Title: Post-Secondary Educational Attainment of Immigrant and Native Youth

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INTRODUCTION

The United States' population is becoming increasingly diverse. Today, immigration accounts for more then one third of the nation's total observed annual demographic increase. The foreign-born population is currently hovering a little over 34 million, which corresponds to about 12 percent of the total U.S. population, the highest percentage observed in over 80 years (Center for Immigration Studies 2004). Unlike the early 1900s, when the majority of immigrants came from Europe, the majority of immigrants to the United States in 2000 were born in Latin America or in Asia. It is estimated that at least 40 percent of Latinos and 60 percent of Asians in the U.S. today are foreign-born (Schmidley 2000).

First and second generation immigrants also make up a considerable proportion of students in the United States. Approximately one fifth of all school-aged children are immigrants or the children of immigrants (Rumbaut 1999, Suarez-Orozco and Suarez-Orozco 2001). Immigrant school-aged children are the fastest growing and the most ethnically diverse segment of America's child population (Schmid 2001). In 1997, the United States had 3 million foreign-born children under 18 years of age, and almost 11 million U.S.-born children under 18 were living with at least one foreign-born parent (Alba, Massey, and Rumbaut 1999). As the large influx of immigrants to the U.S. persists at a level approaching one million per year, the number of immigrant children is likely to increase as well. Therefore, the future of the American society is ultimately related to the adaptation of immigrants and their children, even with possible future efforts to reduce immigration

(Pumariega, Rothe et al. 2005). Yet, to date, little is known about the extent to which the educational experiences of this growing population of children over the life course will diverge from those born in the U.S. (Portes and Zhou 1993; Rumbaut 1999; Zhou 1997).

This paper adds to the growing immigrant literature and seeks to examine generational differences in post-secondary educational outcomes in the United States. We specifically seek to better understand immigrant educational arrangements in the years immediately following high school graduation. Although some recent research finds that immigrant school children often experience an advantage in terms of educational achievement when compared to native-born school children of similar race/ethnicity and socioeconomic characteristics (Farley and Alba 2002; Hirschman 1996; Jensen and Chitose, 1996; Kao, 1999; Kao and Tienda 1995; Portes and Rumbaut 1996, 2001, Portes and Zhou, 1993; Rumbaut, 1997, 1999; Tillman et al. 2006), it is unclear to what extent this advantage translates into educational gains after high school.

We use data from the National Longitudinal Study of Adolescent Health (Add Health) to examine immigrant generation and country-of-origin differences in predicting college attendance of young adults between the ages of 18 and 28. In particular, we will address the following research questions: (1) Does immigrant generation affect young adult educational outcomes? If so, how is the association affected by socio-demographic, racial/ethnic and family background factors. (2) Furthermore, can immigrant generation differences be explained by parental behaviors, expectations and relationships?

IMMIGRANT EDUCATIONAL BACKGROUND

Most of the prior research concerning immigrant school children has explored their assimilation and adaptation in terms of linguistic and educational outcomes (Tillman 2001). Social scientists have previously examined enrollment rates, drop out rates, graduation rates, grade retention levels and other measures of educational achievement during childhood and adolescence. Although the general public perception, particularly in areas of the United States with large foreign-born populations, largely holds that immigrant children pose a serious burden to and undermine the quality of the American educational system, current research has indicated that immigrant children generally perform well in school (Farley and Alba 2002; Hirschman 1996; Jensen and Chitose, 1996; Kao, 1999; Kao and Tienda 1995; Portes and Rumbaut 1996, 2001, Portes and Zhou, 1993; Rumbaut, 1997, 1999, Tillman et al. 2006). Some studies have shown, however, that educational and economic progress among immigrant groups is extremely uneven. For instance, in 1990, only 74 percent of Mexican immigrants aged fifteen to seventeen attended school compared with 95 percent of natives and other immigrants (Hao and Bonstead-Bruns 1998). Yet, relatively few social scientists have explored educational attainment of immigrant youth after high school or how country-of-origin differences influence these outcomes.

Recent research on immigrant status and college attendance has shown some generational effects. Song and Glick (2004) find that foreign-born Asians are much more likely to attend college than their native-born counterparts. Moreover, Bailey and Weininger (2002) clarify that foreign-born students who graduated from a U.S. high school are more likely than native-born students to enroll in a four-year program, while those who graduated from high school abroad are more likely to enroll in a two-year program. They conclude that after controlling for skills, demographic and background characteristics, nativity was a

statistically significant predictor of credits earned, completion of an associate's degree, and transfer to a bachelor's program.

Several studies have also examined the relative importance of race and ethnicity to the academic outcomes of immigrants. One study that has examined immigrant students in college concludes that a student's racial and ethnic background may have a stronger direct effect on his or her post-secondary experience than his or her nativity status (Vernez and Abrahamse 1996). Furthermore, data collected during 1996-1997 for the National Postsecondary Aid Student Survey also lends some support to the idea that race has a stronger direct effect than nativity on whether a student enrolls in a two- or four-year program (National Center for Educational Statistics 1999). However, these studies have not examined whether there are significant interactions between immigration generation status and race or country-of-origin. This study can address these issues.

Learning more about generational differences in post-secondary education is important because the success with which individuals navigate the educational system during their youth is vital to their long-term socioeconomic outcomes during adulthood. The majority of immigrants come to the United States in search of the "American Dream" and/or to provide their children with an enhanced opportunity for security and financial advancement. While educational performance is vital for future higher education success, educational attainment is also key in affecting eventual labor market outcomes. Educational aspirations are universally high among all adolescents, as most young people anticipate attending college (Kao and Thompson 2003). Yet, there is not much current research exploring how parental behavior and expectations may be affecting the aspirations for young immigrant adults or whether these youth are able to translate high expectations into college attendance and graduation. In this

study, we will be able to examine the influence of family background factors, as well as immigrant parents' behaviors and expectations of their children.

ASSIMILATION THEORY

According to traditional assimilation theory, immigrants, particularly the first generation, are frequently held back by their newcomer status and are rarely expected to achieve socioeconomic equivalence with the native population. Several of the obstacles they encounter are learning a new language, lack of recognition of their educational qualifications from a different system and a native hostility toward those with foreign accents and cultures. Warner and Srole's (1945) "straightline assimilation" theory has often been used to explain changes in the ethnic identification, behavior, and social outcomes of immigrants. This model proposes that the social and economic outcomes of immigrants are expected to be lower than those of their native-born peers because of the trauma and stress, as well as the social, economic, and linguistic disadvantages, associated with the immigration process. The foreign-born and their children must acculturate and seek acceptance among the native-born population as a requirement for social and economic advancement. Thus, this theory suggests that young adult immigrants will have less educational attainment, and fewer occupational opportunities, and less upward mobility than native adults of similar age. However, length of residence in addition to increasing generation will result in gradually narrowing these differentials with the native-born population.

Conversely, segmented assimilation theory (Portes and Rumbaut 2001; Hirschman 2001; Harris 1999; Portes and Zhou 1993), suggests that immigrants experience divergent pathways of assimilation that may result in upward and/or downward mobility for various

immigrant groups. Recent research has found that first generation immigrants are not always at a disadvantage socially and economically. Furthermore, research suggests that assimilation may actually lead to a deterioration of outcomes over time and generation spent in the United States (Harris, 1999; Hirschman, 1996; Portes and Rumbaut, 2001; Portes and Zhou, 1993; Rumbaut, 1997; White and Glick, 2000). Hence, one can conclude that immigrant status may sometimes be protective against social and economic hardship. This theory may explain why immigrant school children, despite being faced with many social and economic disadvantages, have very strong academic outcomes as compared to those of their same-race native-born counterparts.

The ways in which assimilation or acculturation affect mobility may be conditioned by the human and cultural capital immigrants bring with them, in addition to the community and social contexts into which they settle. Country-of-origin and racial/ethnic differences may be associated with different levels of human and cultural capital and with the kinds of communities in which foreign-born people reside. In terms of human and cultural capital, we are interested in investigating family context, including socioeconomic status, parental values, expectations and behaviors and access to other family resources. It is, therefore, essential to explore country-of-origin and racial/ethnic differences, as well as generation differences in the academic and occupational outcomes of immigrants in America.

Based on findings of previous studies and these theoretical perspectives, we have developed three main hypotheses regarding immigrant status and educational outcomes. First, we predict a generational disparity in college attendance for young adult immigrants, where immigrant and second-generation adolescents are more likely to attend college than their third- generation U.S.-born counterparts. Second, college attendance will vary by country-of-

origin. Lastly, we hypothesize that the parental/ family influences will play an important role in predicting college attendance.

METHODS

Data

The National Longitudinal Study of Adolescent Health (Add Health), which is a nationally representative study of adolescents in grades 7 through 12 in the United States in 1995, used a multistage, stratified, school-based, cluster sampling design. This study was designed to explain the causes of adolescent health and health behavior, primarily focusing on the multiple circumstances in which they live and their outcomes in young adulthood. Included in the sample were students from 80 high schools (both public and private) and a corresponding feeder junior high or middle school. Minority ethnic groups were sampled in proportion to their size within the United States population, however smaller ethnic groups were oversampled (Harris et al. 2003)

Data for this study was collected in three consecutive waves between the years 1994 and 2002. In Wave I all students were of the ages 12 to 21 years and by Wave III the students were between the ages of 18 to 28 years. Wave III data contains follow-up interviews with 14,979 original Wave I respondents and pre-test data contain an additional 218 respondents, for a total of 15,197 respondents. We will use data from Wave I and Wave III, drawing from the extensive in-home interviews conducted in each of those waves. In addition, we will use the parental questionnaires from Wave I and the high school transcript data released at Wave III (See Bearman, Jones and Udry 1997 for more details on Add Health.)

The analytic sample includes all respondents from the in-home interviews who have fully completed interviews for both Wave I and Wave III, regardless of immigrant status or racial/ethnic background. For consistency purposes, the central predictor and control variables are taken from Wave I and the outcome variable, college attendance, is taken from the most current wave, Wave III. After limiting our sample size to only those with completed data, our final analytic sample is 13,231 young adults. Throughout the analyses we will adjust for the Add Health's cluster sampling design. In addition, we control for differential sampling probabilities among individuals by utilizing the Add Health grand sample weights in all estimation procedures (Chantala and Tabor 1999).

Measures

The dependent measure in this study is college attendance. We assess college attendance with a dichotomous variable measuring whether the respondent is currently attending college and/or has any college education (1) or not currently attending college and/or has no college education (0).

Immigrant generation status is determined by both the youth's and the parents' country of origin as specified in Wave I. (Harker 2001). We classify the young adults as first-, second-, or third-plus generation immigrants. First generation immigrants are people who are born abroad or not as a U.S. citizen in a foreign country. Second generation individuals are those who have at least one parent of foreign birth, but who themselves were either born in the United States or in a foreign country as a U.S. citizen. Finally, young adults who are born in the U.S. to parents who were also born in the United States are the third-plus generation. All third-plus generation individuals are considered to be part of the native-born American population (Harker 2001).

The demographic variables, sex and age, are taken from Wave I's in-home interview. Region of country, location of residence and school type are obtained through the Wave I school administration questionnaire. Region of country is broken down into four dummy variables indicating West, Midwest, South, and Northeast, and location of residence is measured with three dummy variables indicating urban, suburban, and rural. We also incorporate school type into our analyses; this variable is dichotomized into public and private schools.

We examine various family background variables that represent the structural and cultural features of the family environment at Wave I (Harker 2001). We use family annual income, the highest educational attainment of both of the parents, family structure, and primary language spoken at home. Family income and highest parental education, from now on called family education, are the only variables obtained from the Wave I parental questionnaire. Five dummy variables are created for family income: $15,000 or less, $16-34,000, $35-59,000, $60,000 or more, and missing income data. Family education is measured as four dummy variables: less than high school, high school graduate or GED, more than high school, and missing education data. Family structure is measured with four dummy categories: two-biological parents, stepparents, single parent, and other family form (for instance, grandparents, other relatives, group homes).

To explore level of acculturation, we include language spoken in the home and this measure is separated into three groups, indicating the primary use of English, Spanish, or another language in the home. Parental control is also included in this analysis. It is an index representing mean item score of six questions (1 to 5) and assesses how much control the youth feels she or he has over their own lives. Examples of the items include: "Do your

parents control how much watch television you watch on a daily basis?", "Do your parents control the type of clothing you wear?" and "Do your parents control how much time you spend out on a weeknight?" Parental behaviors, such as involvement with school related matters and parental expectations will be examined.

Race/ethnicity, as measured in Wave I, is classified as the respondent's self-identified ethnicity in combination with the county of origin for immigrant children or the country of parents' origin for children of immigrants, and was contrasted against the parallel ethnic group identified for youth in native-born families (Harris 1999). The racial/ethnic categories in this analysis include Mexican, Cuban, Central/South American, Puerto Rican, Chinese, Filipino, Other Asian/Pacific Islander, African/Afro-Caribbean, European/Canadian.

ANALYSIS

The multivariate analyses use binary logistic regression to estimate the effects of socioeconomic status, family structure, and parental control on youth obtaining a college education. The logistic regression analyses account for the multistage, stratified, school-based, cluster sampling design of Add Health by using the robust estimator of variance procedure in Stata (also known as the Huber or White estimator of variance). The first model examines only the generational differences in college attendance. The second model adds variables for age and gender. As predicted by our first hypothesis, model three incorporates racial/ethnic differences; and socioeconomic and family background factors are supplemented in models four and five, respectively. The last model in our analysis controls for the influence of parental behavior and expectations as is predicted by the second hypothesis.

Works Cited

Alba, Richard, Douglas Massey, and Ruben G. Rumbaut. 1999. *The Immigration Experience for Families and Children.* Washington, DC: American Sociological Association.

Bailey, Thomas, and Elliot B. Weininger. 2002. "Performance, Graduation, and Transfer of Immigrants and Natives in City University of New York Community Colleges." *Educational Evaluation and Policy Analysis* 24 (4):359-377.

Bernstein, Robert. 2004. U.S. Bureau of the Census News.
<http://www.census.gov/Press-Release/www/releases/archives/foreignborn_population/002341.html>

Chantala, K., and J. Tabor, 1999. Strategies to Perform a Design-Based Analysis Using the Add Health Data.[WWW document]. Available from: <www.cpc.unc.edu/projects/addhealth/news.html>.

Farley, Reynolds and Richard Alba. 2002. "The New Second Generation in the United States." *International Migration Review* 36(3):669-701.

Harris, K.M., 1999. *The health status and risk behavior of adolescents in immigrant families*. In: Hernandez, D.J. (Ed.), Children of Immigrants: Health, Adjustment and Public Assistance. National Academy of Sciences Press, Washington, DC, pp. 286–347.

Hirschman, Charles. 1996. "Studying Immigrant Adaptation from the 1990 Population Census: From Generational Comparisons to the Process of 'Becoming American.'" Pp. 54-81 in *The New Second Generation*, edited by Alejandro Portes. New York: Russell Sage Foundation.

Hao, Lingxin, and Melissa Bonstead-Bruns. 1998. "Parent-Child Differences in Educational Expectations and Academic Achievement of Immigrant and Native Students." *Sociology of Education* 71:175-198.

Harker, Kathryn. 2001. "Immigrant Generation, Assimilation, and Adoclescent Psychological Well-being." *Social Forces* 79(3):969-1004.

Harris, K.M., Florey, F., Tabor, J.W., Bearman, P.S., Jones, J., Udry, J.R., 2003. The National Longitudinal Study of Adolescent Health: Research Design [WWW document]. Available from:<www.cpc.unc.edu/projects/addhealth/design.html>.

Jensen, L., and Y. Chitose. 1996. *Today's second generation: evidence from the 1990 census.* In: Portes, A. (Ed.), The New Second Generation. Russell Sage Foundation, New York, pp. 82–107.

Kao, Grace and Jennifer S. Thompson. 2003. "Racial and Ethnic Stratification in Educational Achievement and Attainment." *Annual Review of Sociology* 29:417-42.

Kao, Grace. 1999. *Psychological wellbeing and educational achievement among immigrant youth.* In:Hernandez, D.J. (Ed.), Children of Immigrants: Health, Adjustment, and Public Assistance. National Academy Press, Washington, DC, pp. 410–477.

Kao, Grace, and Marta Tienda. 1995. Optimism and achievement: the educational performance of immigrant youth. *Social Science Quarterly* 76, 1–19.

National Center for Education Statistics. 1999. National Postsecondary Student Aid Survey: 1995-96 [data file]. Washington, D.C.: U.S. Department of Education.

Portes, Alejandro and Min Zhou. 1993. "The New Second Generation: Segmented Assimilation and Its Variants." *Annals of the American Academy of Political and Social Sciences* 530:74-96.

Portes, Alejandro, and Ruben Rumbaut. 1996. *Immigrant America: A Portrait.* University of California Press, Berkeley.

Portes, Alejandro, and Ruben Rumbaut. 2001. *Legacies: The Story of the Immigrant Second Generation.* University of California Press, Berkeley.

Powers, M.G. and W. Seltzer. 1998. "Occupational Status and Mobility Among Undocumented Immigrants by Gender?" *International Migration Review* 32:21-55.

Rumbaut, Ruben G. 1999. "Assimilation and Its Discontents: Ironies and Paradoxes." Pp. 172-195 in *The Handbook of International Migration*: The American Experience, edited by Josh DeWind, Charles Hirschman, and Philip Kasinitz. New York: Russell Sage Foundation.

Rumbaut, Ruben G., 1997. Assimilation and its discontents: between rhetoric and reality. *International Migration Review* 31(4): 923–960.

Schmid, Carol L. 2001. "Educational Achievement, Language-Minority Students, and the New Second Generation." *Sociology of Education* 74:71-87.

Song, Chunyan and Jennifer E. Glick. 2004. "College Attendance and Choice of College Majors Among Asian-American Students." *Social Science Quarterly* 85(5):1401-1421.

Suarez-Orozco C. and Suarez-Orozco MM. 2001. *Children of Immigration*. Cambridge, MA: Harvard University Press.

Tillman, Kathryn. Forthcoming. "Grade Retention Among Immigrant Children."
<http://www.sciencedirect.com/science?_ob=MImg&_imagekey=B6WX8-4DD95H1-2-9&_cdi=7152&_user=2139768&_orig=browse&_coverDate=09%2F27%2F2004&_sk=999999999&view=c&wchp=dGLzVzz-zSkWz&md5=741fa591db276383c979efc21ad2d191&ie=/sdarticle.pdf>

Vernez, G., and A. Abrahamse. 1996. *How Immigrants Fare in U.S. Education*. New York: The RAND Corporation.

Warner, W.Lloyd, and Leo Srole. 1945. *The Social Systems of American Ethnic Groups*. Yale University Press.

White, Michael J., and Jennifer E. Glick. 2000. "Generation status, social capital, and the routes out of high school." *Sociological Forum* 15 (4), 671–691.

Zhou, Min. 1997. “Growing Up American: The Challenge Confronting Immigrant Children and Children of Immigrants.” *Annual Review of Sociology* 23:63-95.