# Center for Studies in Demography and Ecology



The Educational Enrollment of Immigrant Youth: A Test of the Segmented-Assimilation Hypothesis

by

Charles Hirschman University of Washington

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Charles Hirschman Center for Studies in Demography and Ecology Department of Sociology, Box 353340 University of Washington Seattle, Washington 98195-3340

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#### Abstract

An analysis of 1990 Census data on the educational enrollment of 15 to 17 year old immigrants to the United States provides support for predictions from the segmented assimilation hypothesis and the immigrant optimism hypothesis, but there is a wide diversity of patterns that does not conform to a single theoretical interpretation. Recent Mexican immigrants who arrived as teenagers have non-enrollment rates of over 40 percent, but Mexican youth who arrived at younger ages are only somewhat less likely to be enrolled in school than are native born Americans. Most immigrant adolescents, especially from Asia, are as likely or more likely than their native born peers to be enrolled in high school. The "at risk" immigrant youths with above average levels of non-enrollment that is not reduced with longer exposure to American society are primarily of Hispanic Caribbean origins (from Puerto Rico, the Dominican Republic, and Cuba).

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#### **INTRODUCTION**

The fate of the new immigrants from Latin America and Asia to the United States—popularly known as the post-1965 wave of immigration—is one of the most significant social and political issues in contemporary American society (Portes and Rumbaut 1996). The conventional model of assimilation, largely based on empirical generalizations of the early twentieth century immigration experience, predicts that the new immigrants and their descendants will advance up the socioeconomic ladder and eventually be absorbed into the social and political institutions of American society (Alba and Nee 1997, Smith and Edmonston 1997, chapter 8). The assimilation experience of earlier waves of European immigrants was neither smooth nor painless, but it did happen, typically over the course of one or two generations. Even though some ethnic neighborhoods and associations remain today, the children and grandchildren of earlier waves of immigrants have experienced upward socioeconomic mobility, residential integration, and intermarriage over the course of the twentieth century (Alba 1990, Lieberson 1980).

This expectation of eventual progress has, however, been challenged by more pessimistic arguments of "second generation decline" and "segmented assimilation" (Gans 1992, Portes and Zhou 1992). The argument is that American society has changed in fundamental ways that make it less receptive to new immigrants than in earlier times. There has always been some hostility and discrimination against immigrants, but this was counter-balanced by a need for immigrant labor. Indeed, much of the industrial economy in many East Coast and Midwestern cities was built by immigrant labor. For much of the first half of the century, the stable employment of immigrants, whether in industry or in small scale retailing, provided a sufficient economic base to sponsor the education of their children and to launch their social and economic mobility.

The pessimistic interpretation assumes that the widening income inequality of late twentieth century America has been accompanied by a growing bifurcation between highly paid jobs at the top and dead-end service jobs at the bottom. This new economy is thought to provide fewer opportunities for unskilled immigrants to secure an economic foothold to sponsor the upward mobility of their children (Zhou 1997). Recent immigrant children, in addition to having weaker family economic resources, are also thought to be predominately enrolled in inner-city public schools which often have a demoralized educational climate. In this situation, the assimilation of immigrant children to the immediate American environment might well lead to a path of downward socioeconomic mobility.

Firm conclusions on the socioeconomic mobility of the new wave of immigrants to the United States cannot be made—most of the immigrants have been in the country for a relatively short period and most of the second generation are still children or adolescents (Portes 1996). It is as if we were trying to measure the progress of the immigrants from Southern and Eastern Europe in 1910—some tentative patterns can be observed, but the full story will only be evident several decades hence.

Given the limited time horizon at present, this study tests the segmented assimilation hypothesis with a focus on the educational experiences of youthful immigrants, namely the enrollment of foreign-born youth, age 15-17, in 1990. In an earlier study, I concluded that there was little evidence in support of the segmented assimilation hypothesis based on the generally positive association between duration of residence in the United States and educational enrollment among immigrant adolescents and young adults in 1990 (Hirschman 1996). That conclusion is revised here based upon an analysis of more detailed data from the 1990 Census Public Use Microdata Sample (PUMS) files. There are signs of persistent higher rates of educational non-enrollment among Puerto Rican and other Hispanic Caribbean immigrant populations that is not attenuated with longer residence in the U.S.

#### THEORETICAL PERSPECTIVES

The most general theoretical perspective on the incorporation of immigrants is assimilation theory. Assimilation theory predicts that, over time and across generations, the descendants of immigrants will become more similar to natives—perhaps becoming indistinguishable from the general population or as phrased in Park and Burgess's memorable definition, "sharing a common historical memory" (Park and Burgess 1969: 360). The very generality of assimilation theory is at once its greatest virtue and its greatest liability. Any evidence of the narrowing of socioeconomic or cultural differences between groups can be taken as evidence in support of the theory, but evidence of persisting differences can be cited as the failure of assimilation theory (Glazer and Moynihan 1970).

The most important conceptual advance in assimilation theory was Gordon's (1964) statement on the multidimensional character of assimilation and the recognition that temporal change in one dimension did not immediately (or inevitably) lead to change in other dimensions. Some aspects of assimilation, such as language acquisition and familiarity with local culture, may be a direct result of exposure or experiences in the host society. These outcomes may be considered as at least partially under the control of the immigrant population. Other aspects of assimilation, such as intermarriage and entry into primary group associations with members of the host society, depend on the nature of reception and/or discrimination encountered by the immigrant population.

These complexities reveal the fundamental problem of assimilation theory, which is the lack of a clear specification of how the various dimensions are related to each other as well as the lack of a model of the causal processes that have shaped the historical process of assimilation. At the broadest level, patterns of isolation and/or integration between immigrants and the host society may depend not only on the characteristics of immigrants and natives, but also on interactions between them. Moreover, unique historical conditions such as labor demand in agriculture and/or industry, the openness of the political system to participation by immigrants and their descendants, and episodes of inter-ethnic violence may be critical factors in shaping processes of accommodation and assimilation. Although the goal of social theory is parsimony, the field has not moved in this direction.

Even without a satisfactory theoretical explanation, there is considerable evidence that the descendants of immigrants from Southern and Eastern Europe who arrived from 1880 and 1924 had largely been absorbed into the main institutions of American society by the middle decades of the twentieth century (Alba and Golden 1986, Duncan and Duncan 1968, Hirschman 1983, Lieberson and Waters 1988, Neidert and Farley 1985). In a recent review essay, Alba and Nee (1997) conclude that assimilation has been the master trend experienced by the descendants of early twentieth century immigrants to the United States. In spite of the empirical confirmation of this significant historical case, there is still considerable debate on the eventual fate of the new wave of immigration from Latin America and Asia to the United States. Since the late 1960s, almost 20 million persons have received immigrant visas (U.S. Department of Justice 1965-1996). By the late 1990s, about 1/5 of the total U.S. population—over 50 million people—are first or second generation Americans (Farley 1999). This new wave of immigrants, the largest influx since the early years of the century, is once again raising questions about the absorptive capacity of American society.

There are differing accounts and interpretations about the progress of the new immigrants in American schools without a clear consensus. The amazing educational success of recent Asian immigrant children has been widely noted and typically explained as a product of cohesive Asian families and cultural values (Caplan, Choy, and Whitmore 1991, Fejgin 1995, Schneider and Lee 1990). Sue and Okazaki (1990), however, suggest that the emphasis of Asian immigrants on the education of their children, especially in mathematics and science, may reflect a belief that Asians experience discrimination in fields where merit is assessed subjectively. There is even less agreement on the reasons for the educational problems experienced by Hispanics, especially Mexican Americans (Matute-Bianchi 1986, Fernandez and Paulsen 1989). Basic empirical questions, such as whether there is an advance in education from the first to native born Mexican Americans seem to vary depending on the data source and the measure of education used (Rong and Grant 1992 Wojtkeiwicz and Donanto 1995, Zsembik and Llanes 1996).

A recent study by Landale, Opresa, and Llanes (1998) has identified forces that work in different directions across three generations of Mexican Americans. First, there is a newcomer's disadvantage in educational enrollment, evident among immigrants, especially among those who arrived as teenagers. There appears to be an "advantage" (higher educational enrollment rates) for the children of immigrants (sometimes evident among immigrants who arrived at a young age) relative to the third or higher generations. This finding of a modest advantage for second generation was labelled as the "the immigrant optimism hypothesis" by Kao and Tienda (1995) with the interpretation that the attitudes for upward mobility of immigrants are passed along to their children, but wash out by the third generation (also see Boyd and Grieco 1998). They find the strongest support for immigrant optimism for Asians, but there is some support among Hispanics in terms of aspirations for college (Kao and Tienda 1995: 11).

The finding of second generation immigrant success in schooling is not an entirely new phenomenon. In 1910, the educational enrollment of foreign born children lagged behind those of native white children, but the enrollments of most second generation (children of immigrants) national origin groups were generally equal or superior to those of native whites of native parentage (Jacobs and Greene 1994). Foreign born children appear to be handicapped by lack of English language fluency and by the parental social class, but when these factors are controlled (or if the second generation is observed) the gaps in educational enrollments between immigrant children and their native born peers are substantially moderated or eliminated.

A more complex theoretical account of how and why the new immigrants and their children may follow rather different paths of incorporation into American society than did earlier waves of immigrants is the segmented assimilation hypothesis of Portes and Zhou (1993). Segmented assimilation implies a diversity of outcomes within and between contemporary immigrant streams. According to the theory, some immigrant groups with high levels of human capital and who receive a favorable reception may be quickly launched on a path of upward socioeconomic mobility and integration. Other groups with fewer resources may not be able to find stable employment or wages that allow them to

successfully sponsor the education and upward mobility of their children. Indeed the second generation may be exposed to the adolescent culture of inner city schools and communities that discourages education and aspirations for social mobility (Gibson and Ogbu 1991, C. and M. Suarez-Orozco 1995). A third path is one of limited assimilation, where immigrant parents seek to sponsor the educational success of their children, but to limit their acculturation into American youth society by reinforcing traditional cultural values.

The segmented assimilation hypothesis provides a lens to understand the discrepant research findings on the educational enrollment of recent immigrants and the children of immigrants in the United States. Rather than expecting a similar process of successful adaptation with greater exposure (longer duration of residence) to American society, the segmented assimilation hypothesis predicts that adaptation is contingent on geographical location, social class of family-of-origin, "race," and place of birth. The segmented assimilation interpretation has been supported by case studies of particular immigrant/ethnic populations that have been able to utilize community resources to pursue a strategy of encouraging the socioeconomic mobility of their children, but only selective acculturation to American society. In their study of the Vietnamese community in New Orleans, Zhou and Bankston (1998) report children who were able to retain their mother tongue and traditional values were more successful in schooling. This outcome is consistent with research that found that Sikh immigrant children were successful precisely because they were able to accommodate to the American educational environment without losing their ethnic identity and assimilating to American society (Gibson 1988).

The segmented assimilation and immigrant optimism hypotheses have opposite predictions for immigrants who came as children. Segmented assimilation would predict that longer residence in the country would be disadvantageous, at least for some immigrant groups because of the greater likelihood of acculturation to minority peers in inner city environments with consequent lower educational aspirations. The immigrant optimism hypothesis predicts that the second generation (and immigrants who came as small children) will have the best of both worlds—they have the advantage of mastery of English

and growing up in American institutions, but they also inherit the positive attitudes about American society and determination for upward mobility from their immigrant parents.

#### DATA AND MEASUREMENT

The research reported is based upon the analysis of educational enrollment among immigrant and native-born adolescents age 15, 16 and 17 from the public use microdata sample (PUMS) files of the 1990 U.S. Population Census (U.S. Bureau of the Census 1992a, 1992b). The selection of the data source, the dependent variable, and the age range of the sample have important advantages and disadvantages.

The major advantage of the census PUMS files is their large size. There are about 5.5 million persons age 15, 16, and 17 in the United States in 1990—about 2 percent of the total U.S. population, and only about 14 percent of persons in this age range are foreign-born, approximately 783,000 persons. Even with this small universe, the .05 PUMS Census file still yields almost 40,000 observations of foreign born adolescents (age 15-17). This sample provides an extraordinary base to identify many of the small country-of-origin populations.

The dependent variable—the percent enrolled of high school age youths—is an indicator of how well a particular national origin (place of birth) group is doing, relative to the native born population. The percent of teens enrolled in high school is a fairly crude measure of immigrant adaptation to American society. In 1990, upwards of 90 percent of the native-born high school age youths were enrolled and more that 85 percent of foreign born youths were also enrolled, so the measurement of high school enrollment is only sensitive to variations at the lowest end of the educational distribution. The results reported here might not be comparable to those based on indicators at the upper end of the educational distribution, say the percent graduating from college. Nonetheless, in much of the theoretical discussion reviewed above, and the segmented assimilation hypothesis in particular, the risk of dropping out of high school is one of the major problems facing the new immigrant communities. Moreover, there is considerable variation in rates of non-enrollment across the country-of-origin groups among foreign-born youth.

There is another data limitation that constrains our focus to the high school age population. After age 18, most young adults leave their parental household to attend college or to set up independent living arrangements. Census data can only provide information on the family background variables for adolescents who still co-reside with their families. For our sample of 15 to 17 year olds, 90 percent of the native born sample and 78 percent of the foreign born sample are reported to be a child (or step child) of the householder (the person in whose name the house/apartment is owned or rented). Some surveys include specific questions on parental socioeconomic characteristics and other family background variables, but such information is only available in the census by matching records of the adolescents with other family members in the same household.

Another major limitation of census data is that direct identification of the second generation is no longer possible because the birthplace of parents question was dropped from the census questionnaire in the 1980 (and 1990). There are some indirect methods, such as locating children who live in the same household with their foreign-born parents (Landale, Oropasa, and Llanes 1998) and use of the race and Hispanic-origin variables (Hirschman 1996), but these measures raise new problems. There are many adolescents who do not live with one or both parents, and thus children of foreign, and especially of mixed, parentage will be underestimated. If missing information on foreign parentage is correlated with specific countries of origin, there may be a bias in estimates of variations in educational enrollment across country of origin groups.

The second generation is a critical test case because they, unlike their parents, have been fully exposed to the American educational system and have been socialized to American culture without a first hand experience of growing up in another society. These advantages—speaking unaccented English and familiarity with the American system—should foster upward mobility relative to their immigrant parents. The segmented assimilation hypothesis, however, predicts that some members of the second generation will be acculturated into the "oppositional subculture" that prevails in some American communities, which rejects educational success as a means of upward mobility.

Our approach here is to use duration of residence in the United States among the first generation to obtain a proxy for the second generation. We divide the sample of 15-17 year olds according to their year of entry into the United States. Those that arrived in 1982 or later were age 7-9 or older on arrival. This group, on average, had began their schooling in their country of origin and some significant part of their childhood socialization there. Those who arrived in the United States prior to 1982, were age 6 to 8 or younger at arrival. This group had, on average, all (or almost all) of their schooling in the United States and may have little memory of living anywhere else. Although far from perfect, this second group—high school age adolescents in 1990 who arrived prior to 1982—is a proxy for the second generation in our test of the segmented assimilation hypothesis

#### THE DIVERSITY OF THE NEW IMMIGRANTS

Country of origin or place of birth is the primary point of reference in the studies of immigrants and the children of immigrants in the United States. Some national origin groups have a clearly defined "home country," a common national language and culture, and recognized ethnic identity in the United States. Close observation reveals, however, that these assumptions do not really fit many immigrant groups, past and present Among the major Southern and Eastern European immigrant groups to the U.S. in the early 20<sup>th</sup> century, their "country" did not exist at their time of immigration. There were also considerable linguistic and cultural variations associated with regions in the place of origin. National identity was frequently created at the destination rather than a cultural transmission from the Old World (Yancey, Ericksen, and Juliani 1976).

With an awareness of these classification problems, Table 1 contains the 33 "place of birth" categories that include most recognizable national-origin or ethnic communities that could be identified with a significant number of observations from the 1990 Census .05 PUMS file. Sample size constraints did lead to some regional groupings and residual categories to arrive at a mutually exclusive and exhaustive classification.

#### TABLE 1 ABOUT HERE

The most remarkable feature of the place of birth classification in Table 1 is the large number of groups with some visible presence in the United States. The places are grouped into 12 Asian populations, 13 from the Americas, 7 from the "Rest of the World," plus a "Born Abroad, Place Not Reported" category. The right hand columns give the number of observations and the percentage distribution for each place, based on the sample of 39,164 foreign born persons, age 15-17, in the 1990 Census .05 PUMS file. The characteristics of the foreign born populations can be contrasted with the sample of 4,693 native born persons in the same age from the .001 PUMS file (see the last row of Table 1).

With the exception of Mexican immigrants (26 percent of the sample) and Vietnamese (6 percent of the sample), most of the listed countries have only 1, 2, or 3 percent of the total foreign born. Many of the larger groups in Table 1 are actually residual categories: Middle East (3%), South America (4%), Rest of Europe (4%) and Unknown (Born Abroad, Place Not Reported). Puerto Rico listed as place of birth, although Puerto Rico is a U.S possession, and all Puerto Ricans are citizens by birth. Their inclusion here is simply because migration from Puerto Rico to the U.S. mainland has many parallels with international migration, and Puerto Rican youth are thought to have many of the same handicaps as new immigrants. In a similar fashion, persons from U.S. possessions in the Caribbean and the Pacific are classified with regional place of birth category (Other West Indies and Oceania/Pacific Islands).

The columns in Table 1 show a set of social and demographic characteristics for each place of birth population. The first two columns present basic measures of demographic composition: the percentage age 17 (of the total 15 to17 age group) and the percent male. The third column is the percentage of each population that has arrived since 1982, a crude measure of the recency of the migration stream. The next three columns the composition by "race" for three categories: white, black, and Asian. The next column shows the percent Hispanic and the final column shows the percentage of foreign-born youth that are the children of American parents born abroad. There is little remarkable in the age and sex composition of the foreign born populations in Table 1. Many of the adolescent foreign-born groups tend to be a little older than the native born population in the same age range, but only slightly so. Similarly the gender composition distribution is very similar to the native born. The only exception is the very masculine composition of the recent Nicaraguan refugee population—perhaps because families were sending their male teenagers to the U. S. during the 1980s in order to avoid military conscription.

The division between "before and after 1982" provides a simple indicator of the timing of the arrival and whether the majority of a particular group arrived as small children or at an older age. For the entire sample of foreign born, year of arrival before or after 1982 divides the sample approximately in half. Some groups came primarily as small children (before 1982), such as Koreans, Laotians, Vietnamese, Canadians, and some European groups. Other national origin populations consist largely of recent arrivals: Chinese from the mainland, Haitians, Dominicans, and Central American refugee populations (Salvadorans, Guatemalans, and Nicaraguans).

The consideration of race, Hispanic origin, and American parentage are closely intertwined. The size of the "Foreign Born of American Parentage" population is unexpectedly large—almost 20 percent of the foreign born population. Several foreign born populations have very large concentrations with American parentage: 65 percent of those born in Japan, 35 percent of Korea, 48 percent of Other East/Southeast Asia, 48 percent of Canada, 50 percent of Great Britain, and 88 percent of Germany. Given this pattern, it seems that the stationing of American service personnel abroad is a major component of this phenomenon. These persons are foreign born only in a technical sense, and are therefore excluded from subsequent analyses (tables) in this article. Persons born in Puerto Rico (and other American possessions) are, however, retained even though they are citizens at birth.

Place of birth does not always provide an accurate reading of race/ethnicity in the United States. For example, 51 percent of those born in Japan and 45 percent of those from Africa

are classified as white. The Middle East is classified as part of Asia, but 96 percent of persons from the Middle East classify themselves as white in the census.

The race/ethnic classification of Latin America is particularly complex. One major sending region, which is represented by Haiti, Jamaica, and Other West Indies (shaded in Table 1), is not Hispanic, but primarily English (Jamaica and West Indies) or French (Haiti) speaking. The immigrants from this region respond to the census question on race that they are black or African American. Immigrants from the rest of Latin America respond that they are of Hispanic origin, but a significant fraction do not select any of the major categories on the race question (responses to the "other" race category are not shown in Table 1). For example, only 41 percent of persons from Mexico, 45 percent from Puerto Rico, and about one-third from El Salvador and Guatemala respond that they are white. A few percent respond that they are black, but the majority write in another category or leave the question blank. As might be expected, the "Rest of the World" groups are very heterogeneous. Interestingly, half the "Place of Birth Not Reported" are classified as of Hispanic Origin and about 15 percent respond that they are Asian.

#### EDUCATIONAL ENROLLMENT BY PLACE OF BIRTH AND GENDER

Table 2 shows the percentage not enrolled in school (the dependent variable) of foreign-born youths, age 15-17, by place of birth, gender, and by year of arrival in the United States." The "foreign born of native parentage" population is excluded from Table 2 and all subsequent analyses.

#### TABLE 2 ABOUT HERE

Non-enrollment among high school age adolescents is a rare occurrence. Only 6 percent of male and 7 percent of female native-born youths are not in school. Although the overwhelming majority of foreign-born adolescents are enrolled in school, there is substantial variation across places of origin. There is, however, very little variation between male and female youths in their school enrollment. Even though there are a few cases with some odd gender differences (that may be due some particular migration

selectivity), most conclusions based on male enrollments would hold for female enrollments.

In general, the levels of non-enrollment among youth born in Asia are very low. In fact, Asian youth are more likely to be in school than are native born youth. There is considerably more variation among youth from Latin America and the Caribbean. The populations with the highest non-enrollment rates are those born in Mexico, Puerto Rico, Cuba, the Dominican Republic, El Salvador, and Guatemala (non-enrollment rates above 10 percent are shaded in Table 2). Recent Mexican immigrants, those who arrived since 1982, have extraordinarily high non-enrollment rates—over 40 percent, but Mexican youth who arrived as very young children have only moderately high rates of school attrition, a bit over 10 percent. Although groups from the Hispanic Caribbean have serious educational enrollment problem, those from the West Indies (Haiti, Jamaica, and other islands) are doing about as well as the native born. Although refugee populations from Central America are typically considered as groups "at risk" of failure, only adolescents from El Salvador and Guatemala have high rates of non-enrollment. Over 90 percent of youth from Nicaragua are enrolled in school.

The segmented assimilation hypothesis would predict that the rate of non-enrollment rises with longer duration of residence for some immigrant groups (especially groups that face greater obstacles with fewer community resources). Mexicans display the reverse of this pattern, as do most immigrants from Central and South America. There is some evidence, however, supporting the segmented assimilation hypothesis; immigrants who came as small children (pre 1982) have higher non-enrollment rates than recent teenage immigrants for Puerto Ricans, Cubans (males only), Dominicans (males only), Haitians, and Other West Indians (males). The segmented assimilation hypothesis would predict that black immigrants would be particularly at risk of "assimilation" into the African American minority population with the implication of higher non-enrollment rates associated with longer duration of residence in the U.S. (more "Americanized"). While this holds for Haitian immigrants and Other West Indian males, the reverse is found for Jamaican immigrants.

Because the census sample consists of a specific age group at one point in time, age at immigration, year of immigration, and duration of residence in the U.S. cannot be separately identified. This means that the patterns revealed by a comparison of the pre-1982 and post-1982 immigrants within country-of-origin categories could be the product of rather different factors. In the prior paragraph, I highlighted the potential impact of longer duration of residence in the United States leading to that greater "Americanization," but this opens the door to two possible trajectories. The classical assimilation perspective suggests that longer residence, especially during childhood, would be positive—leading to a lower rate of "dropping out." More exposure to American society is assumed to lead to greater acculturation, knowledge of how the system works, and enhanced English language facility. The alternative expectation from the segmented assimilation literature is that greater exposure may lead to acculturation to the "oppositional culture" of American minority groups that reject schooling as a means of social mobility.

Another potential explanation for the high rate of non-enrollment among recent teenage immigrants is that they came to the United States to work, not to attend school. Some fraction of the post 1982 immigrants may have already "dropped out" of school prior to immigration. This certainly seems to be a strong possibility for the 1982-90 immigration stream from Mexico.

The final panel in Table 2 presents comparable patterns from countries and regions in the "Rest of the World." For most of these groups, it is much more difficult to have strong theoretical expectations, and the observed patterns do not reveal clear-cut patterns. Even with the exclusion of the "children of American parentage," fluctuations in these numbers may reflect selectivity of migration flows by national origin and gender, e.g. female childcare workers, exchange students, refugee flows, etc. This problem is compound by the broad residual and regional categories, such as Rest of Europe, Africa, and Oceania/Pacific Islands. Consequently, I offer relatively few observations on the populations from the "Rest of the World." The odd patterns displayed here suggest that any effects of the

hypotheses under consideration here are probably swamped by compositional factors produced by selective migration.

#### THE FAMILY AND SOCIOECONOMIC BACKROUND OF IMMIGRANTS

Based on the matched records of the household, the householder, and the householder's spouse for the sample of foreign born youth, age 15 to17 from the .05 PUMS file of the 1990 Census, it is possible to create a variety of indicators of the family structure and socioeconomic resources. The five background variables selected here index dimensions that have been identified as key influences on the enrollment of high school age youth in the United States. These variables fall into three broad categories identified in the research literature: family structure, central city residence, and socioeconomic status.

Youth who live with parents, or better yet with both parents, are expected to have stronger family support to stay in school. Adolescents living in the central cities of large metropolitan areas (relative to those who live in suburbs, small towns, or rural areas) are hypothesized to be disadvantaged because their neighborhoods, schools, and other aspects of their environment that dampen educational aspirations. Finally, children who grow up in families with greater social and economic resources are more likely to be motivated (and encouraged) to continue their schooling.

These three domains are indexed with five variables, which are identified across the columns of Table 3. The first two columns index family structure with measures of whether the youth is a child of the householder (0 = no, 1 = yes), and whether the spouse of the householder is living in the household (0 = not a married couple family household, 1 = married couple household). The householder is simply the person in whose name the house is owned or rented. Although these variables do not directly measure the precise family composition for the sample youths (e.g., in an extended family household, a youth's parent(s) could be present, but not be the householder), they are close proxies. Note that 90 percent of the U.S. born sample are the child (or step-child) of the householder and that 73 percent live in a "married couple family household" where the spouse of the householder is present.

## TABLE 3 ABOUT HERE

In the .05 PUMS file of the1990 Census, the standard central city-suburb-nonmetropolitan variable was not included, and the smallest geographical units were PUMA's (public use microdata areas) which contained a minimum of 100,000 population. Based on an analysis of another census data file (STF3), Stults (1999) was able to assign each PUMA to one of the following categories: 1) 100 percent of the population is central city, 2) less than 100 percent, but greater than 95 percent of the population is central city, 4) 100 percent of the population is suburban, 5) less than 100 percent, but greater than 95 percent of the population is suburban. The PUMA's not classified were considered to be nonmetropolitan areas. Following Stults, we consider only 1's and 2's to be central city PUMA's and type 9's to be non-classifiable. This is a conservative strategy and will underestimate the central city population. Only 14 percent of the U.S. born sample lives in central cities according to this measure, but 39 percent of foreign born youth do.

Two measures of the socioeconomic status of the household are reported: the percentage of householders with some college (13 or more years of schooling) and the percent of households below the official poverty line, adjusted for household size. Although other measures of occupational status and family income could be used, these indicators were selected because of their presumed impact on continuation in and graduation from high school.

On average, foreign born adolescents were about 10 percentage points less likely to be the child of the householder than were native born teenagers. In all but a handful of national-origin groups, the differences with the native born were only a few percentage points—certainly within the range of measurement error. The major exceptions from this pattern were immigrants from Mexico and the Central American populations (Salvadorans, Guatemalans, Nicaraguans, and Other Central Americans). Some Mexican teenagers probably came to the U. S. to find employment with friends or family members, not

necessarily their parents. Many of the Central American adolescent immigrants were refugees from civil wars, and they may not have always come with their parents.

Note that only 66 percent of the Japanese sample and 56 percent of the German teenagers were the child of the householder—the lowest figures in the table. Perhaps there are a substantial number of exchange students from these countries who are living with host families in the United States.

The next indicator, whether the spouse of the householder is present, is another proxy for family structure—namely a married couple household. Overall, there is no difference between the native born and foreign born samples, about <sup>3</sup>/<sub>4</sub> of both groups of high school age youths live in married couple households. This apparent similarity, however, masks a wide variation in family composition among the immigrant populations. Asian immigrant youth are as likely, or more likely to live in married couple households than are the native born. Even the Asian population with the lowest percentage living in a married couple household—the Cambodian population at 67 percent—is reasonably high.

There is considerably more heterogeneity among the "Americas," with the major distinction between the Caribbean region and the balance of Latin America. Only about 50 percent of Spanish speaking Puerto Ricans, French speaking Haitians, and English-speaking Jamaicans and Other West Indian populations are living in married couple households. Other Latin American groups are a bit lower than the overall average for the foreign born, but not very low. About 70 percent of Mexican youth live in a married couple household.

Central city residence is much higher for immigrants at 39 percent compared to only 14 percent of the native born. A few immigrant groups have very low central city concentrations—Taiwanese, Japanese, Canadians, and some European groups, but these are the exceptions. Chinese from mainland China and Hong Kong, the Southeast Asian refugee populations (Cambodians and Laotians), and most Latin American and Caribbean populations are over-represented in central city areas. The Dominican population at 79

percent and the former USSR population at 63 percent were the highest. There is, of course, substantial variation in central city neighborhoods, and not all central city residents are exposed to the dangers and social problems of concentrated poverty and urban decay.

About one-half of native born adolescents live in a household where the householder has some tertiary education compared to one-third of the foreign born. Presumably, a parent (or householder) with post-secondary schooling will try to keep their children in school, at least though the high school years. American teenagers born in Taiwan and India are exceptionally advantaged with more that 70 percent living in a household with an adult (most likely their parent) who has gone to college. Among Mexican immigrant youth, the comparable figure is 8 percent. Refugee populations, both from Southeast Asia (Cambodians and Laotians) and Central American (El Salvador and Guatemala) have much lower family "human capital" as indexed by this measure.

Poverty is measured by whether the household is below the standard "poverty line," which was \$12,674 for a family of four in 1989 (U.S. Bureau of the Census 1992b: B-28). The poverty line indexed to be the minimum household income necessary to purchase food and other essentials, adjusted for household size. The pattern of household poverty across the national origin classification in Table 3 mirrors the distribution of householders with some college education. Latin American and Caribbean populations have, in general, much higher levels of poverty than do Asian populations (except for Cambodians and Laotians). The poverty rates for Mexican, Puerto Rican, and Dominican youth are exceptionally high.

Shading in Table 3 is used to emphasize figures that indicate poorer conditions, lower resources, or adverse circumstances that might weaken the ability of teenagers to complete high school. National-origin populations with at least three adverse dimensions are shaded—Cambodians, Mexicans, Puerto Ricans, Dominicans, Salvadorans, and Guatemalans—to highlight populations that are particularly at risk of failure. In the subsequent multivariate analysis of school enrollment, these background variables are included as covariates to see if the observed inequality in educational enrollment can be

explained by these variations in family structure, inner city residence and family socioeconomic status.

#### MODELS OF EDUCATIONAL ENROLLMENT

The segmented assimilation hypothesis predicts variation in the paths of adaptation among new immigrant communities to American society, depending on the internal resources of the group, the place of settlement, and the reception by the host society. Some of these factors are represented by the background variables in Table 3. In Table 4 (and in subsequent tables), logistic regressions of the odds of non-enrollment to enrollment are estimated in a baseline model (equation) and in three cumulative and sequential models with covariates. The place of birth populations are coded as binary (dummy variables), with the native-born as the contrast (omitted) category. To make the results more interpretable, the exponentiated (anti-logged) coefficients are presented, which can be interpreted as the ratio of the odds of non-enrollment (to enrollment) of each place of birth population to the odds (of non-enrollment to enrollment) of the reference population—the native born.

An odds ratio of 1 indicates equivalence between the specific foreign born population and the native born (the reference group), a value of more than 1 indicates a higher non-enrollment of the specific foreign born population, and a value of less than 1 indicates a lower non-enrollment rate of the specific foreign born population. For example, the non enrollment/enrollment odds of the China (mainland) born adolescents was .82 of the odds of the native born reference population. In other words, more Chinese immigrant youth were enrolled in school than are native born American youth, but the difference was not statistically significant. The coefficients of the "control variables" in Table 4 are expressed in comparable style. The odds of non-enrollment by age are computed relative to the omitted category of 17 year-olds. The other covariates: gender, child of household head, married couple household, central city residence, householder with college education, and poverty are coded as binary (dummy) variables. The odds ratios of the variable (e.g. male to female, child of householder to non-child of householder, etc.).

### TABLE 4 ABOUT HERE

The first model (column) in Table 4 is a baseline equation that includes only place of birth, age, and gender as independent variables. The place of birth coefficients are roughly similar to the descriptive values presented in Table 2, except that age and gender composition is held constant. The next three models add covariates in a sequential (and cumulative) fashion in an effort to "explain" the bases of variation in educational enrollment. The logic is not to "explain away" the impact of place of birth, but rather to "explain why" some groups may be advantaged or disadvantaged in the process of high school enrollment. In Model 2, the two family structure variables are added. Central city residence is added in Model 3, and the two measures of family socioeconomic status are added in the last model. The sequence of these models is somewhat arbitrary, since temporal order cannot be known with certainty.

Family structure is sometimes identified as an element of the cultural framework of a newly arrived group or as an aspect of selective migration. Accordingly, the family composition variables are added first in Model 2. After migration, or even while planning the migration, place of settlement is one of the first questions to be resolved. With this logic in mind, the location of residence is added next in Model 3. Since family structure and geographical location might constrain socioeconomic status of the family, the effects of socioeconomic characteristics are estimated net of the other variables in Model 4.

In the baseline equation, several Asian groups: Hong Kong and Taiwan Chinese (but not mainland Chinese), Japanese, and Vietnamese teenagers are significantly more likely to be enrolled in school than are the native born, while some Latin American groups: Mexicans, Puerto Ricans, Cubans, Dominicans, and Central Americans are significantly less likely to be in school. There is considerable within region variation beyond the first order distinction that Asian immigrants are more likely to be enrolled in high school than are Latin American immigrants.

The odds ratios for most Asian immigrant populations are below 1, indicating that lower non-enrollment (higher enrollment) in high school than the native born, but in most cases the differences are within the range of sampling error. In models 2 through 4, covariates are added to the model in an effort to explore potential causes of the "Asian advantage." As was evident from Table 3, not all the background characteristics of the Asian samples were positive. In general, Asian adolescents had favorable family composition characteristics, but in terms of residence and socioeconomic status, there was wide variation across groups. Nonetheless, Table 4 shows a fairly consistent pattern of Asian odds ratios becoming lower as more variables are controlled (from Model 1 to Model 4). This pattern is counter-intuitive and requires some discussion.

Typically, introducing additional covariates reduces the association (or effect) between an independent variable (place of birth) and the dependent variable (non-enrollment), with a straightforward interpretation that the association (which could be positive or negative) is partially due to the factor represented by the covariate (e.g., living in a central city or not living in a central city). In Table 4, the effects of Asian immigration status are increased with the introduction of control variables, indicating that "suppressor" effects are present. There is an underlying Asian advantage in education enrollment that is not due to any the variables measured here. Indeed, as additional variables are controlled, Asian students are even more likely to be enrolled in school. Given that most 15-17 year olds are enrolled in school, most of the absolute differences are small, typically in the range of two to three percentage points, but the pattern is fairly consistent.

The deficit in educational enrollment for some Latin American groups is partially explained by poorer environments and less family resources. About one-third of the lower educational enrollments of the Mexican born is a product of family composition, but the remaining Mexican educational disadvantage is larger than that of any other group. There are persistent, but smaller educational disadvantages in enrollment for Puerto Ricans, Salvadorans, and Guatemalans, but these are reduced with controls for socioeconomic status and especially for family background. The Cuban and Dominican disadvantages are smaller and are reduced with models including central city residence and socioeconomic status.

The results in Table 4 are also important for what they do not show. Among immigrants from the Afro-Caribbean region, who are predominately black, there is little sign of a problem of low educational enrollments. Haitians do have a modest, non-statistically significant, enrollment deficit, but this is entirely due to background variables, family composition in particular. The observed educational enrollments of immigrants from Jamaica and the West Indies in the baseline equation are close to parity with the native born, and as the covariates are introduced in Models 2 through 4, there seems to be an emerging West Indian advantage, very similar to the Asian pattern.

There are two quite different patterns for immigrants from Central America. Adolescents from El Salvador and Guatemala have very high levels of non-enrollment. About half of their disadvantage is "explained" by the covariates in the model, family composition in particular. On the other hand, the observed enrollment rates for adolescents from Nicaragua, Other Central America, and South America are not significantly different from the native born. And with the introduction of covariates, the odds ratios drop below one. It seems that there are two types of refugee populations—those with problems of staying in school from El Salvador and Guatemala and those that do very well in American schools from Nicaragua.

In spite of the wide variations in the educational enrollments of immigrants from the "Rest of the World," there are very few numbers that are significantly different from the native born. Immigrants from the former USSR experience a modest educational enrollment deficit that is partially masked by the favorable family composition and higher socioeconomic status. Students from Oceania/Pacific Islands appear to be doing very well in terms of educational enrollment. The residual category "Abroad, Place Not Reported," of whom 46% were Hispanic (see Table 2), have a serious educational deficit in enrollment, which is partially due to their unfavorable family and socioeconomic status. The covariates in Table 4 show interesting and sometimes unexpected direct effects on educational enrollment in the various models. Gender differences are small and not significant in any model. Living as the child of a householder is the single most powerful variable in the analysis, but there is some reason to doubt if this variable is a real cause of non-enrollment. Our original hypothesis is that adolescents who have a parent in the household (proxied by the child of householder variable) will obtain more support and encouragement to stay enrolled in high school. But living in a household without a parent might also be a correlate of labor migration of adolescents who did not plan to attend school after migration. In subsequent analysis, we examine this question more closely by comparing recent migrants versus those who came as small children. The proxy for a two parent household (whether the spouse of householder is present) has a significant and positive net impact on enrollment, although not as large as being the child of the householder.

Living in a central city does increase the non-enrollment of adolescents. Since this variable is not limited just to inner city areas with poor educational climates, it is likely that the impact of impoverished neighborhoods could even be greater. Having a householder with some college education is a very powerful predictor of teenagers staying in school. In contrast, however, poverty status, after holding constant all the other variables in the model does not affect enrollment status. The impact of poverty may be captured in the other background variables or perhaps family income is less consequential for this stage of life (completion of high school) than family composition, place of residence, and parental education.

The same set of models are estimated for recent arrivals (1982 to 1990) in Table 5 and for long term immigrants (arrived prior to 1982) in Table 6. In addition to defining duration of residence in the U.S., this classification also captures age at the time of arrival for those who are age 15 to 17 in 1990. The recent arrivals, since 1982, range from age 8 to 17 at the time of arrival, while the earlier wave was age 8 or less at the time they arrived. Although each side spans a number of years, most of the first group had received substantial socialization, including schooling, in the home country, while the bulk of the second group

arrived as small children and began their schooling in American schools. The first group, in addition to having their schooling disrupted with a cross-national move, may still be in the early stages of adaptation to American society. Everyone in the second group is likely to have acquired English fluency from having all of their education in the United States and probably have only a fading, if any, memory of life in their home country.

The analysis in Table 4 combined both groups together. In Table 5, the recent arrivals are expected to show more variation in educational outcomes by place of origin, but perhaps buffered by their social setting. The immigrants who arrived as preschoolers, displayed in Table 6 are more like a second generation population with foreign born parents, but American socialization. The "immigrant optimism hypothesis" would predict relative gains in schooling for this population, while the segmented assimilation hypothesis would predict variations depending on prior characteristics and treatment in the United States.

<u>Recent Immigrants: 1982-1990</u>. Table 5 contains the same four models as Table 4, but is limited to the universe of adolescents who have arrived since 1982. Although some of the specific "place of birth" groups are considerably smaller in Table 5 than in Table 4, none drop below 100, and overall there are more than 20,000 observations of foreign born youth, in addition to more than 4,600 native born.

#### TABLE 5 ABOUT HERE

In general, recently arrived immigrant adolescents are less likely to be enrolled in school than are the overall sample of immigrant adolescents. Most Asian groups still have odds ratios below 1, indicating higher enrollment (or low non-enrollment) than the native born, but only one group (Taiwan) is significantly different from the native born reference category in the baseline Model 1. Among Latin American populations, almost all baseline model coefficients are above 1, and many are statistically significant. The odds ratio for recent Mexican immigrants is 9, which correspondents to a non-enrollment rate of over 40 percent. Several other groups have very high non-enrollment rates, including Salvadorans and Guatemalans.

New arrivals face a number of problems, including adapting to a new school system taught in a language different from that in their home country. Newly arrived teenagers are probably in households with adult family members who are still adjusting to life in the United States. Migrants who arrive as teenagers may also be more likely to live in extended family households or with other relatives who may not include a parent. These factors may be some of the conditions, which contribute to the higher non-enrollment rates in the baseline model in Table 5. Indeed as these background variables are controlled in Models 2 through 5, the effects of foreign birth for most Latin American groups are attenuated by one third or more.

As the covariates are introduced, especially family composition in Model 2, many of the coefficients for Asians groups become significant and show a distinct underlying Asian educational advantage (higher enrollment rates in high school) relative to the native born. This advantage is masked in the baseline model because of family composition (i.e., fewer Asian immigrant adolescents are living in households as the child of the householder). As noted above, the assumption that household and family structure is causally prior to adolescent high school enrollment can be questioned. Our assumption is that teenagers with educational problems are less likely to "drop out" of high school if a parent, preferable both parents, are present in the household and able to offer encouragement and support. If the adolescents are recent international migrants, however, they may have left their parents behind in the country of origin. For example, a 16 or 17 year old could have dropped out of school several years earlier, and then migrated to the United States to seek employment. Their household living arrangements, with co-workers or other kin, is more likely to be a consequence of their migration, and not the primary cause of their non-enrollment in school.

Although these alternative interpretations cannot be distinguished here, both may be important elements. The very sharp declines from the Model 1 to Model 2 (when family composition is controlled) for many Latin American populations, including Other Central Americans and South Americans, suggests that labor migration may be a major reason for the non-enrollment of recent immigrants. It is likely that a significant fraction of the 40 percent of recent Mexican immigrant teenagers not enrolled in American schools had dropped out of school in Mexico prior to migration.

Immigrants Who Arrived as Small Children Prior to 1982. In Table 6, a parallel set of logistic regression models of educational non-enrollment are estimated for foreign born teenagers who arrived in 1981 or before. Most of them were preschoolers when they arrived and their life experiences are probably fairly close to the image of the second generation who receive all their education in the United States and have been socialized into American culture at an impressionable age. The immigrant optimism hypothesis would predict that most adolescents adapt successfully to the American educational climate. In addition to receiving a positive encouragement from immigrant families, these teenagers have had sufficient time in the country to acquire English language fluency and familiarity with the American system. The segmented assimilation hypothesis would predict, however, that some of these groups might not be doing too well, especially if they have been socialized by their peers in inner city schools and neighborhoods to an adolescent culture that rejects education as a means of social mobility.

# TABLE 6 ABOUT HERE

The results in Table 6 provide support for both of these hypotheses. In general, there is much less variance in educational enrollment among immigrants who arrived as children than among recent arrivals (the Chi Square is only 546 for the baseline model in Table 6 compared to a 3,168 in Table 5). Asians continue to do very well, though few coefficients are statistically significant. The educational enrollment of youth from Taiwan is phenomenally high, though no longer significant when their favorable socioeconomic status (especially college enrollment of householder) is held constant. The very high enrollments of Vietnamese and Indian (South Asian) teenagers are statistically significant in every model.

The pattern of Latin American educational enrollments among this sample of long term immigrants is distinctly different from those in Tables 4 and 5. In most cases, there is no longer a Latin American disadvantage. Salvadorans and Guatemalans with enough time to adjust to American society, have educational enrollments comparable to natives. Indeed with controls for family composition, location, and socioeconomic status, they are more likely to be enrolled in school than are native born teenagers (though the difference is not significant). An alternative explanation to this interpretation (that duration of residence is sufficient to catch up) is that the composition of immigrants from El Salvador and Guatemala changed in the 1980s. These alternative hypotheses can only be examined with data from multiple time points that will allow for independent estimates of duration of residence in the United States and period of arrival.

The Mexican disadvantage persists in Table 6, but the gap with the native born is fairly modest and is substantially reduced with controls for social background, especially the education of the householder. In addition, there are several Caribbean groups that, in spite of long term residence in the United States, experience an enrollment deficit. These include Puerto Ricans, Cubans, Dominicans, and Haitians. Some of the educational deficits that are observed in the baseline model are attenuated or become insignificant with controls, but the relative patterns persist.

These Caribbean groups fit the prediction of "at risk" teenagers in the segmented assimilation model. Puerto Ricans and Dominicans are concentrated in New York City, and Cubans are disproportionately in Miami. Many in these populations are likely to be absorbed, socially and culturally, into the African American population and to develop a minority identity, rather than an immigrant identity. This distinction is important in shaping attitudes and outlook toward educational opportunities. In her analysis of student identities in a California High School, Matute-Bianchi (1986) observed a major distinction between students who identified as Mexican-oriented or Mexican-American who tended to be much more successful in school than those who adopted a Chicano or Cholo identity and rejected conformity to the academic norms of the school. The development of an alternative outlook was also the dominant cultural pattern in the predominately black high school studied by Fordham (1996).

Similar problems of higher than average school attrition are evident among long-term German immigrants and those from the "Rest of Europe." But small samples and insufficient information about these groups preclude a substantive interpretation of these findings.

The impact of the covariates in Table 6 is similar to the patterns evident in the two prior tables. School attrition is strongly associated with age for this slice of years, but not at all with gender. The single most important predictor of continuing in high school is family composition, especially being the child of the householder. For this population, labor migration could not be the determinant of household composition, since the immigrants arrived as small children. The most likely explanation is that parental support/encouragement in the household is an important source of motivation keeping teenagers enrolled in school. Central city residence adds to the risk of dropping out of school, and having a householder (parent) with some (or more) college education influences adolescents to remain in high school.

#### A CLOSER LOOK AT THE ROLE OF RACE AMONG "AT RISK" STUDENTS

For most students, foreign born or native born, staying in high school is the norm, and the overwhelming majority of adolescents in the United States complete high school. Among the foreign born, dropping out of high school is still a problem for a small number of national origin groups: Mexicans, Puerto Ricans, Cubans, Dominicans, and for Salvadorans/Guatemalans (this last group only has a significant number not enrolled for recent immigrants). The findings that these Latin American and Caribbean populations are at higher risk of dropping out of high school are consistent with the "segmented assimilation hypothesis." Portes and Zhou (1993) note that inner city residence, poorer socioeconomic status, and minority identities could contribute to downward mobility among some new immigrant groups.

One potentially important factor in the segmented assimilation interpretation is race. Immigrants who are visibly different, especially those who are likely to be seen as black, may experience greater discrimination, lower expectations, and less encouragement from teachers and others who shape educational ambitions and progress. To investigate the role of race in the process, Table 7 contains a tabulation of the percentage of 15 to17 year olds not enrolled in school in 1990 for several "at risk" populations by period of entry into the United States, and by race (white or as black/other). Even with the large .05 PUMS sample, there are small N's in some cells. Values for cells with less than 25 observations are suppressed (the number of observations is reported in the middle panel of Table 7). For reference, the social background variables for each population, by "race" are presented in the lower panel of Table 7, but these figures are for the entire population, irrespective of duration of residence.

In addition to the five "at risk" populations identified in the prior analysis, an additional immigrant group from Haiti, Jamaica, and the West Indies is included in Table 7. West Indians, who are almost exclusively phenotypically black, should encounter many of the same conditions which lead to minority group identification in inner city environments. Year of entry is broken out into a larger number of intervals to see if there is evidence of either "initial adaptation" or longer-term segmented assimilation. The census race variable is based on whatever the household respondent writes when filling out the questionnaire. For many Hispanics in the United States, the race question is confusing because Hispanic origin is not listed as one of the possible categories (Rodriguez 1992). Many Hispanics do not answer the race question or mark the "other race" box. For this reason, the race categories are collapsed to a simple contrast between "black/other race" and "white" in Table 7.

#### TABLE 7 ABOUT HERE

For Mexicans, there is a very clear and simple story of increasing enrollment rates with longer duration of residence in the United States. Almost half of teenage immigrants arriving from Mexico in the prior three years were not enrolled in 1990. This number

decreases steadily with longer residence in the country. For those with the longest duration of residence—those who arrived as preschoolers, the non-enrollment rate is about 12%. Although 12 percent is considerable higher that the 7 percent of the native born, it is a fairly modest differential in light of the background and circumstances of the immigrant Mexican American population. Checking "white" or "other" on the race variable is not associated with either school enrollment or social background among the Mexican American population.

Race does matter, however, for the Puerto Rican population. Black/other Puerto Rican youth, relative to white Puerto Rican youth, are considerably more likely to live in poverty, to not have a college educated householder, to live in central cities, and not to live in a married couple household. For each duration of residence category, Black/other Puerto Ricans are about 4 to 5 percentage points more likely to be not enrolled in school than are white Puerto Ricans. There is not a linear relationship between duration of residence and school enrollments among Puerto Ricans. There is evidence of both segmented assimilation (those with most exposure to American society) having higher drop-out rates, and also some evidence for the liability of a recent move to the United States.

More than 4/5 of the Cuban population is white, and the sample of black Cuban teenagers is really too small to justify strong inferences. It seems, however, that Black Cubans do not have a problem of school enrollment, and their social backgrounds are comparable to white Cubans except for family composition. Educational enrollment for white Cubans is comparable to that of Puerto Ricans, and there is not a clear association with duration of residence. Cubans who arrived as pre-school age children do not have a lower drop out rate than recent arrivals.

The overwhelming majority of Dominicans—upwards of 80 percent—respond with "other" or "black" to the census race question, but it is hard to see any differences between white Dominicans and black/other Dominicans in terms of educational enrollment or socioeconomic background. Similar to Puerto Ricans, Dominican immigrants have higher

enrollment deficits, both among new arrivals and among those who arrived in the United States as very young children.

Teenage immigrants from the Caribbean countries of Haiti, Jamaica, and the West Indies are added here as another potential "at risk" population. Afro-Caribbeans are considerably less likely to live in married couple households, and other social background characteristics are less favorable than those of the native born population. Afro-Caribbeans, however, have relatively low levels of enrollment attrition for all duration of residence categories.

The situation of immigrants from El Salvador and Guatemala is very similar to that of Mexicans. There is substantial diversity in response to the race question, but this distinction (white vs. black/other) is not related to either the background variables or to educational enrollment. Recent arrivals from these two countries are especially handicapped in terms of continuing their schooling, perhaps because their schooling was interrupted by flight from the civil wars in Central America. There is a monotonic decline in non enrollment with duration of residence, and Salvadorans/Guatemalans who arrived in the United States as children are as likely to be enrolled in school as are native-born Americans.

To push this analysis of "at risk" populations one step further, Table 8 presents logistic regression models of educational enrollment for seven immigrant groups for three periods of duration of residence (pre 1982, 1982-86, and 1987-90). Because race made a difference for Puerto Ricans, white Puerto Ricans are identified separately from black/other Puerto Ricans. The other groups are Mexicans, Cubans, Dominicans, Afro-Caribbeans, and Salvadoran/Guatemalans. Only two models are presented here: a baseline model with controls for demographic composition (age and gender), and a full model with covariates for family structure, central city residence, and socioeconomic status of the teenager's family.

#### TABLE 8 ABOUT HERE

Mexican adolescents who arrived within the preceding three years face a huge enrollment problem – their odds ratio (relative to the native born) is twice that of the next most disadvantaged population, recent arrivals from El Salvador and Guatemala. The odds ratios of Mexicans, Salvadorans and Guatemalans are reduced by 50% from the baseline model to the full model. Part of the reason for the high levels of non-enrollment among these groups is family structure and lower socioeconomic resources—which could simply be a product of recent migration.

Longer residence in the United States reduces the enrollment deficit for Mexicans, Salvadorans and Guatemalans. In fact, there is no enrollment deficit for Central American immigrants who came as young children. Mexican immigrants who came as young children are still more likely to drop out of school, but the gap is relatively modest and is not very different from the other at risk populations.

Puerto Ricans, Cubans, and Dominicans have an educational enrollment problem, but it works in a somewhat different fashion. Puerto Rican teenagers experience higher levels of non-enrollment, regardless of their duration in the United States (those born in Puerto Rico are not immigrants, but they appear to answer the census question on "When did this person come the United States to stay" with the time of their move to the U.S. mainland). Black/other Puerto Rican teenagers have higher levels of non-enrollment than do white Puerto Ricans, but a significant share of this "racial" differential is due to the measured covariates (family composition, central city residence, and socioeconomic background). In other words, black/other Puerto Rican teenagers are more likely to drop out of high school because their circumstances and resources are worse than white Puerto Ricans, and race per se plays only a modest role.

Recent Cuban and Dominican immigrants are also less likely to be enrolled in high school than are the native born. Indeed, the levels and patterns are very similar to Puerto Ricans. There is also a hint that long-term Cuban and Dominican teenage immigrants, those who arrived as children, also face an educational enrollment deficit, though the levels do not approach statistical significance.

At first glance, it might seem that the problem of high school attrition among immigrants is confined to those from the Caribbean region and that race plays a major role in the process. This claim is belied, however, by the experience of Afro Caribbeans from Haiti, Jamaica, and the West Indies, whose educational enrollment is equal or better than that of the native born (long-term Haitian immigrants do not fit this characterization exactly, see Table 6). Even among the disadvantaged groups, race seems to be a secondary factor. White Puerto Ricans do only slightly better than black/other Puerto Ricans. And Cubans, who are predominately white look very much like Dominicans, who are predominately black/other.

#### CONCLUSIONS

There are a growing number of new immigrant populations in the U.S. that are disadvantaged on many of the standard measures of family socioeconomic status and social resources. There are also some foreign born adolescents (and probably second-generation national origin groups) that are falling behind educationally, but one should not read the former into the latter. Indeed, most immigrant children are doing fairly well. With 1990 census data, I have examined patterns of school enrollment for 15 to 17 year old foreign-born youth across 33 "places of birth," and the overwhelming majority of high school age immigrant youth are as likely to be enrolled in school as their native born peers. There are several immigrant populations that experience above average levels of school attrition, but they exhibit complex patterns that crosscut place of origin, age at arrival, and the familial and socioeconomic context of settlement.

The most serious problem of educational non-enrollment is among Mexican teenagers, especially those who migrate to the United States after having started to school in Mexico. The educational situation of Mexican American adolescents is significant because they comprise over a quarter of all immigrants, and the differential is so wide. Almost half of Mexican born 15 to 17 year olds, who arrived in the United States between 1987 and 1990 are not enrolled in school, and almost one third of those who came in the mid 1980s are not

in school. This compares to about 7 percent of native born youth at comparable ages that are not in school. Given the increasingly tight link between education and wages in the United States, there are likely to be long term implications of the educational deficit for Mexican adolescent immigrants.

For Mexican immigrants who arrived in the United States at a younger age, perhaps prior to entry into formal schooling, there is only a modest problem of attrition during the high school years—a few percentage points above the level of the native born population. The Mexican pattern (if not the actual levels) is shared by several other immigrant populations, most notably those from Central (especially El Salvador and Guatemala) and South American and from the former Soviet Union. For these populations, recent immigrants who began their schooling in their home countries have above average non-enrollment rates after migrating to the United States. Immigrants from these same countries who arrived at a younger age (prior to the start of schooling), however, are not more likely than native born Americans to drop out of high school. This pattern is consistent with an interpretation of rapid assimilation to the United States, at least as indexed by educational enrollment. Longer duration in the United States, particularly in the critical years of childhood, leads to socialization to American society and acquisition of English language fluency and other skills that enhance social mobility.

There are two additional patterns of enrollment among immigrant youth that require somewhat different interpretations. For most immigrant populations there is no sign of any newcomer disadvantage in terms of high school enrollment. This pattern is pervasive among Asian immigrants. In many cases, Asian immigrant populations, regardless of duration of residence in the United States, are more likely to be enrolled in high school than are native-born Americans. In most cases, the differences are small in absolute terms and are not statistically significant (although they are significant for a few populations). The evidence of an "Asian advantage" in enrollment is reinforced with the finding that as the effects of central city residence and lower socioeconomic status of families are held constant, the odds of Asian American youths being enrolled in high school widens relative to native born teenagers. This finding of the relative educational success among many

immigrant groups is consistent with the immigrant optimism hypothesis. Most immigrants are determined to be successful in their country of destination, and their sense of purpose and optimism is directed at children in the household.

The final pattern emerging from this study is one of below-average high school enrollment among some immigrant populations that is not reduced with longer duration in the country. This pattern is evident only for immigrants from the Hispanic Caribbean region: Puerto Rico, Cuba, and the Dominican Republic. This finding is consistent with the downward mobility scenario predicted as one possible outcome in the segmented assimilation hypothesis. This pattern is mostly likely among groups concentrated in central cities and attending pubic schools with a demoralized educational climate. In this setting, longer duration of residence in the Untied States may lead to greater acculturation to American society, but not necessarily to the middle class ideal of high educational aspirations.

The role of race is a critical element in the segmented assimilation interpretation. African Americans have long encountered discrimination and prejudice that have been barriers to socioeconomic mobility. The transference of white prejudicial attitudes towards blacks to immigrants of color is considered to be one of the additional problems that may limit the educational and socioeconomic aspirations of the new immigrants. Although it is possible that discrimination can serve as a spur for renewed determination to succeed, this requires supportive family and community institutions to counter the negative experiences from the broader society. Depending on their identification with minority groups in the United States, many new immigrants may simply feel that their efforts will be not be rewarded in American schools and the labor market.

Empirical support on the significance of race is mixed. The Hispanic Caribbean groups for whom longer duration in the United States does not lead to higher levels of enrollment could very well be considered minorities in the American context. But Afro-Caribbeans—the group most likely to be considered African Americans in the United States—however, do not have an educational enrollment deficit. Moreover, color (as measured by the census race variable) was not associated with lower educational

enrollment among the "at risk" immigrant populations except for Puerto Ricans. Segmented assimilation theory does not predict that phenotype will inevitably lead to lower levels of educational success, only that it might add to the pressures faced by immigrant groups in difficult circumstances. Perhaps some segments of the Afro-Caribbean communities are able to insulate their children from oppositional cultural influences in ways that are not possible for Hispanic Caribbean populations.

Finally, there is strong evidence that familial and socioeconomic background influences are important determinants of educational enrollment among immigrant teenagers. In addition to mediating much of the observed lower enrollment rates, living in a household with a parent (proxied by "child of householder"), preferably one with higher education, has a very strong direct effect on enrollment. There may well be means whereby communities and schools can provide supports to compensate for immigrant youths that lack the familial support they need to succeed.

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