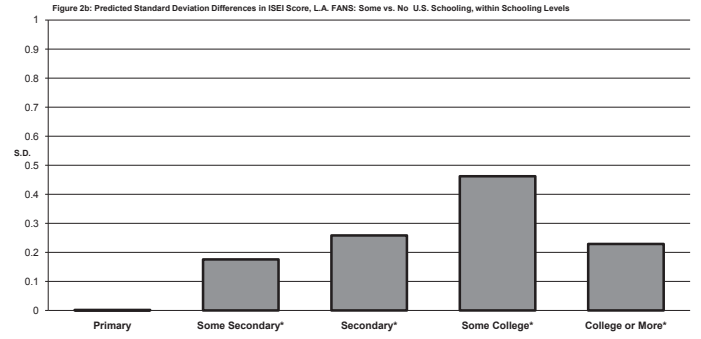
Figure 1b: Predicted Standard Deviation Differences in Attainment by Nativity, Adjusted for Schooling Level: L.A. FANS



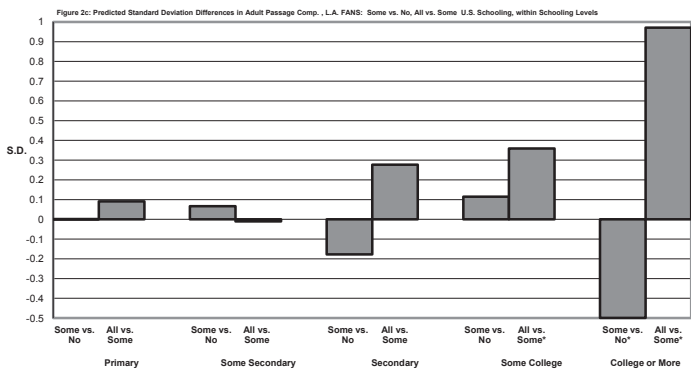
Coefficients come from Table 2. Reference category is U.S.-born adults. * denotes statistically significant difference from reference category (p<0.05)



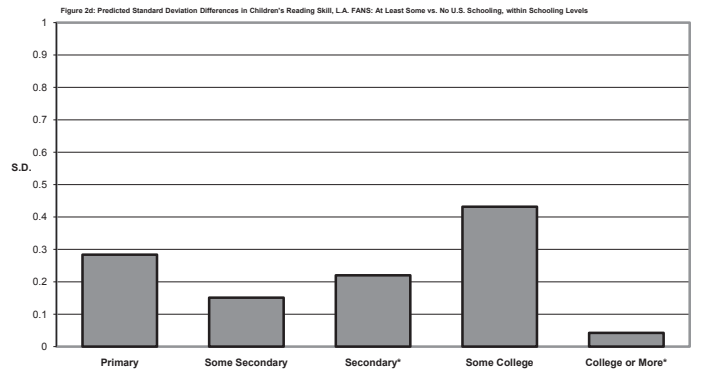
Coefficients come from Table 5. * denotes statistically significant difference ($p < .05$, based on Wald equality tests) of at least some U.S. schooling from no U.S. schooling, within educational levels



Coefficients come from Table 5. * denotes statistically significant difference ($p < .05$, based on Wald equality tests) of at least some U.S. schooling from no U.S. schooling, within educational levels

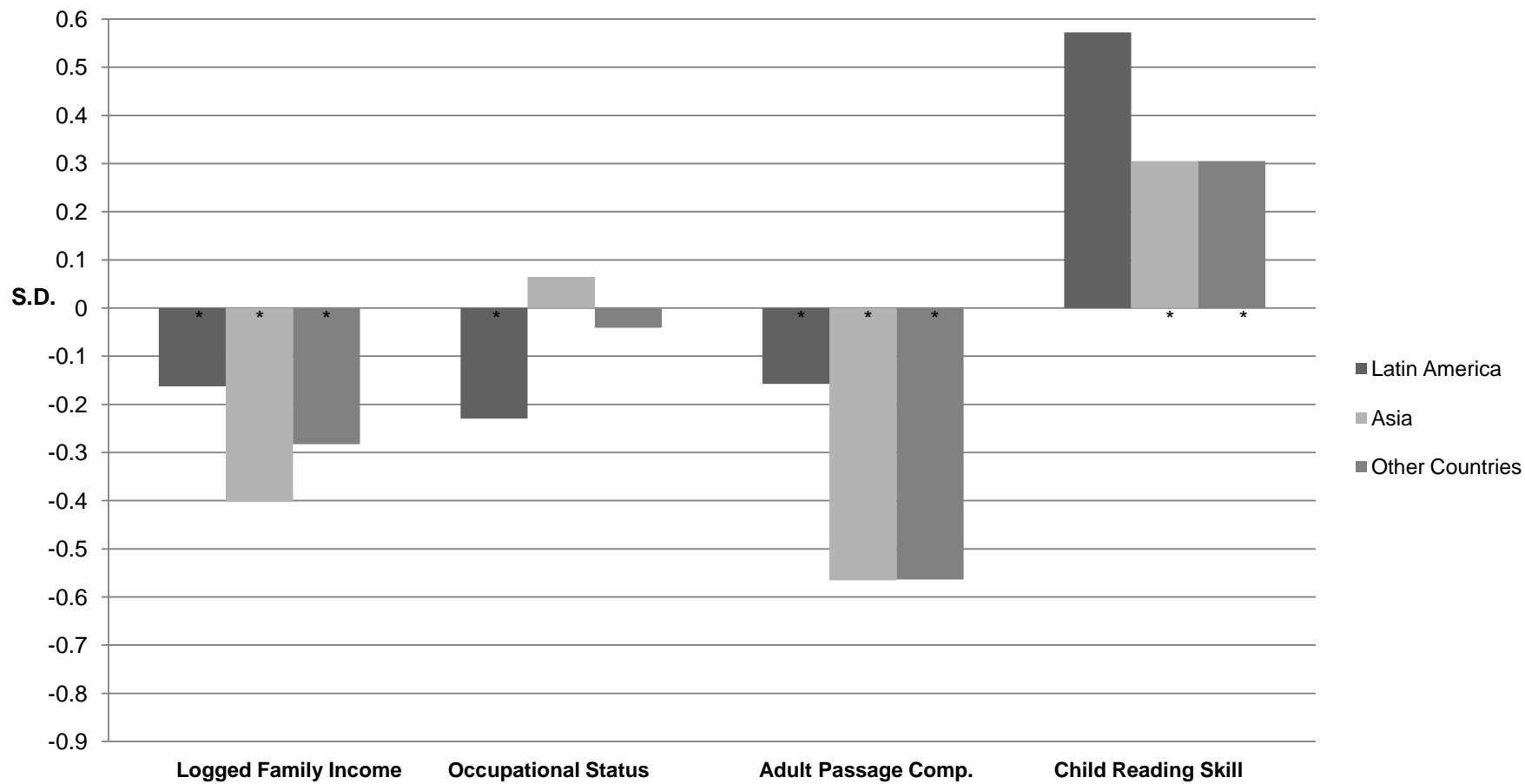


Coefficients come from Table 5. * denotes statistically significant difference ($p < .05$, based on Wald equality tests) from other schooling locations within educational levels



Coefficients from Table 5. * denotes statistically significant difference ($p < .05$, based on Wald equality tests) of at least some U.S. schooling from no U.S. schooling, within educational levels

Figure 3: Predicted Standard Deviation Differences in Attainment by Nativity, Adjusted for Schooling Level and Location: L.A. FANS



Coefficients come from Table 2. Reference category is U.S.-born adults. * denotes statistically significant difference from reference category (p<0.05)