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THE EDUCATIONAL ENROLLMENT OF IMMIGRANT YOUTH: A TEST OF THE SEGMENTED-ASSIMILATION HYPOTHESIS*

CHARLES HIRSCHMAN

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

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, based largely 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 will be absorbed into the social and political institutions of American society (Alba and Nee 1999; Smith and Edmonston 1997: chap. 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 mo-

bility, residential integration, and intermarriage over the course of the twentieth century (Alba 1990; Lieberman 1980).

This expectation of eventual progress, however, has been challenged by more pessimistic arguments of "second-generation decline" and "segmented assimilation" (Gans 1992; Massey 1995; Portes and Zhou 1993). The argument is that American society has changed in fundamental ways that make it less receptive to new immigrants than in earlier times. Hostility and discrimination against immigrants have always existed, but these forces were moderated by the American economy's need for immigrant workers. 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 second generation's educational and economic mobility.

The pessimistic interpretation assumes that the increasing 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 unskilled immigrants with fewer opportunities to secure an economic foothold to sponsor their children's upward mobility (Zhou 1997). Recent immigrant children not only have weaker family economic resources but also are thought to be enrolled predominantly in inner-city public schools, where the educational climate is often demoralized. In this situation, immigrant children's assimilation to the immediate American environment might well lead to a path of downward socioeconomic mobility.

We cannot reach firm conclusions on the socioeconomic mobility of the late-twentieth-century wave of immigration to the United States: most of the immigrants have been in the country for a relatively short period, and the majority 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 picture will not be evident for several decades.

Given the limited time horizon at present, I test the segmented-assimilation hypothesis with a focus on youthful immigrants' educational experiences: namely the enrollment of foreign-born youths, age 15–17, in 1990. In an earlier study, I concluded that there was little evidence to support the segmented-assimilation hypothesis in view of the generally positive association between duration of residence in

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the United States and educational enrollment among immigrant adolescents and young adults in 1990 (Hirschman 1996). In this article I revise my prior conclusion with a more in-depth analysis based on data from the 1990 Census Public Use Microdata Sample (PUMS) files. Signs of persistently higher rates of educational nonenrollment are evident in Puerto Rican and other Hispanic Caribbean immigrant populations, which are not attenuated by longer residence in the United States.

THEORETICAL PERSPECTIVES

One of the most influential theoretical perspectives 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. In Park and Burgess's memorable definition, assimilation represents the "sharing of 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 persisting differences can be cited as evidence of the theory's failure (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 lead immediately (or inevitably) to change in others. 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 are partially under the control of the immigrant population. Other aspects, such as intermarriage and entry into primary group associations with members of the host society, depend on the nature of the reception and/or discrimination encountered by the immigrant population.

These complexities reveal the fundamental problems of assimilation theory, namely the lack of a clear specification showing how the various dimensions are related to one another and 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 the complex and numerous societal patterns and institutions that shape the reception of immigrants. 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 interethnic violence may be critical in shaping processes of accommodation, adaptation, 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 to

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; Lieberman and Waters 1988; Neidert and Farley 1985). In a recent review essay, Alba and Nee (1999) concluded 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 one-fifth of the total U.S. population—more than 50 million people—were first- or second-generation Americans (Farley 1999). This new wave of immigrants, the largest influx since the early years of the twentieth century, once again raises questions about the absorptive capacity of American society.

Much of the research on the new immigrants has focused on their educational progress. Accounts and interpretations of their progress in American schools differ greatly, however. The amazing educational success of recent Asian immigrant children has been noted widely; typically it is explained as a product of the cohesiveness of Asian families and achievement-oriented cultural values (Caplan, Choy, and Whitmore 1991; Fejgin 1995; Schneider and Lee 1990). Sue and Okazaki (1990), however, suggest that the Asian immigrants' emphasis on their children's education, especially in mathematics and science, may reflect a belief that Asians experience discrimination in fields where merit is assessed subjectively. Observers disagree even more on the reasons for the educational problems experienced by Hispanics, especially Mexican Americans (Fernandez and Paulsen 1989; Matute-Bianchi 1986). The answers to basic empirical questions, such as whether there has been an educational advance from the first to the second generation of Mexican Americans, seem to vary depending on the data source and the measure of education used (Rong and Grant 1992; Wojtkiewicz and Donato 1995; Zsembik and Llanes 1996).

In a recent study, Landale, Oropesa, and Llanes (1998) identified forces that work in different directions across three generations of Mexican Americans. A newcomer's disadvantage in educational enrollment is 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 also evident among immigrants who arrived at a young age) relative to the third or higher generations. This finding of a modest advantage for the second generation was labeled by Kao and Tienda (1995) "the immigrant optimism hypothesis," with the interpretation that immigrants' attitudes favoring upward mobility are passed along to their children but wash out by the third generation (also see Boyd and Grieco 1998). Kao and Tienda find the strongest support for immigrant optimism among Asians, but observe some support among Hispanics regarding aspirations for college (1995:11).

The finding of second-generation immigrant success in schooling is not entirely new. In 1910 foreign-born children's educational enrollment lagged behind that of native white children, but the enrollments of most second-generation national-origin groups (children of immigrants) 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 their parents' social class, but when these factors are controlled (or if the second generation is observed) the gaps in educational enrollment between immigrant children and their native-born peers are eliminated or substantially moderated.

The segmented-assimilation hypothesis of Portes and Zhou (1993) is a more complex theoretical account explaining 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. Segmented assimilation implies a diversity of outcomes within and between contemporary immigrant streams. According to this theory, some immigrant groups that possess high levels of human capital and that receive a favorable reception may be launched quickly 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 their children's education and upward mobility. Indeed, the second generation may be exposed to the adolescent culture of inner-city schools and communities, which discourages education and aspirations for social mobility (Gibson and Ogbu 1991; Suarez-Orozco and Suarez-Orozco 1995). A third path is one of limited assimilation, in which immigrant parents seek to sponsor their children's educational success but limit their acculturation into American youth society by reinforcing traditional cultural values.

The segmented-assimilation hypothesis provides a lens for understanding the discrepancy in research findings on the educational enrollment of recent immigrants and the children of immigrants in the United States. Rather than expecting a uniform process of successful adaptation with greater exposure to (longer residence in) American society, the segmented-assimilation hypothesis predicts that adaptation is contingent on geographical location, social class of the family of origin, "race," and place of birth. The segmented-assimilation interpretation is supported by case studies of particular immigrant/ethnic populations that have been able to utilize community resources to pursue a strategy of encouraging their children's socioeconomic mobility, but supporting only selective acculturation to American society. In their study of the Vietnamese community in New Orleans, Zhou and Bankston (1998) reported that children who were able to retain their mother tongue and traditional values were more successful in school. This outcome is consistent with research finding 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). In another study, Waters

(1999) found that Caribbean immigrants often can pass along to their children an immigrant or ethnic identity that retards acculturation into the African American community.

The segmented-assimilation and immigrant optimism hypotheses make opposite predictions for immigrants who came as children. Segmented assimilation predicts that longer residence in the country will be disadvantageous, at least for some immigrant groups, because of the greater likelihood of acculturation to minority peers in inner-city environments and 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 their parents' positive attitudes about American society and determination for upward mobility.

DATA AND MEASUREMENT

The research reported here is based on 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 were about 5.5 million persons age 15, 16, and 17 in the United States in 1990—about 2% of the total U.S. population. About 14% of persons in this age range (15–17) are foreign-born, approximately 783,000 persons. Even with this small universe, the 5% PUMS Census file yields almost 40,000 observations of foreign-born adolescents (age 15–17). This sample provides an extraordinary base for identifying many of the small country-of-origin populations.

The dependent variable—the percentage of high-school-age youths who are enrolled in school—is an indicator of how well a particular national-origin (place-of-birth) group is doing, relative to the native-born population. The percentage of teens enrolled in high school is a fairly crude measure of immigrants' adaptation to American society. In 1990, more than 90% of native-born high-school-age youths were enrolled, as were more than 85% of foreign-born youths; thus the measurement of high school enrollment is sensitive only to variations at the low 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 percentage graduating from college. Nonetheless, in much of the theoretical discussion reviewed above, and particularly in the segmented-assimilation hypothesis, the risk of dropping out of high school is one of the major problems facing the new immigrant communities. Rates of nonenrollment vary widely by place of birth: some national-origin groups do much better than the native-born and others far worse.

Another data limitation also constrains my focus to the high-school-age population. After age 18, most young adults leave the parental household to attend college or to

live independently. Census data can provide information on the family background variables only for adolescents who still coreside with their families. For my sample of 15- to 17-year-olds, 90% of the native-born sample and 78% of the foreign-born sample are reported to be children or stepchildren of the householder (the person in whose name the house or apartment is owned or rented). Some surveys include specific questions on parental socioeconomic characteristics and other family background variables, but such information is available in the census only by matching the adolescents' records with those of 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 question on parents' birthplace was dropped from the questionnaire in the 1980 and 1990 U.S. Censuses. The second generation can be identified by other, indirect methods such as locating children who live in the same household as their foreign-born parents (Landale et al. 1998) and use of the race and Hispanic-origin variables (Hirschman 1996), but these alternative measures are imperfect. Many adolescents do not live with one or both parents; 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, the result may be a bias in estimates of variations in educational enrollment across country-of-origin groups.

The second generation is a critical test case for theories of assimilation (conventional and segmented) because the children of immigrants, unlike their parents, have been fully exposed to the American educational system and have been socialized to American culture without a firsthand experience of growing up in another society. These advantages—speaking unaccented English and familiarity with the American system—should foster upward mobility relative to the 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.

My approach here is to use duration of residence in the United States among the first generation to obtain a proxy for the second generation. I divide the sample of 15- to 17-year-olds according to their year of entry into the United States. Those who arrived in 1982 or later were age 7 to 9 or older on arrival. This group, on average, had begun their schooling in their country of origin and had experienced some significant part of their childhood socialization there. Those who arrived in the United States before 1982 were age 6 to 8 or younger at arrival. Members of this group, on average, received all (or almost all) of their schooling in the United States and may have little memory of living anywhere else. Although far from a perfect proxy, this second group—adolescents of high school age in 1990 who arrived before 1982—provides a reasonable approximation for the second generation in my 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 immigrants' children 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, however, reveals that these assumptions do not really fit many immigrant groups, past or present. For the major southern and eastern European immigrant groups to the United States in the early twentieth century, their “country” did not exist at time of their immigration. In addition, considerable linguistic and cultural variations were associated with regions in the place of origin. National identity frequently was not just a cultural transmission from the Old World but often was created at the destination (Yancey, Ericksen, and Juliani 1976).

With an awareness of these classification problems, Table 1 contains 33 “place-of-birth” categories; these include most of the recognizable national-origin or ethnic communities that could be identified with a significant number of observations from the 1990 Census 5% PUMS file. Because of sample size constraints, I created some regional groupings and residual categories to arrive at an exhaustive, mutually exclusive classification.

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, and seven from the “rest of the world,” plus a “born abroad, place not reported” category. The right-hand columns show 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 5% 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 group from the .1% PUMS file (see the last row of Table 1).

With the exception of Mexican immigrants (26% of the sample) and the Vietnamese (6% of the sample), only 1, 2, or 3% of the total are foreign-born for most of the listed countries. Many of the larger groups listed 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 is listed as a place of birth in this table of the foreign-born, although all Puerto Ricans are U.S. citizens by birth. They are included here simply because migration from Puerto Rico to the U.S. mainland has many parallels with international migration, and because Puerto Rican youths are thought to share some of the handicaps of new immigrants. Similarly, persons from U.S. possessions in the Caribbean and the Pacific are classified with their appropriate 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 demo-

TABLE 1. FOREIGN- AND NATIVE-BORN YOUTHS, AGE 15–17, BY PLACE OF BIRTH AND SELECTED SOCIODEMOGRAPHIC CHARACTERISTICS: UNITED STATES 1990

| Place of Birth | % of Each Place-of-Birth Population | | | | | | | | PUMS Sample | |
|-----------------------------|-------------------------------------|---------------------|-------------------------|--------------------|--------------------|--------------------|-----------------------|-------------------------|-------------|---------|
| | Age 17 ^a | Female ^b | Since 1982 ^c | White ^d | Black ^d | Asian ^d | Hispanic ^e | Amer. Par. ^f | N | % of FB |
| Asia | | | | | | | | | | |
| China (Mainland) | 35 | 50 | 74 | 1 | 0 | 99 | 0 | 3 | 560 | 1 |
| Hong Kong/Macao | 39 | 49 | 62 | 5 | 0 | 95 | 0 | 6 | 310 | 1 |
| Taiwan | 33 | 47 | 59 | 8 | 1 | 91 | 0 | 14 | 571 | 1 |
| Japan | 38 | 51 | 33 | 51 | 4 | 45 | 2 | 65 | 670 | 2 |
| Korea | 34 | 54 | 34 | 6 | 1 | 92 | 0 | 35 | 1,714 | 4 |
| Cambodia | 35 | 50 | 56 | 0 | 0 | 99 | 0 | 2 | 480 | 1 |
| Laos | 33 | 47 | 36 | 1 | 0 | 99 | 0 | 1 | 856 | 2 |
| Vietnam | 36 | 46 | 39 | 2 | 0 | 98 | 0 | 8 | 2,354 | 6 |
| Philippines | 35 | 50 | 50 | 10 | 1 | 89 | 0 | 21 | 1,688 | 4 |
| Other east/southeast Asia | 39 | 52 | 34 | 25 | 5 | 68 | 3 | 48 | 380 | 1 |
| India, other south Asia | 35 | 50 | 51 | 13 | 0 | 85 | 1 | 5 | 965 | 2 |
| Middle East | 34 | 45 | 42 | 96 | 1 | 2 | 2 | 19 | 1,026 | 3 |
| Americas | | | | | | | | | | |
| Canada | 32 | 50 | 29 | 84 | 4 | 8 | 2 | 48 | 849 | 2 |
| Mexico | 39 | 47 | 49 | 41 | 0 | 0 | 98 | 7 | 10,328 | 26 |
| Puerto Rico | 36 | 49 | 47 | 45 | 4 | 0 | 94 | — ^g | 1,731 | 4 |
| Cuba | 37 | 49 | 35 | 81 | 2 | 1 | 97 | 4 | 574 | 1 |
| Dominican Republic | 35 | 51 | 72 | 21 | 25 | 1 | 98 | 4 | 591 | 2 |
| Haiti | 36 | 54 | 69 | 2 | 98 | 0 | 8 | 7 | 328 | 1 |
| Jamaica | 35 | 48 | 60 | 2 | 94 | 3 | 2 | 8 | 598 | 2 |
| Other West Indies/Caribbean | 36 | 53 | 56 | 14 | 76 | 4 | 9 | 9 | 566 | 1 |
| El Salvador | 37 | 45 | 70 | 35 | 1 | 1 | 98 | 4 | 1,185 | 3 |
| Guatemala | 34 | 45 | 63 | 36 | 2 | 0 | 97 | 7 | 483 | 1 |
| Nicaragua | 32 | 38 | 80 | 58 | 2 | 1 | 100 | 3 | 506 | 1 |
| Other Central America | 37 | 49 | 52 | 50 | 18 | 2 | 70 | 32 | 572 | 1 |
| South America | 36 | 49 | 55 | 54 | 12 | 6 | 71 | 16 | 1,617 | 4 |
| Rest of World | | | | | | | | | | |
| Great Britain | 35 | 51 | 30 | 82 | 10 | 7 | 2 | 50 | 822 | 2 |
| Germany | 38 | 48 | 14 | 88 | 8 | 1 | 0 | 88 | 1,878 | 5 |
| Spain/Portugal/Azores | 41 | 53 | 26 | 92 | 2 | 1 | 34 | 32 | 543 | 1 |
| Former USSR | 34 | 48 | 54 | 100 | 0 | 0 | 0 | 3 | 439 | 1 |
| Rest of Europe | 38 | 50 | 45 | 97 | 2 | 1 | 1 | 31 | 1,411 | 4 |
| Africa | 34 | 49 | 49 | 45 | 40 | 8 | 1 | 22 | 532 | 1 |
| Oceania/Pacific Islands | 36 | 50 | 31 | 47 | 2 | 16 | 3 | 19 | 522 | 1 |
| Abroad, Place Not Reported | 38 | 48 | 51 | 42 | 15 | 15 | 51 | 30 | 1,515 | 4 |
| Foreign-Born | 37 | 49 | 47 | 41 | 7 | 26 | 46 | 19 | 39,164 | 100 |
| U.S.-Born (Excl. Poss.) | 33 | 48 | — | 79 | 14 | 1 | 9 | — ^g | 4,693 | |

Source: The foreign-born sample is taken from the 5% 1990 Census PUMS; the native-born sample is taken from the .1% 1990 Census PUMS.

^a“Age 17” represents the percentage age 17.

^b“Female” represents the percentage female.

^c“Since 1982” represents the percentage who entered the United States from 1982 to 1990.

^dWhite, black, and Asian are three of the 1990 census “race” categories.

^e“Hispanic” includes all persons of Spanish/Hispanic origin.

^fAmerican parentage includes persons born abroad of American parent(s).

^gPersons born in the U.S. and Puerto Rico are citizens by birth.

graphic composition: the percentage age 17 (of the total 15-to-17 age group) and the percentage 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 show the composition by "race" for three categories: white, black, and Asian. The following column reports the percentage Hispanic; the final column contains the percentage of foreign-born youths who are children of American parents born abroad.

Little is 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 older than the native-born population in the same age range, but only slightly so. Similarly, the gender composition distribution strongly resembles that of the native-born. The only exception is the very masculine composition of the recent Nicaraguan refugee population; perhaps this occurred because families were sending their male teenagers to the United States during the 1980s in order to avoid military conscription.

The division between "before 1982" and "after 1982" provides a simple indicator of the timing of the arrival and shows whether the majority of a particular group arrived as small children or at an older age. For the entire sample of foreign-born persons, 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 considerations 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% of the age 15–17 foreign-born population.¹ Several foreign-born populations have very large concentrations with American parentage: 65% of those born in Japan, 35% in Korea, 48% in other east/southeast Asia, 48% in Canada, 50% in Great Britain, and 88% in Germany. The stationing of American military personnel abroad seems to be a likely explanation of this pattern. Children born abroad of American parentage are foreign-born only in a technical sense, and therefore are excluded from subsequent analyses (and tables) in this article. Persons born in Puerto Rico (and other American possessions) are retained, however, 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% of those born in Japan and 45% of those from Africa are classified as white. The Middle East is classified as part of Asia, but 96% of persons from the Middle East classify themselves as white in the census (or are so classified by the household respondent).

1. In published Census Bureau tabulations, the foreign-born category excludes persons with an American citizen parent, but these cases are classified by their foreign place of birth in PUMS files.

The race/ethnic classification of Latin American immigrants is particularly complex. One major sending region, represented by Haiti, Jamaica, and other West Indies, is not Hispanic but primarily English-speaking (Jamaica and West Indies) or French-speaking (Haiti). Immigrants from the West Indies generally respond to the census question on race with a black or African American identity. Most 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% of persons from Mexico, 45% 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 of the "place of birth not reported" are classified as of Hispanic origin, and about 15% respond that they are Asian.

EDUCATIONAL ENROLLMENT BY PLACE OF BIRTH AND GENDER

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

Nonenrollment among high-school-age adolescents is rare: only 6% of male and 7% of female native-born youths are not in school. Although the overwhelming majority of foreign-born adolescents are enrolled, I find substantial variation across places of origin. Male and female youths, however, show very little variation in their school enrollment. Despite a few cases with some odd gender differences (perhaps due to migration selectivity), most conclusions based on male enrollments would hold as well for female enrollments.

Levels of nonenrollment among youths born in Asia are generally very low. In fact, Asian youths are more likely to be in school than are native-born youths. Youths from Latin America and the Caribbean vary considerably more. The populations with the highest nonenrollment rates are those born in Mexico, Puerto Rico, Cuba, the Dominican Republic, El Salvador, and Guatemala. Nonenrollment rates among recent Mexican immigrants (those who arrived after 1982) are extraordinarily high, over 40%, but Mexican youths who arrived as very young children show only moderately high rates of school attrition, slightly over 10%. Although the groups from the Hispanic Caribbean suffer serious educational enrollment problems, those from the West Indies (Haiti, Jamaica, and other islands) are doing about as well as the native-born. The refugee populations from Central America are typically considered as groups at risk of failure, but nonenrollment rates are high only among adolescents from El Salvador and Guatemala. More than 90% of youths from Nicaragua are enrolled in school.

The segmented-assimilation hypothesis would predict an increase in the rate of nonenrollment with longer duration of

TABLE 2. PERCENTAGE OF FOREIGN-BORN^a AND NATIVE YOUTHS, AGE 15–17, NOT ENROLLED IN SCHOOL, BY PLACE OF BIRTH, GENDER, AND YEAR OF ENTRY: UNITED STATES, 1990

| Place of Birth | Males | | | Females | | |
|-----------------------------|-------|----------------|----------------|---------|----------------|----------------|
| | Total | Year of Entry | | Total | Year of Entry | |
| | | 1982–1990 | Pre-1982 | | 1982–1990 | Pre-1982 |
| Asia | | | | | | |
| China (Mainland) | 7.3 | 8.5 | 4.0 | 4.1 | 4.8 | 1.6 |
| Hong Kong/Macao | 3.4 | 2.9 | 4.4 | 4.2 | 4.8 | 3.4 |
| Taiwan | 2.7 | 2.9 | 2.3 | 3.5 | 4.5 | 1.3 |
| Japan | 3.1 | 2.6 | 4.5 | 2.9 | 3.5 | 0.0 |
| Korea | 5.2 | 5.9 | 4.2 | 5.5 | 5.7 | 5.4 |
| Cambodia | 6.8 | 7.6 | 5.8 | 5.9 | 7.6 | 3.8 |
| Laos | 7.6 | 10.8 | 5.6 | 6.8 | 5.6 | 7.5 |
| Vietnam | 4.2 | 6.0 | 2.7 | 5.1 | 6.7 | 4.2 |
| Philippines | 6.7 | 7.5 | 5.6 | 7.6 | 8.3 | 6.6 |
| Other east/southeast Asia | 5.4 | 2.0 | 10.0 | 1.9 | 3.4 | 0.0 |
| India, other south Asia | 5.7 | 7.5 | 3.7 | 5.4 | 9.3 | 1.3 |
| Middle East | 5.9 | 5.1 | 6.7 | 6.6 | 9.7 | 3.6 |
| Americas | | | | | | |
| Canada | 4.2 | 7.6 | 2.2 | 8.3 | 7.5 | 8.9 |
| Mexico | 28.0 | 41.5 | 13.0 | 24.0 | 37.2 | 11.9 |
| Puerto Rico | 12.5 | 10.8 | 14.0 | 17.0 | 15.8 | 18.1 |
| Cuba | 11.4 | 10.6 | 11.9 | 10.3 | 10.9 | 10.0 |
| Dominican Republic | 12.9 | 12.2 | 14.5 | 11.1 | 11.5 | 10.0 |
| Haiti | 7.6 | 5.3 | 12.0 | 11.2 | 10.4 | 13.9 |
| Jamaica | 8.7 | 10.6 | 5.6 | 6.8 | 9.1 | 3.6 |
| Other West Indies/Caribbean | 5.8 | 2.9 | 9.6 | 7.7 | 8.7 | 6.2 |
| El Salvador | 18.4 | 22.4 | 7.9 | 15.4 | 18.9 | 7.2 |
| Guatemala | 19.1 | 24.5 | 9.1 | 16.0 | 22.6 | 5.3 |
| Nicaragua | 7.5 | 8.9 | 1.7 | 9.6 | 9.3 | 10.8 |
| Other Central America | 9.5 | 9.0 | 10.3 | 10.5 | 14.5 | 1.7 |
| South America | 8.6 | 10.8 | 5.7 | 8.3 | 9.2 | 6.8 |
| Rest of World | | | | | | |
| Great Britain | 6.6 | 8.3 | 4.9 | 6.2 | 5.3 | 6.9 |
| Germany | 6.9 | 1.5 | 14.3 | 11.8 | 5.2 | 23.8 |
| Spain/Portugal/Azores | 13.6 | 16.7 | 11.9 | 7.6 | 4.5 | 9.2 |
| Former USSR | 8.6 | 10.3 | 6.7 | 9.2 | 10.9 | 6.8 |
| Rest of Europe | 8.6 | 4.8 | 13.4 | 8.5 | 7.3 | 10.3 |
| Africa | 6.8 | 7.0 | 6.5 | 7.1 | 7.8 | 6.3 |
| Oceania/Pacific Islands | 4.4 | 1.5 | 5.8 | 6.3 | 6.5 | 6.3 |
| Abroad, Place Not Reported | 19.1 | 24.8 | 11.0 | 19.2 | 20.5 | 17.3 |
| Foreign-Born | 14.7 | 19.5 | 9.1 | 13.3 | 17.2 | 9.0 |
| U.S.-Born | 6.2 | — ^b | — ^b | 7.6 | — ^b | — ^b |

Source: The foreign-born sample is taken from the 5% 1990 Census PUMS; the native-born sample is taken from the .1% 1990 Census PUMS.

^aThe foreign-born sample excludes persons born abroad of American parents.

^bYear of entry is relevant only for those born outside the United States.

residence for some immigrant groups, especially groups that face greater obstacles and possess fewer community resources. Mexicans display the reverse of this pattern, as do most immigrants from Central and South America. Some evi-

dence, however, supports the segmented-assimilation hypothesis: nonenrollment rates are higher among immigrants who arrived as small children (before 1982) than among 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 nonenrollment rates associated with longer residence in the United States (as the immigrants become more "Americanized"). Although this holds for Haitian immigrants and other West Indian males, the reverse is found for Jamaican immigrants.

With cross-sectional census data, one cannot examine the separate influences, on school enrollment, of age at immigration, year of immigration, and duration of residence in the United States. 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 preceding paragraph I emphasized the effect of longer duration of residence in the United States, leading to greater "Americanization," but even duration can be interpreted in multiple ways. The classical assimilation perspective suggests that longer residence, especially during childhood, would be positive, leading to a lower rate of dropping out. Longer exposure to American society is assumed to lead to greater acculturation, more knowledge of how the system works, and enhanced English-language facility. Yet according to the alternative expectation from the segmented-assimilation literature, greater exposure may lead to acculturation to the "oppositional culture" of American minority groups, which reject schooling as a means of social mobility.

Another potential explanation for the high rate of nonenrollment 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 already have dropped out of school before immigration. This certainly seems to be a strong possibility for the 1982–1990 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 form 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: for example, female childcare workers, exchange students, and refugees. This problem is compounded 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 in Table 2 suggest that any effects of the hypotheses under consideration here are probably swamped by compositional factors produced by selective migration.

IMMIGRANTS' FAMILIAL AND SOCIOECONOMIC BACKGROUND

On the basis of the matched records of the household, the householder, and the householder's spouse for the sample of foreign-born youths age 15 to 17 from the 5% PUMS file of

the 1990 Census, one can create a variety of indicators of family structure and socioeconomic resources. The five background variables selected here index dimensions that have been identified in the research literature as key influences on the enrollment of high-school-age youths in the United States. These variables fall into three broad categories: family structure, central-city residence, and socioeconomic status.

Youths 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 environments are thought to discourage educational aspirations and social mobility. Finally, children who grow up in families with greater social and economic resources are more likely to be more highly motivated (and more strongly 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 householder's spouse is living in the household (0 = not a married-couple household, 1 = married-couple household). The householder is simply the person in whose name the house or apartment is owned or rented. Although these variables do not directly measure the precise family composition for the sample youths—in an extended-family household, for example, a youth's parent(s) could be present but might not be the householder(s)—they are close proxies.

In the 5% PUMS file of the 1990 Census, the standard central city-suburb-nonmetropolitan variable was not included; the smallest geographical units were PUMAs (Public Use Microdata Areas), which contained a minimum of 100,000 population. On the basis of an analysis of another Census data file (STF3), Stults (1999) was able to assign each PUMA to one of the following categories: (1) 100% of the population is central city, (2) less than 100% but more than 95% of the population is central city, (4) 100% of the population is suburban, (5) less than 100% but more than 95% is suburban, and (9) less than 95% is central city and less than 95% is suburban. The PUMAs not classified were considered to be nonmetropolitan areas. Following Stults, I consider only types 1 and 2 to be central-city PUMAs, and type 9 to be nonclassifiable. Two measures of the household's socioeconomic status are reported: the percentage of householders with some college (13 or more years of schooling) and the percentage of households below the official poverty line, adjusted for household size.

Overall I find fairly modest differences in family structure between immigrant and native-born teenagers. Foreign-born adolescents are somewhat less likely than their native-born peers to be the householder's child. Youths from some immigrant groups, however, are much less likely to be living with their parents, especially immigrants from Mexico and Central America (Salvadorans, Guatemalans, Nicaraguans, and other Central Americans). Some Mexican teenagers

TABLE 3. SOCIAL BACKGROUND CHARACTERISTICS OF FOREIGN-BORN^a AND NATIVE-BORN YOUTHS, AGE 15–17: UNITED STATES, 1990 (PERCENTAGES)

| Place of Birth | Child of Householder ^b | Married-Couple Household ^c | Central-City Residence ^d | College-Educ. Householder ^e | Below Poverty ^f |
|-----------------------------|-----------------------------------|---------------------------------------|-------------------------------------|--|----------------------------|
| Asia | | | | | |
| China (Mainland) | 88 | 88 | 63 | 30 | 24 |
| Hong Kong/Macao | 82 | 79 | 50 | 40 | 21 |
| Taiwan | 86 | 76 | 19 | 73 | 19 |
| Japan | 66 | 85 | 11 | 82 | 36 |
| Korea | 90 | 85 | 31 | 61 | 18 |
| Cambodia | 85 | 67 | 51 | 23 | 47 |
| Laos | 86 | 78 | 42 | 22 | 43 |
| Vietnam | 84 | 73 | 33 | 38 | 36 |
| Philippines | 85 | 78 | 30 | 72 | 7 |
| Other east/southeast Asia | 77 | 70 | 29 | 60 | 30 |
| India, other south Asia | 90 | 88 | 28 | 72 | 15 |
| Middle East | 89 | 83 | 36 | 52 | 24 |
| Americas | | | | | |
| Canada | 91 | 83 | 15 | 70 | 12 |
| Mexico | 69 | 70 | 37 | 8 | 42 |
| Puerto Rico | 86 | 49 | 51 | 30 | 43 |
| Cuba | 88 | 77 | 50 | 22 | 25 |
| Dominican Republic | 88 | 48 | 79 | 15 | 40 |
| Haiti | 80 | 55 | 49 | 26 | 32 |
| Jamaica | 86 | 53 | 46 | 30 | 18 |
| Other West Indies/Caribbean | 82 | 52 | 50 | 30 | 26 |
| El Salvador | 71 | 59 | 57 | 14 | 33 |
| Guatemala | 71 | 61 | 61 | 16 | 38 |
| Nicaragua | 73 | 63 | 48 | 38 | 35 |
| Other Central America | 73 | 62 | 46 | 31 | 34 |
| South America | 81 | 68 | 42 | 39 | 23 |
| Rest of World | | | | | |
| Great Britain | 93 | 80 | 17 | 71 | 10 |
| Germany | 56 | 74 | 15 | 68 | 39 |
| Spain/Portugal/Azores | 81 | 85 | 30 | 19 | 24 |
| Former USSR | 93 | 85 | 63 | 55 | 35 |
| Rest of Europe | 82 | 84 | 32 | 52 | 19 |
| Africa | 83 | 71 | 31 | 69 | 21 |
| Oceania/Pacific Islands | 84 | 77 | 19 | 56 | 23 |
| Abroad, Place Not Reported | 54 | 55 | 46 | 26 | 43 |
| Foreign-Born | 78 | 71 | 39 | 32 | 32 |
| U.S.-Born | 90 | 73 | 14 | 46 | 16 |

Source: The foreign-born sample is taken from the 5% 1990 Census PUMS; the native-born sample is taken from the .1% 1990 Census PUMS.

^aThe foreign-born sample excludes persons born abroad of American parents.

^bChild of householder includes children or stepchildren of the person owning or renting the house.

^cMarried-couple households include at least one husband and wife in the household.

^dCentral-city residence excludes metropolitan-area suburbs and nonmetropolitan areas.

^eThe householder (who owns or rents the house) has 13 or more years of schooling.

^fThe census poverty line is a measure of low income, adjusted for household composition.

probably came to the United States to find employment with friends or family members, not necessarily with their parents. Perhaps the refugee flight from the civil wars in Central America led some teens to immigrate with other relatives. The very low figures—66% of the Japanese sample and 56% of the German teenagers who were the householder's child, the lowest figures in the table—may reflect a pattern of exchange students rather than immigration.

I find no difference in the overall proportion of native-born and foreign-born youths who live in married-couple households: about three-fourths of both groups do so. This dimension, however, is quite heterogeneous by country of origin. Asian immigrant youths are as likely as the native-born, or more likely, to live in married-couple households. Among the Asian immigrants, even the lowest percentage living in a married-couple household—67%, for the Cambodians—is reasonably high. At the other end of the distribution, Caribbean and Central American youths are much less likely to live in a married-couple household: only about 50% of Spanish-speaking Puerto Ricans, French-speaking Haitians, English-speaking Jamaicans, and other West Indian populations live in such households. Percentages for other Latin American groups are slightly lower than the overall average for the foreign-born.

Central-city residence is 39% for immigrants, compared with only 14% for the native-born. Central-city concentrations are very low in a few immigrant groups—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 overrepresented in central-city areas. The highest fractions living in central cities were reported for Dominicans at 79% and immigrants from the former Soviet Union 63%. Not all central-city residents are exposed to the dangers and social problems of concentrated poverty and urban decay, but the rarity of native-born youths living in central cities suggests that this is not the preferred environment for families with teenage children.

About one-half of native-born adolescents live in a household where the householder has some tertiary education compared with one-third of the foreign-born. Presumably a parent (or householder) with postsecondary schooling will try to keep their children in school, at least through the high school years. American teenagers born in Taiwan and India are exceptionally advantaged: more than 70% live in a household with an adult (most likely the parent) who has attended college. Among Mexican immigrant youths, the comparable figure is 8%. Refugee populations, both from southeast Asia (Cambodians and Laotians) and Central America (El Salvador and Guatemala), also show very low levels of family "human capital."

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 is 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 classifications in Table 3 mirrors the distribution of householders with some college education. In general, levels of poverty are much higher in Latin American and Caribbean populations than in Asian populations (except for Cambodians and Laotians). The poverty rates for Mexican, Puerto Rican, and Dominican youths are exceptionally high. Below, in the multivariate analysis of school enrollment, I include these background variables as covariates to learn whether 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 new immigrant communities' paths of adaptation to American society, depending on each group's internal resources, the place of settlement, and the reception by the host society; these factors might be correlated with some of the background variables measured in Table 3. In Table 4, I estimate logistic regressions of the odds of nonenrollment to enrollment in a baseline model with only age and sex as covariates, and in a full model including all covariates. The POB (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, I present the exponentiated coefficients.

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 nonenrollment of the foreign-born population, and a value of less than 1 indicates a lower nonenrollment rate of the foreign-born population. The coefficients of the "control variables" are expressed in comparable fashion. The odds of nonenrollment by age are computed relative to 17-year-olds, the omitted category. 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 covariates are expressed relative to their complements, which represent the other category of each variable (e.g., male to female, child of householder to not child of householder).

Four baseline models and four models with all covariates are presented in Table 4. The first model includes all immigrant youths; Models 2 and 3 respectively represent the same equation estimated for the populations of recent immigrants (who arrived from 1982 to 1990) and for those who arrived earlier (before 1982). Model 4 is an interaction model, which tests whether the differences in POB (place of birth) coefficients by YOA (year of arrival) in Model 2 and Model 3 are statistically significant.² Models 5 through 8 are

2. The test of significance of the POB-by-YOA coefficients in Model 4 is estimated in a single equation in which all possible interactions of POB with each covariate are included; thus the value of the covariates is allowed to vary by YOA.

TABLE 4. LOGISTIC REGRESSION OF EDUCATIONAL NONENROLLMENT ON PLACE OF BIRTH AND SOCIAL BACKGROUND OF FOREIGN-^a AND NATIVE-BORN YOUTHS, AGE 15–17: UNITED STATES, 1990

| Place of Birth | Exp(B): Odds Ratio of Nonenrollment/Enrollment | | | | | | | | | |
|---------------------------------|--|--------------------|---------------------------|--|------------------------------|----------------------------|---------------------------|--|---|-------|
| | Baseline Models With Only Age and Gender | | | | | Models With All Covariates | | | | |
| | All Immigrants Model 1 | Year of Arrival | | Significance of POB × YOA Model 4 | All Immigrants Model 5 | Year of Arrival | | Significance of POB × YOA Model 8 | Number of Observations 1982–90 Before 1982 | |
| | | 1982–90 Model 2 | Before 1982 Model 3 | | | 1982–90 Model 6 | Before 1982 Model 7 | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| Asia | | | | | | | | | | |
| China (Mainland) | 0.82 | 0.96 | 0.42 | | 0.67 | 0.78 | 0.45 | | 406 | 134 |
| Hong Kong/Macao | 0.54* | 0.54 | 0.53 | | 0.39** | 0.37* | 0.54 | | 185 | 104 |
| Taiwan | 0.45** | 0.55* | 0.26* | | 0.45** | 0.51* | 0.35 | | 328 | 163 |
| Japan | 0.42* | 0.45 | 0.29 | | 0.30** | 0.34* | 0.27 | | 178 | 47 |
| Korea | 0.78 | 0.86 | 0.70 | | 0.84 | 0.87 | 0.83 | | 550 | 554 |
| Cambodia | 0.93 | 1.15 | 0.66 | | 0.69 | 0.85 | 0.53 | | 263 | 203 |
| Laos | 1.13 | 1.36 | 1.00 | | 0.86 | 1.14 | 0.73 | | 307 | 534 |
| Vietnam | 0.64** | 0.88 | 0.47** | ** | 0.51** | 0.63** | 0.45** | * | 881 | 1,258 |
| Philippines | 1.06 | 1.17 | 0.90 | | 1.04 | 1.06 | 1.07 | | 767 | 556 |
| Other east/southeast Asia | 0.37 | 0.40 | 0.33 | | 0.32** | 0.30* | 0.41 | | 103 | 85 |
| India, other south Asia | 0.82 | 1.31 | 0.35** | ** | 0.96 | 1.32 | 0.51* | ** | 475 | 436 |
| Middle East | 0.96 | 1.14 | 0.80 | | 0.93 | 0.99 | 0.93 | | 397 | 430 |
| Americas | | | | | | | | | | |
| Canada | 0.97 | 1.20 | 0.84 | | 1.13 | 1.33 | 0.99 | | 168 | 267 |
| Mexico | 4.82** | 9.04** | 1.95** | ** | 2.79** | 4.71** | 1.47** | ** | 4,710 | 4,701 |
| Puerto Rico | 2.42** | 2.24** | 2.59** | | 1.90** | 1.71** | 2.15** | * | 810 | 900 |
| Cuba | 1.67** | 1.69* | 1.66** | | 1.38* | 1.50 | 1.31 | | 196 | 355 |
| Dominican Republic | 1.93** | 1.99** | 1.83* | | 1.41* | 1.47* | 1.41 | | 411 | 151 |
| Haiti | 1.49 | 1.25 | 2.16* | | 1.00 | 0.86 | 1.63 | | 216 | 85 |
| Jamaica | 1.14 | 1.54* | 0.60 | * | 0.86 | 1.12 | 0.52 | | 332 | 215 |
| Other West Indies/ Caribbean | 1.01 | 0.92 | 1.13 | | 0.71 | 0.64 | 0.92 | | 290 | 213 |
| El Salvador | 2.79** | 3.63** | 1.10 | ** | 1.50** | 2.01** | 0.73 | ** | 806 | 327 |
| Guatemala | 3.00** | 4.28** | 1.17 | ** | 1.63** | 2.33** | 0.81 | ** | 280 | 162 |
| Nicaragua | 1.22 | 1.30 | 0.87 | | 0.72 | 0.83 | 0.61 | | 393 | 94 |
| Other Central America | 1.49 | 1.72** | 0.99 | | 0.94 | 1.10 | 0.78 | | 255 | 125 |
| South America | 1.27 | 1.58** | 0.88 | ** | 0.97 | 1.13 | 0.83 | | 794 | 560 |
| Rest of World | | | | | | | | | | |
| Great Britain | 0.95 | 1.10 | 0.83 | | 1.21 | 1.35 | 1.06 | | 185 | 216 |
| Germany | 1.24 | 0.43 | 2.92* | ** | 0.70 | 0.27** | 1.86* | ** | 141 | 89 |
| Spain/Portugal/Azores | 1.45* | 1.29 | 1.54 | | 1.11 | 0.80 | 1.44 | | 123 | 240 |
| Former USSR | 1.37 | 1.78** | 0.98 | | 1.47* | 1.76* | 1.16 | | 235 | 192 |
| Rest of Europe | 1.28 | 0.90 | 1.84* | ** | 1.11 | 0.75 | 1.82** | ** | 561 | 408 |
| Africa | 1.05 | 1.13 | 0.96 | | 0.96 | 0.87 | 1.23 | | 222 | 188 |
| Oceania/Pacific Islands | 0.70 | 0.61 | 0.74 | | 0.63** | 0.42* | 0.85 | | 141 | 275 |
| Abroad, place not reported | 3.09** | 3.68** | 2.30** | ** | 1.36** | 1.73** | 1.18 | | 587 | 408 |
| U.S.-Born | Omitted | Omitted | Omitted | | Omitted | Omitted | Omitted | | 4,631 | 4,631 |

(continued)

(Table 4, continued)

| | Exp(B): Odds Ratio of Nonenrollment/Enrollment | | | | | | | | | |
|--------------------------|--|-----------------|----------------|---------------------------------|---------|----------------------------|-----------------|----------------|---------------------------------|------------------------|
| | Baseline Models With Only Age and Gender | | | | | Models With All Covariates | | | | |
| | All Immigrants | Year of Arrival | | Significance of POB × YOA | Model 4 | All Immigrants | Year of Arrival | | Significance of POB × YOA | Number of Observations |
| | | 1982–90 | Before 1982 | | | | 1982–90 | Before 1982 | | |
| Place of Birth | Model 1 | Model 2 | Model 3 | | | Model 5 | Model 6 | Model 7 | Model 8 | 1982–90 Before 1982 |
| Age 15 | 0.32** | 0.27** | 0.41** | | | 0.38** | 0.33** | 0.45** | | 6,584 5,986 |
| Age 16 | 0.54** | 0.51** | 0.59** | | | 0.59** | 0.57** | 0.61** | | 6,992 6,436 |
| Age 17 | Omitted | Omitted | Omitted | | | Omitted | Omitted | Omitted | | 7,751 6,884 |
| Male | 0.98 | 1.01 | 1.08 | | | 0.98 | 1.02 | 1.04 | | |
| Child of Householder | | | | | | 0.20** | 0.27** | 0.21** | | |
| Married-Couple Household | | | | | | 0.82** | 0.83** | 0.85** | | |
| Central-City Residence | | | | | | 1.15** | 1.11* | 1.18** | | |
| Householder With College | | | | | | 0.57** | 0.61** | 0.55** | | |
| Poverty | | | | | | 0.99 | 0.95 | 1.03 | | |
| Constant | 0.073** | 0.078** | 0.061** | | | 0.103** | 0.097** | 0.099** | | |
| –2 Log-Likelihood | 24,683 | 15,306 | 10,496 | 23,509 | | 22,494 | 14,304 | 9,783 | 21,583 | |
| Chi-Square | 2,939 | 3,168 | 546 | 4,112 | | 5,127 | 4,170 | 1,258 | 6,038 | |
| N | 36,002 | 21,327 | 19,306 | 36,002 | | 36,002 | 21,327 | 19,306 | 36,002 | |

Notes: Models 1, 2, and 3 include place of birth, age, and gender as additive independent variables. Model 4 reports the statistical significance of the interaction of POB (place of birth) and YOA (year of arrival) for the baseline model. Models 5, 6, and 7 include place of birth, age, gender, two family structure variables, central-city residence, householder's education, and poverty as additive independent variables. Model 8 reports the statistical significance of the interaction of POB (place of birth) with YOA (year of arrival) for the model with all covariates.

*The foreign-born sample excludes persons born abroad of American parents.

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

complements to Models 1 to 3; they include all covariates in the equation predicting nonenrollment. The logic is not to explain away the effect 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 1, the baseline equation for the entire population of immigrants, the first-order distinction is that Asian immigrants are more likely to be enrolled in high school than are native-born teenagers; the opposite pattern holds for most national-origin groups from the Americas and the rest of the world. Many immigrant groups, especially those from Latin America, are less likely than the native-born to be enrolled. Most of these national-origin differences, however, are generally within the range of sampling error. Among the Asian immigrant groups, only those from Hong Kong, Taiwan (but not China), Japan, and Vietnam are significantly more likely than the native-born to be enrolled in school; among the Latin American groups, Mexicans, Puerto Ricans, Cubans, Dominicans, and Central Americans are significantly less likely to be in school.

In Model 5, the five covariates are added to the baseline equation to show whether the "Asian advantage" or the "Latin American disadvantage" in teenage enrollment rates

might be explained by differences in family structure, socioeconomic status, and residence patterns. The patterns in Table 3 revealed that not all the background characteristics of the Asian samples were positive. In general, family composition characteristics were favorable for Asian adolescents, but groups varied widely in residence and socioeconomic status. Nonetheless, the comparison of the baseline model with Model 5 (with the covariates included) shows a fairly consistent pattern in which Asian odds ratios become lower (more favorable) with adjustment for differences in background variables. This pattern appears to be counterintuitive and requires some discussion.

Typically the introduction of additional covariates reduces the association (or effect) between an independent variable (place of birth) and the dependent variable (nonenrollment), with a straightforward interpretation: 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, an indication that suppressor effects are present. I find an underlying Asian advantage in educational enrollment that is not due to any of the variables

measured here. Given that most 15- to 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 consistent across almost all populations.

The deficit in educational enrollment for some Latin American groups is explained in part by poorer environments and fewer family resources. About 40% of Mexican immigrants' observed deficit in educational enrollment is a product of poorer family resources (particularly family composition), but the net Mexican educational disadvantage remains much larger than that of any other group. I also find persistent, but smaller, educational disadvantages in enrollment for Puerto Ricans, Cubans, Dominicans, Salvadorans, and Guatemalans, but these are reduced in part by controls for socioeconomic status, family background, and central-city residence.

The results displayed in Table 4 are also important for what they do not show. Among Afro-Caribbean immigrants, who are predominantly black, there is little evidence of low educational enrollments. Haitians show a modest, nonstatistically significant enrollment deficit, but this is due entirely to other background variables. The observed educational enrollments of immigrants from Jamaica and the West Indies in the baseline equation are close to parity with those of the native-born; with the covariates included in Model 5, a West Indian advantage seems to emerge, very similar to the Asian pattern.

Immigrants from Central America show two quite different patterns. Levels of nonenrollment are very high among adolescents from El Salvador and Guatemala. About half of their disadvantage is explained by the covariates in the model, particularly family composition. On the other hand, the observed enrollment rates for adolescents from Nicaragua, other Central American countries, and South America do not differ significantly from those of the native-born. With the introduction of covariates, the odds ratios fall below 1. It seems that there are two types of refugee populations: the less successful, from El Salvador and Guatemala, and those who are much more likely to be enrolled in school, from Nicaragua.

In spite of the wide variations in the educational enrollments of immigrants from the rest of the world, very few numbers differ significantly from those for the native-born. Immigrants from the former Soviet Union experience a modest deficit that is partially masked by favorable family composition and higher socioeconomic status. Students from Oceania/Pacific Islands appear to be doing very well in educational enrollment. Teenagers in the residual category "abroad, place not reported," of whom 51% were Hispanic (see Table 1), show a serious educational deficit in enrollment, which is partially due to their unfavorable family and socioeconomic status.

The covariates in Model 5 show interesting and sometimes unexpected direct effects on educational enrollment. Gender differences are small and not significant. Living as the child of a householder is the single most powerful variable in the analysis, but there is some reason to doubt whether this variable is a true cause of nonenrollment. My 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. Living in a household without a parent, however, might also be a correlate of labor migration by adolescents who did not plan to attend school after migration. In subsequent analysis, I examine this question more closely by comparing recent migrants with those who came as small children. The proxy for a two-parent household (whether the householder's spouse is present) has a significant and positive net effect on enrollment, although the effect is not as large as being the child of the householder.

Living in a central city does increase adolescents' nonenrollment. Because this variable is not limited to inner-city areas with poor educational climates, it is likely that the impact of impoverished neighborhoods could even be greater. A householder with some college education is a very powerful predictor of teenagers staying in school. Poverty status, however, does not affect enrollment status when all the other variables in the model are held constant. 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 are family composition, place of residence, and parental education.

I estimate the same models for recent immigrants (arrived 1982 to 1990) in Models 2 and 6 and for long-term immigrants (arrived before 1982) in Models 3 and 7 in Table 4. In addition to defining duration of residence in the United States, this classification captures age at the time of arrival for youths age 15 to 17 in 1990. The recent arrivals ranged in age from 8 to 17 at the time of arrival and most likely began formal schooling in their home country. Not only was their schooling disrupted by an international move; in addition, many of these adolescents still may be in the early stages of adaptation to American society. In contrast, the immigrants in second group were age 8 or younger at the time of arrival in the United States. Probably almost everyone in the second group acquired English fluency from obtaining all of their education in the United States, and have only a fading memory, if any, of life in their home country.

The recent arrivals are expected to show more variation in educational outcomes by place of birth, but this variation may be buffered somewhat by their social setting. The longer-term immigrants who arrived as preschoolers are more like a second-generation population, with a much heavier exposure to 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. Although the 5% PUMS data file is extraordinarily large, some of the country-of-origin samples fall below 100 observations (see the last two columns on the right-hand side of Table 4). My interpretation is accordingly cautious.

In general, recently arrived immigrant adolescents are less likely to be enrolled in school than the overall sample of immigrant adolescents. Many Asian groups still show odds ratios below 1, indicating lower nonenrollment (or higher

enrollment) rates than the native-born, but only one group (Taiwan) differs significantly from the native-born reference category in the baseline Model 2. For several Asian immigrant groups (Cambodia, Laos, the Philippines, south Asia, the Middle East), the odds ratio is above 1. Although these coefficients do not reach statistical significance, they indicate that recently arrived Asian teenagers experience problems of educational adjustment. 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 corresponds to a nonenrollment rate above 40%. Nonenrollment rates also are very high in several other groups, including Salvadorans and Guatemalans.

New arrivals face a number of problems, including adapting to a new school system operated in a language different from that of their home country. Newly arrived teenagers probably live in households with adult family members who are still adjusting to life in the United States. Migrants who arrive as teenagers also may be more likely to live in extended-family households or with other relatives who may not include a parent. Indeed, as these background factors are held constant in Model 6, considerable modification in the patterns of educational disadvantage are evident in the baseline model.

Much of the educational handicap faced by newcomers is due to recent immigrants' lower level of resources and supports. The effects of foreign birth for most Latin American groups are attenuated by one-third or more in Model 6, relative to Model 2. Among recently arrived Mexican immigrants, the extremely high level of nonenrollment in high school is reduced by almost half when all the covariates are included in the model. The patterns of educational enrollment for Asian groups also display interesting changes from Model 2 to Model 6. When the covariates are introduced, many of the coefficients for Asian groups become significant and show a distinct underlying Asian educational advantage (lower nonenrollment rates in high school) relative to the native-born. This advantage is masked in the baseline model because of family composition: that is, fewer Asian immigrant adolescents are living in households as the householder's child.

As noted earlier, it is possible to question the assumption that household and family structure causally precedes adolescents' high school enrollment. I assume that teenagers with educational problems are less likely to drop out of high school if a parent, and preferably both parents, are present in the household and can 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 could have migrated to the United States to seek employment. Such an individual's household living arrangement, with coworkers or other kin, is more likely to be a consequence of migration than the primary cause of nonenrollment in school. I suspect that labor migration is particularly important for some Latin

American populations, including "other" Central Americans and South Americans.

In Models 3 and 7, I conduct a parallel analysis of educational enrollment for immigrants who arrived as small children (before 1982). Most of these immigrants were in below school-going age at the time of their arrival in the United States, and their life experiences probably are fairly close to the picture of the second generation, who receive all of their education in the United States and were socialized into American culture at an impressionable age. The immigrant optimism hypothesis would predict that most adolescents adapt successfully to the American educational climate. These teenagers not only receive encouragement from immigrant families, but also have spent sufficient time in the country to become fluent in English and familiar with the American system. The segmented-assimilation hypothesis, however, would predict that some of these groups might not be doing well, especially if they were socialized by their peers in inner-city schools and neighborhoods to an adolescent culture that rejects education as a means of social mobility.

The results displayed in Model 4 provide some support for both of these hypotheses. In general, educational enrollment varies much less among immigrants who arrived as children than among recent arrivals. (The chi-square is only 546 for the baseline Model 3, compared with 3,168 for the baseline Model 2.) Almost every group of Asian national origin shows a lower probability of dropping out of high school than native-born youths, though few of the coefficients are statistically significant (perhaps because of the small sample sizes). The nonenrollment of youths from Taiwan is extremely low, though it is no longer significant in Model 7, where their favorable socioeconomic status (especially householder's college enrollment) is held constant. The very low nonenrollment rates of Vietnamese and Indian (south Asian) teenagers remain significant even when all covariates are included. These results indicate strong support for the immigrant optimism hypothesis.

The pattern of Latin American educational enrollment among these samples of long-term immigrants is distinctly different from that of the recent arrivals. In most cases, I no longer find a Latin American disadvantage. Among Salvadorans and Guatemalans with enough time to adjust to American society, educational enrollments are comparable to those of natives. Indeed, with controls for family composition, location, and socioeconomic status (in Model 7), they are more likely than native-born teenagers to be enrolled in school (though the difference is not significant). An alternative explanation to this interpretation (that duration of residence is sufficient to allow for catching up) is that the composition of immigrants from El Salvador and Guatemala changed in the 1980s relative to waves of immigration from these countries. These alternative hypotheses can be examined only with data from multiple time points, which will allow for independent estimates of duration of residence in the United States and period of arrival.

The Mexican disadvantage persists in Model 3, but the gap between Mexicans and the native-born is fairly modest.

It is reduced further in Model 7 with controls for social background, especially householder's education. This generally positive picture, however, contains some glaring exceptions. In spite of long-term residence in the mainland United States, I find a significant enrollment deficit in several Caribbean groups: 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 live 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 on educational opportunities. In her analysis of students' 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, and those who adopted a Chicano or Cholo identity and rejected conformity to the school's academic norms. The development of an alternative outlook was also the dominant cultural pattern in the predominantly black high school studied by Fordham (1996).

Above-average school attrition is also evident among long-term German immigrants, those from "the rest of Europe," and the interesting unknown category (abroad, but place of birth not reported). Small sample sizes and insufficient information about these groups, however, preclude a substantive interpretation of these findings.

In Models 4 and 8, I ask whether the observed differences by year of arrival are statistically different for any national-origin (place-of-birth) group. In other words, should an interpretation for a particular immigrant group's educational enrollment be qualified by the group members' age at arrival? Important distinctions exist for some groups, although the differences often can be explained by differences in socioeconomic position or family structure. For example, the generally very positive educational enrollment of Vietnamese youths is observed only for those who arrived as children, but not for recently arrived Vietnamese immigrant youths: the educational enrollment for the latter is about the same as for the reference group of native-born Americans. Once the covariates are included in the equations, however, both recent and long-term Vietnam immigrants possess a similar "Asian advantage" relative to the native-born. Even so, the advantage is significantly greater for the Vietnamese students who came at a younger age.

I find statistically different coefficients for recently arrived immigrants from India/south Asia and for those who have been here since early childhood; this difference is not affected by adjustments for the covariates. Perhaps this distinction reflects a change in the immigrant streams: for example, the earlier wave of Indian immigration may have been much more selective in terms of educational ambitions for

their children. Alternatively, recently arrived Indian teenagers may have more trouble with adjustment than did earlier arrivals.

I also find several other interactions by year of arrival for Latin American immigrants. Perhaps most dramatic, the rate of nonenrollment among longtime-resident Mexican immigrants is much lower than among the recent arrivals. The same finding holds for the earlier waves of immigrants from El Salvador and Guatemala, who came as children (and experienced few educational problems), and those who came at older ages and displayed much higher levels of nonenrollment.

There are also a few cases in the opposite direction as well (e.g., teenagers from Germany and "the rest of Europe"), in which the newest arrivals fare better than those who have been in the United States for a longer period. Perhaps these unexpected patterns are due to changes in particular streams of arrivals, such as a significant number of exchange students among those with short durations of residence in the country.

The family structure and socioeconomic covariates generally produce very similar patterns of effects in Models 6 and 7, even though the samples are quite different. For example, school attrition is associated strongly with age but not with gender. The single most important predictor of continuing in high school is family composition, especially living with a parent. (The proxy is being the householder's child.) Model 7 provides the critical test for this variable because labor migration in one's teens could not be a factor for youths who arrived at a very young age. This finding suggests that parental presence provides critical support and encouragement, which helps to keep teenagers enrolled in high school. Central-city residence increases the risk of dropping out of high school; having a parent (householder) with a college education is a positive factor ensuring that adolescents remain enrolled.

THE ROLE OF RACE AMONG "AT-RISK" STUDENTS

For most students, whether foreign-born or native-born, staying in high school is the norm, and in fact most complete high school. Dropping out of high school, however, remains a serious problem for a few national-origin groups: Mexicans, Puerto Ricans, Cubans, Dominicans, and recent immigrants from El Salvador and Guatemala. This selective pattern of an above-average rate of high school dropouts in certain groups is consistent with the segmented-assimilation hypothesis. Portes and Zhou (1993) note that inner-city residence, poorer socioeconomic status, and a minority identity could contribute to downward mobility among some of the new immigrant groups.

Race is one potentially important factor in the segmented-assimilation interpretation. Immigrants who are visibly different, especially those who are likely to be seen as black, may encounter greater discrimination, lower expectations, and less encouragement from teachers and others in positions of authority in schools and the community. In Table

5, to investigate the potential role of race, I present logistic regression models of the effect of national origin (place of birth) on nonenrollment (relative to the native-born) for several "at-risk" populations by period of entry into the United States (before 1982, 1982–1986, and 1987–1990) and by race (white and black/other). As in the previous table, Table 5 presents a set of baseline equations (Models 1–4) with controls only for demographic composition (age and gender), and a set of full models with covariates for family structure, central-city residence, and socioeconomic status of the teenager's family (Models 5–8).

In addition to the five "at-risk" immigrant populations identified in Table 4 (immigrants from Mexico, Puerto Rico, Cuba, the Dominican Republic, and El Salvador/Guatemala), an additional immigrant group from Haiti, Jamaica, and the West Indies is included in Table 5. 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. I divide year of entry into three intervals (before 1982, 1982–1986, and 1987–1990) to search for evidence of a pattern of declining or increasing high school attrition with longer duration of U.S. residence. Race is measured simply as the choice among a set of categories in the census question. A household respondent, who is probably not the adolescent, generally fills in the census form.

This analysis is potentially problematic because the meaning of race is unclear for some immigrant groups and because of the small numbers in some immigrant groups when subdivided by race and year of arrival. 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 neither answer the race question nor mark the "other race" box. For this reason, in Table 5 I collapse the race categories to a simple contrast between "black/other race" and "white." Responses to the race question in the census may not always reflect how persons are seen or classified by others in everyday life. There are a sufficient number of observations for the analysis, by race, of immigrants from Mexico, Puerto Rico, and El Salvador/Guatemala, but relatively few cases are available in some of the other subdivisions (especially the Cuban black/other, Dominican white, and Haitian/Jamaican/West Indian white categories) by year of arrival (YOA) groups. My interpretation is appropriately cautious.

In Model 1, the baseline model, I estimate the impact of national origin (place of birth) for the six "at-risk" populations (relative to the native-born) for three YOA groups on educational nonenrollment, with only age and sex as covariates. The same equation, with all seven covariates included, is presented in Model 5. Models 2 and 6 replicate the same equations for "black/other" respondents; Models 3 and 7 do so for whites. Models 4 and 8 are tests of the interaction of race with the POB/YOA categories.

For Mexicans, enrollment rates clearly increase with a younger age at arrival in the United States. The problem of nonenrollment is particularly acute for those who arrived

from 1987 to 1990. This pattern is attenuated when covariates are added to the model (compare Model 5 with Model 1), but the basic finding holds. Mexican immigrants who arrived as young children are still more likely to drop out of school than native-born youths, but the gap is relatively modest and does not differ much from that of the other "at-risk" populations. I find only small differences in enrollment between Mexican immigrants who are classified as white or as "other." (Very few Mexicans report themselves as black.) Net of all the covariates, white immigrants from Mexico (Model 7) show slightly smaller nonenrollment gaps relative to the native-born than do "other" Mexican immigrants (Model 6), but the differences are not significant (Model 8).

This pattern of Mexican progress (with longer duration of residence in the United States), relatively unaffected by race, is very similar to that for immigrants from El Salvador and Guatemala. Recent arrivals from these two countries are especially disadvantaged, perhaps because their schooling was interrupted by flight from the civil wars in Central America. This enrollment deficit (Model 1) is substantially attenuated with the inclusion of the covariates (Model 5), but is not eliminated. Central American immigrants who arrived as small children are on a par (in educational enrollment) with native-born Americans. Differences by race in the Central American population are modest and not significant. Both the Mexican and the Central American cases would be consistent with a standard assimilation interpretation.

Afro-Caribbeans—teenage immigrants from Haiti, Jamaica, and the West Indies—are sometimes considered to be an "at-risk" population because of their geographical and phenotypic proximity to African Americans. Afro-Caribbean youths are considerably less likely to live in married-couple households than native-born teenagers, and their social background characteristics are less favorable than those of the native-born population. Nonetheless, Afro-Caribbeans' levels of nonenrollment are relatively low for all duration-of-residence categories. Although Table 2 contained some tentative signs of Haitian educational problems, I found virtually no evidence of an educational deficit for the West Indian population as a whole.

The situation for the Hispanic immigrants from the Caribbean (Puerto Ricans, Cubans, and Dominicans) is quite different than for the other Latin American immigrant groups. Puerto Rican teenagers show higher levels of nonenrollment, regardless of their duration in the United States.³ Both recent Cuban and Dominican immigrants and those who arrived as young children are less likely to be enrolled in high school than are native-born Americans. Inexplicably, the net levels of nonenrollment for those of intermediate duration in the United States (arrived from 1982 to 1986) do not differ statistically from those of the native-born. At a minimum, I conclude that the problem of nonenrollment does not decline monotonically by duration of residence in the United States.

3. Persons born in Puerto Rico are not immigrants, but they appear to answer the census question "When did this person come the United States to stay" with the time of their move to the U.S. mainland.

TABLE 5. LOGISTIC REGRESSION OF EDUCATIONAL NONENROLLMENT ON PLACE OF BIRTH, YEAR OF ARRIVAL, RACE, AND SOCIAL BACKGROUND OF SELECTED FOREIGN-^a AND NATIVE-BORN YOUTHS, AGE 15–17, BY YEAR OF ENTRY: UNITED STATES, 1990

| Place of Birth | Exp(B): Odds Ratio of Nonenrollment/Enrollment | | | | | | | | | |
|-----------------------------|--|----------------------------|------------------|---|------------------------------|----------------------------|------------------|---|------------------------|-------|
| | Baseline Models With Only Age and Gender | | | | Models With All Covariates | | | | | |
| | All Immigrants Model 1 | Race | | Significance of POB × Race Model 4 | All Immigrants Model 5 | Race | | Significance of POB × Race Model 8 | Number of Observations | |
| | | Black/ Other Model 2 | White Model 3 | | | Black/ Other Model 6 | White Model 7 | | Black/Other | White |
| Mexico | | | | | | | | | | |
| Before 1982 | 1.93** | 1.80** | 1.97** | | 1.52** | 1.73** | 1.46** | | 2,912 | 1,789 |
| 1982–1986 | 4.71** | 4.38** | 4.79** | | 2.83** | 3.21** | 2.74** | | 1,072 | 706 |
| 1987–1990 | 12.73** | 12.31** | 12.31** | | 5.53** | 6.77** | 4.76** | | 1,680 | 1,252 |
| Puerto Rico | | | | | | | | | | |
| Before 1982 | 2.58** | 2.81** | 2.15** | | 2.25** | 2.86** | 1.89** | | 478 | 422 |
| 1982–1986 | 2.14** | 2.13** | 2.01** | | 1.83** | 2.11** | 1.79* | | 260 | 194 |
| 1987–1990 | 2.37** | 2.63** | 1.91* | | 1.52* | 1.94** | 1.25 | | 193 | 163 |
| Cuba | | | | | | | | | | |
| Before 1982 | 1.65** | 0.35** | 2.08** | * | 1.36 | 0.33 | 1.66* | | 73 | 282 |
| 1982–1986 | 1.12 | 0.06 | 1.49 | | 0.99 | 0.02 | 1.34 | | 20 | 87 |
| 1987–1990 | 2.46** | 1.04** | 2.76** | | 2.19* | 0.66 | 2.58** | | 12 | 77 |
| Dominican Republic | | | | | | | | | | |
| Before 1982 | 1.80* | 1.80* | 1.32 | | 1.48 | 1.86* | 0.96 | | 120 | 31 |
| 1982–1986 | 1.07 | 1.12 | 0.42 | | 0.82 | 1.12 | 0.24 | | 183 | 38 |
| 1987–1990 | 3.19** | 2.88** | 3.44** | | 2.24** | 2.48** | 2.40* | | 143 | 47 |
| Haiti, Jamaica, West Indies | | | | | | | | | | |
| Before 1982 | 1.04 | 0.99 | 0.73 | | 0.89 | 1.04 | 0.72 | | 477 | 36 |
| 1982–1986 | 1.34 | 1.28 | 0.03 | | 1.02 | 1.22 | 0.02 | | 465 | 11 |
| 1987–1990 | 1.11 | 1.07 | 0.03 | | 0.67 | 0.82 | 0.02 | | 348 | 14 |
| El Salvador, Guatemala | | | | | | | | | | |
| Before 1982 | 1.12 | 1.11 | 0.94 | | 0.79 | 1.01 | 0.57 | | 345 | 144 |
| 1982–1986 | 1.96** | 1.63** | 2.42** | | 1.16 | 1.21 | 1.31 | | 381 | 197 |
| 1987–1990 | 6.31** | 6.03** | 6.06** | | 2.90** | 3.57** | 2.43** | | 311 | 197 |
| U.S.-Born | Omitted | Omitted | Omitted | | Omitted | Omitted | Omitted | | 959 | 3,672 |
| Age 15 | 0.28** | 0.26** | 0.31** | | 0.33** | 0.31** | 0.37** | | 3,144 | 2,909 |
| Age 16 | 0.51** | 0.54** | 0.47** | | 0.55** | 0.58** | 0.52** | | 3,413 | 3,039 |
| Age 17 | Omitted | Omitted | Omitted | | Omitted | Omitted | Omitted | | 3,875 | 3,411 |
| Male | 0.99 | 0.99 | 1.00 | | 1.00 | 1.01 | 0.99 | | | |
| Child of Householder | | | | | 0.23** | 0.24** | 0.21** | | | |
| Married-Couple Household | | | | | 0.81** | 0.87* | 0.74** | | | |
| Central-City Residence | | | | | 1.08 | 1.12 | 1.04 | | | |
| Householder With College | | | | | 0.56** | 0.55** | 0.59** | | | |
| Poverty | | | | | 0.96 | 0.90 | 1.07 | | | |
| Constant | 0.129** | 0.102** | 0.080** | 0.156** | 0.106** | 0.107** | | | | |
| –2 Log-Likelihood | 16,636 | 8,554 | 6,820 | 13,758 | 12,381 | 7,940 | 6,271 | 12,005 | | |
| Chi-Square | 1,733 | 1,616 | 1,341 | 2,732 | 3,141 | 2,230 | 1,890 | 3,558 | | |
| N | 19,791 | 10,432 | 9,359 | 19,791 | 19,791 | 10,432 | 9,359 | 19,791 | | |

Notes: Models 1, 2, and 3 include place of birth, age, and gender as additive independent variables. Model 4 shows the statistical significance of the interaction of POB (place of birth) and race for the baseline model. Models 5, 6, and 7 include place of birth, age, gender, two family structure variables, central-city residence, householder's education, and poverty as additive independent variables. Model 8 shows the statistical significance of the interaction of POB (place of birth) with race for the model with all covariates.

^aThe foreign-born sample excludes persons born abroad of American parents.

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

Black/other Puerto Rican teenagers show higher levels of nonenrollment than do white Puerto Ricans, but a significant share of this "racial" difference 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 those of white Puerto Ricans. These racial differences among Puerto Rican youths, however, do not reach statistical significance.

Because the majority of Cuban immigrants are white and almost all Dominican immigrants are black, it is very difficult to examine the role of race for these two immigrant streams. The only statistically significant racial difference in Table 5, however, is found between black/other and white Cuban immigrants who arrived as very young children (before 1982); this difference disappears when all the covariates are included. Levels of high school nonenrollment appear to be much lower among black Cuban youths than among white Cubans in the same entry cohort, but this finding must be qualified because of the very small number of black Cuban youths.

The most significant finding is that Cuban and Dominican youths (along with Puerto Rican youths) generally are at much higher risk of dropping out of high school than are native-born youths; this problem does not disappear with longer residence in the United States. Among Afro-Caribbeans from Haiti, Jamaica, and the West Indies, rates of educational enrollment are equal to that of the native-born or better (although long-term Haitian immigrants do not fit this characterization; see Table 2).

CONCLUSIONS

A growing number of new immigrant populations in the United States are disadvantaged on many of the standard measures of family socioeconomic status and social resources. In addition, some foreign-born adolescents (and probably some second-generation national-origin groups) are falling behind educationally. Not all economically disadvantaged immigrant groups, however, experience comparable educational problems. Indeed, most immigrant children are doing fairly well. With 1990 Census data I have examined patterns of school enrollment for foreign-born youths age 15 to 17 across 33 national-origin (place-of-birth) categories. The overwhelming majority of high-school-age immigrant youths are as likely as their native-born peers to be enrolled in school. Several immigrant populations experience above-average levels of school attrition, but they exhibit complex patterns that cross-cut place of origin, age at arrival, and the familial and socioeconomic context of settlement.

The most serious problem of educational nonenrollment occurs among Mexican teenagers, especially those who migrate to the United States after starting school in Mexico. The educational situation of Mexican American adolescents is significant because they account for more than one-quarter of all immigrants, and because the difference 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, nor are almost one-third of those who arrived in the mid-1980s. These figures can be contrasted to the 7% of native-born youths at comparable ages who are not in school. Given the increasingly close connection between education and wages in the United States, this educational deficit is likely to have long-term implications for Mexican adolescent immigrants.

For Mexican immigrants who arrived in the United States at a younger age, perhaps before entry into formal schooling, attrition during the high school years is modest: a few percentage points above the level of the native-born population. The Mexican pattern (if not the actual level) is shared by several other immigrant populations, notably those from Central America (especially El Salvador and Guatemala) and South America and from the former Soviet Union. For these populations, recent immigrants who began their schooling in their home countries have above-average nonenrollment rates after migrating to the United States. Immigrants from these countries who arrived at a younger age (before 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, acquisition of English-language fluency, and other skills that enhance social mobility.

Two additional patterns of enrollment among immigrant youths require different interpretations. First, most immigrant populations show 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 than native-born Americans to be enrolled in high school. In most cases, the differences are small in absolute terms and are not statistically significant (except in a few populations). The evidence of an "Asian advantage" in enrollment is reinforced by the finding that as the effects of central-city residence and families' lower socioeconomic status are held constant, the odds that Asian American youths will be enrolled in high school increase in relation to native-born teenagers. This finding of relative educational success in 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 toward children in the household.

The other finding emerging from this study is that below-average rates of high school enrollment in some immigrant populations do not change with longer duration in the country. This pattern is evident 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. The pattern is mostly likely among groups concentrated in central cities

and attending schools with a demoralized educational climate. In this setting, longer duration of residence in the United 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 critical in the segmented-assimilation interpretation. African Americans have long encountered discrimination and prejudice, which have been barriers to socioeconomic mobility. The transference of whites' prejudicial attitudes toward blacks to immigrants of color is considered to be an additional problem that may limit the new immigrants' educational and socioeconomic aspirations. Although discrimination possibly may serve as a spur for renewed determination to succeed, supportive family and community institutions are required to counter the negative experiences from the broader society. Depending on their identification with minority groups in the United States, many new immigrants simply may 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 United States. Afro-Caribbeans, however—the group most likely to be considered African Americans in the United States—do not show an educational enrollment deficit. Moreover, color (as measured by the census race variable) was associated only weakly with lower educational enrollment in the “at-risk” immigrant populations. Segmented-assimilation theory does not predict that phenotype will lead inevitably to lower levels of educational success, only that it may increase 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, this study provides strong evidence of the familial and socioeconomic characteristics that influence immigrant teenagers' educational enrollment. A significant share of some immigrant groups' higher nonenrollment rates can be explained by poorly educated parents, the absence of parents, and inner-city residence. These factors also have direct effects on teenage educational enrollment, independent of country of origin. Strong families and communities sometimes can compensate for an adverse environment, but many immigrant teenagers have few familial resources. In such settings, immigrant youths (as well as nonimmigrant youths) need additional support in order to stay in high school and to have a chance to achieve the American dream.

REFERENCES

- Alba, R.D. 1990. *Ethnic Identity: The Transformation of White America*. New Haven: Yale University Press.
- Alba, R.D. and R.M. Golden. 1986. “Patterns of Ethnic Marriage in the United States.” *Social Forces* 65:202–23.
- Alba, R. and V. Nee. 1999. “Rethinking Assimilation Theory for a New Era of Immigration.” Pp. 137–60 in *The Handbook of International Migration: The American Experience*, edited by C. Hirschman, J. DeWind, and P. Kasinitz. New York: Russell Sage Foundation.
- Boyd, M. and E.M. Grieco. 1998. “Triumphant Transitions: Socioeconomic Achievements of the Second Generation.” *International Migration Review* 32:853–76.
- Caplan, N., M.H. Choy, and J.K. Whitmore. 1991. *Children of the Boat People: A Study of Educational Success*. Ann Arbor: University of Michigan Press.
- Duncan, B. and O.D. Duncan. 1968. “Minorities and the Process of Stratification.” *American Sociological Review* 33:356–64.
- Farley, R. 1999. “A New Look at Second Generation Immigrants.” Presented at the annual meetings of the Population Association of America, March 25, New York City.
- Fejgin, N. 1995. “Factors Contributing to the Excellence of American Jewish and Asian Students.” *Sociology of Education* 68:18–30.
- Fernandez, R. and R. Paulsen. 1989. “Dropping Out Among Hispanic Youth.” *Social Science Research* 18:21–52.
- Fordham, S. 1996. *Blacked Out: Dilemmas of Race, Identity, and Success at Capital High*. Chicago: University of Chicago Press.
- Gans, H.J. 1992. “Second-Generation Decline: Scenarios for the Economic and Ethnic Futures of the Post-1965 American Immigrants.” *Ethnic and Racial Studies* 15:173–92.
- Gibson, M.A. 1988. *Accommodation Without Assimilation: Sikh Immigrants in an American High School*. Ithaca: Cornell University Press.
- Gibson, M.A. and J.U. Ogbu. 1991. *Minority Status and Schooling: A Comparative Study of Immigrant and Involuntary Minorities*. New York: Garland.
- Glazer, N. and D.P. Moynihan. 1970. *Beyond the Melting Pot*. 2nd ed. Cambridge: MIT Press.
- Gordon, M. 1964. *Assimilation in American Life*. New York: Oxford University Press.
- Hirschman, C. 1983. “The Melting Pot Reconsidered.” *Annual Review of Sociology* 9:397–423.
- . 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 A. Portes. New York: Russell Sage Foundation.
- Jacobs, J.A. and M.E. Greene. 1994. “Race and Ethnicity, Social Class and Schooling.” Pp. 209–56 in *After Ellis Island: Newcomers and Natives in the 1910 Census*, edited by S. Cotts Watkins. New York: Russell Sage Foundation.
- Kao, G. and M. Tienda. 1995. “Optimism and Achievement: The Educational Performance of Immigrant Youth.” *Social Science Quarterly* 76:1–19.
- Landale, N.S., R.S. Oropesa, and D. Llanes. 1998. “Schooling, Work, and Idleness Among Mexican and Non-Latino White Adolescents.” *Social Science Research* 27:457–80.
- Liebertson, S. 1980. *A Piece of the Pie: Black and White Immigrants Since 1880*. Berkeley: University of California Press.
- Liebertson, S. and M. Waters. 1988. *From Many Strands: Ethnic and Racial Groups in Contemporary America*. New York: Russell Sage Foundation.
- Massey, D. 1995. “The New Immigration and Ethnicity in the

- United States." *Population and Development Review* 21:631–52.
- Matute-Bianchi, M.E. 1986. "Ethnic Identities and Patterns of School Success and Failure Among Mexican-Descent and Japanese-American Students in a California High School: An Ethnographic Analysis." *American Journal of Education* 95:233–55.
- Neidert, L.J. and R. Farley. 1985. "Assimilation in the United States: An Analysis of Ethnic and Generational Differences in Status and Achievement." *American Sociological Review* 50:840–50.
- Park, R.E. and E. Burgess. 1969. *Introduction to the Science of Sociology*. Student ed., abridged by M. Janowitz. Chicago: University of Chicago Press.
- Portes, A., ed. 1996. *The New Second Generation*. New York: Russell Sage Foundation.
- Portes, A. and R.G. Rumbaut. 1996. *Immigrant America: A Portrait*. 2nd ed. Berkeley: University of California Press.
- Portes, A. and M. Zhou. 1993. "The New Second Generation: Segmented Assimilation and Its Variants." *Annals of the American Political and Social Sciences* 530(November):74–96.
- Rodriguez, C.E. 1992. "Race, Culture, and Latino 'Otherness' in the 1980 Census." *Social Science Quarterly* 73:930–37.
- Rong, X.L. and L. Grant. 1992. "Ethnicity, Generation, and School Attainment of Asians, Hispanics, and Non-Hispanic Whites." *Sociological Quarterly* 33:625–36.
- Schneider, B. and Y. Lee. 1990. "A Model for Academic Success: The School and Home Environment of East Asian Students." *Anthropology and Education Quarterly* 21:358–77.
- Smith, J.P. and B. Edmonston. 1997. *The New Americans: Economic, Demographic and Fiscal Effects of Immigration*. Washington, DC: National Academy Press.
- Sue, S. and S. Okazaki. 1990. "Asian American Educational Achievement: A Phenomenon in Search of an Explanation." *American Psychologist* 45:913–20.
- Stults, B. 1999. *PUMATYPE.POR* [MRDF]. Department of Sociology, SUNY Albany.
- Suarez-Orozco, C. and M. Suarez-Orozco. 1995. *Transformations: Immigration, Family Life, and Achievement Motivation Among Latino Adolescents*. Stanford: Stanford University Press.
- U.S. Bureau of the Census. 1992a. Census of Population and Housing, 1990: *Public Use Microdata Samples* [MRDF]. Washington, DC: U.S. Bureau of the Census [producer and distributor].
- . 1992b. Census of Population and Housing, 1990: *Public Use Microdata Sample Technical Documentation*. Washington, DC: U.S. Bureau of the Census.
- U.S. Department of Justice, Immigration and Naturalization Service. 1965–1996. *Statistical Yearbook of the Immigration and Naturalization Service, 1965–1996 (Annual Report before 1978)*. Washington, DC: U.S. Government Printing Office.
- Waters, M. 1999. *Black Identities: West Indian Immigrant Dreams and American Realities*. New York: Russell Sage Foundation and Harvard University Press.
- Wojtkiewicz, R.A. and K.M. Donato. 1995. "Hispanic Educational Attainment: The Effects of Family Background and Nativity." *Social Forces* 74:559–74.
- Yancey, W.L., E.P. Erickson, and R.N. Juliani. 1976. "Emergent Ethnicity: A Review and Reformulation." *American Sociological Review* 41:391–403.
- Zhou, M. 1997. "Growing Up American: The Challenge Confronting Immigrant Children and Children of Immigrants." *Annual Review of Sociology* 23:63–95.
- Zhou, M. and C.L. Bankston III. 1998. *Growing Up American: How Vietnamese Children Adapt to Life in the United States*. New York: Russell Sage Foundation.
- Zsembik, B.A. and D. Llanes. 1996. "Generational Differences in Educational Attainment Among Mexican Americans." *Social Science Quarterly* 77:363–74.