ARE IMMIGRANT YOUTH FARING BETTER IN U.S. SCHOOLS?

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In spite of the growing numbers and geographic dispersion of foreign-born children, the school outcomes of foreign-born teens improved during the 1990s. Analysis of decennial Census data reveals that fewer immigrant youth dropped out of school and their English language proficiency improved. Some of the improvement is due to compositional change in the foreign-born teen population. Levels of parental education increased over the decade. Poverty among foreign-born adolescents declined. Other youth background characteristics did not change in a favorable direction. Multivariate analysis reveals that there was a large decline in the likelihood of immigrant teens dropping out of school above and beyond the demographic changes over the decade. For example, the likelihood that a Mexican-born teen educated in U.S. schools drops out of school declined by an estimated 43 percent over the 1990s. There is little evidence, however, that U.S. schools have improved in their English language instruction over the decade.

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Introduction

During the 1990s more immigrants came to the U.S. than in any previous decade. Demographers estimate that 16 million immigrants arrived in the 1990s (Passel, 2004). The flow at the end of the decade was more robust than at the start of the 1990s, with at least 1.5 million immigrants arriving per year at the peak (Passel and Suro, 2005). As of 2000, over 31 million foreign-born persons resided in the U.S., about 11 percent of the population. Some of the new arrivals were children. The school age immigrant population increased by 1 million over the 1990s and by 2000 6 percent of the nation's school-age children were born in another country. A growing literature examines the educational outcomes of foreign-born youth, as well as the impact of immigration on the educational outcomes of native children. This paper examines the changes over the 1990s in some fundamental educational outcomes of foreign-born high school age youth and reveals that there has been some marked improvement in their educational outcomes. Other indicators show that our nation's schools have made little progress in educating immigrant youth.

The task of educating the increased numbers of foreign-born children during the 1990s occurred in the context of growing demands on our nation's schools. In the wake of the baby-boom, total high school enrollments ebbed during the 1980s. High school enrollments rose during the 1990s as the children of the baby-boomers matured, and enrollments surpassed the previous 1977 enrollment peak in 1997 (U.S. Census Bureau, 2001). So the growth in the number of foreign-born children during the 1990s was accompanied by growing numbers of native-born children as well.

Many communities experienced the challenges and opportunities of educating foreign-born youth for the first time in the 1990s. Immigration was not only at an all-time high level during the decade, it was also more geographically dispersed than during the 1980s. The foreign-born population more than doubled in 19 states during the 1990s, and these high growth states do not include the six large traditional receiving states (Capps, Fix, and Passel, 2002). The six large traditional receiving states educated 67 percent of all foreign-born high school age youth in 2000, down from 77 percent in 1990. Numerous states received large numbers of newly arrived immigrants and began the task

of developing the educational infrastructure and resources to meet the needs of these newly arrived children. Given the volume and new character of immigration, we might not expect the degree of success of foreign-born youth in U.S. schools to remain unaltered.

In spite of the fact that foreign-born youth tend to have disadvantaged families and have experienced the dislocation of an international move, generally they often display a high degree of resiliency and success relative to native-born children. The major assessment of the adjustment of immigrant children concluded that "Along a number of important dimensions, children and adolescents in immigrant families appear to experience better health and adjustment than do children and youth in native-born families…(Hernandez, 1999)."

The evidence on educational outcomes suggests that foreign-born teens, on average, have less success than their native-born peers. Numerous studies have examined the high school dropout rates of foreign-born adolescents. Studies using household-based surveys uniformly show that nationally, on average, foreign-born youth are less likely to be in school or have finished high school than native-born youth (Wojtkiewicz and Donato, 1995; Vernez and Abrahamse, 1996; Van Hook and Fix, 2000). This assertion is based on the uncontrolled school dropout rate and does not adjust for the teen's background characteristics. The average immigrant teen dropout rate conceals substantial diversity by country of origin. Dropout rates of foreign-born youth from many Asian countries and from other countries outside Mexico and Central America tend to be modest and often below the rate of native-born teens (Hirschman, 2001). Studies based on longitudinal samples of students, rather than the entire population of youth, corroborate the household-based studies (White and Kaufman, 1997; Perreira, Harris, and Lee, 2005).[1]

Recent studies of the educational achievement of foreign-born students do not yield consistent evidence on their performance on standardized tests. Among 1990 high

[1] Using the recent National Longitudinal Study of Adolescent Health, Perreira, Harris, and Lee (2005) report that the rate at which students graduate high school with a regular high school diploma varies only slightly by generation. They also find that native-born students are significantly more likely to finish high school by obtaining a General Educational Development (GED) credential. By inference therefore, Perreira, Harris, and Lee (2005) also find that immigrant students are less likely to finish high school by graduating with a diploma or obtaining a GED, and hence are more likely to have "dropped out" of school.

school sophomores, Glick and White (2003) find that immigrant students that arrived early in childhood score better than native-born students of native parentage on mathematics tests and no worse on reading tests. Sweetman (2002) examines the test scores performance of 13 year-olds in the Third International Math and Science Survey (TIMSS) and finds that immigrants score below native-born children in mathematics and substantially below natives in science, with the gaps being more pronounced for males than females.

To date there has been little careful analysis of the nature of change over time in the educational outcomes of foreign-born children. Urdan and Garvey (2004) mention in passing that school participation rates of foreign-born teens residing in California increased over the 1990s, but analyzing the change over the decade is not the focus of their analysis.

This investigation carefully examines the change over the decade in the school outcomes of foreign-born high school age youth. After presenting the general trends for youth from a large array of countries of origin, we examine the national changes in the demographic and family background of foreign-born teens. The nature of foreign-born teens clearly changed over the decade, reflecting both shifts in international migration flows and improvements in the economic well-being of immigrant households as a result of the robust labor market of the late 1990s. In order to distill whether U.S. schools are more effectively educating foreign-born teens, the key analyses control for the changing background characteristics of foreign-born youth that impact on their educational outcomes. Admittedly, the analysis does not directly measure the inputs that schools are directly devoting to the education of immigrant youth. But the study does carefully disentangle the role of changes in national origin and other demographic characteristics in improving the educational outcomes of foreign-born youth from the secular improvement over the decade.

Since the majority of immigrants arrive in the U.S. during adulthood, the outcomes and adjustment of foreign-born children is only part of the much larger assessment of the contributions and adjustment of immigrants in our society. Nonetheless, some of the more contentious policy debates surrounding immigrant adjustment involve the educational and language practices occurring in our schools. A

reasoned understanding of the success and challenges facing foreign-born children in American schools will assist educational decisionmakers to better allocate the limited school resources devoted to these young newcomers.

Data and Definitions

The analysis uses all the foreign-born 15-to-17 year-old respondents in the 1990 and 2000 Integrated Public Use Micro Samples of the Decennial Census. Youth born in Puerto Rico are included in the analysis. There are 31,313 immigrant youth and 46,718 immigrant youth in the 1990 and 2000 samples, respectively.[2] The descriptive analyses use the appropriate sample weights. Youth residing in institutions are included, however, some independent variables (such as poverty status) are not defined for institutionalized youth. Analyses including such variables omit youth in institutions.

The narrow 15-to-17 year-old age span is utilized in order to more closely gauge the outcomes of foreign-born youth that are educated in U.S. schools as opposed to schools in their country of origin. Some recently arrived immigrant youth are never enrolled in U.S. schools. Estimates from a Current Population Survey special supplement reveal that nearly 30 percent of foreign-born youth between the ages of 16 to 24 were never enrolled in U.S. schools (NCES, 1997). We can not identify such foreign-born youth in regular Census data. However, by limiting the age range to secondary school age youth we can minimize the weight of never enrolled youth in the tabulations and more closely estimate the performance of foreign-born youth educated in U.S. elementary and secondary schools.

Two secondary school outcomes are analyzed. The first is the traditional status dropout rate, or the fraction of youth that are not enrolled in school at the date of interview and have not completed high school. The second is the limited English proficiency rate or the fraction of youth that do not speak only English at home and self-report speaking English "well," "not well," or "not at all." Although this measure is solely based on self-reported English speaking abilities, Van Hook and Fix (2000) report that it closely proxies school-based survey estimates of LEP status. A teenager's English

[2] Following convention, youth that are born abroad of American parents are not considered foreign-born.

speaking abilities reflect his familial linguistic background as well as schooling. Nonetheless, elementary and secondary schools devote significant resources to English language acquisition and it seems entirely *apropos* to interpret limited English speaking as a school outcome for 15-to-17 year-old youth.

The Improvement in Adolescent Foreign-born Basic School Outcomes

High school dropout rates for American youth *in toto* have been declining for the past 30 years (NCES, 2004a). Between 1990 and 2000 the status high school dropout rate for 16-to-19 year-old youth declined for most racial/ethnic groups (U.S. Census Bureau, 2003). School dropout rates for foreign-born youth also declined during the 1990s (Table 1). For 15-to-17 year-old youth the status dropout rate fell from 12.4 percent in 1990 to 11.6 percent in 2000.

Educational outcomes for foreign-born youth are often disaggregated by time of arrival in the U.S. Early childhood arrivals received all or nearly all of their schooling in the U.S. Thus, foreign-born youth that arrived early in childhood all had experienced U.S. schooling to some degree and we know that their outcomes largely reflect their experience in U.S. schools. As discussed above, some recently arrived youth never have enrolled in U.S. schools. Outcomes for recently arrived youth thus are not a pristine reflection of recently arrived youth's experience in U.S. schools and are not as an exact indicator of the performance of U.S. schools.

Following Hirschman (2001), I define early childhood arrivals as youth that arrived more than eight years before the Census enumeration.[3] Early childhood arrivals arrived no later than age 8 or before third grade. The dropout rate for early childhood arrivals declined by nearly 3 percentage points, similar to the measured decline for native-born youth. The dropout rate for recently arrived youth remained unchanged at 16.3 percent from 1990 to 2000.

[3] The 2000 Census provides the exact year in which the person first entered the United States. The 1990 Census provides the year of entry only in intervals. So for the 1990 Census the person's exact age at arrival can not be imputed. For this reason, recency of arrival is defined in terms of date of entry to the United States rather than an exact age at arrival.

Complementing the improving school enrollment rate of foreign-born youth, the English speaking abilities of immigrant youth increased as well over the 1990s. The percent of early childhood arrivals that had limited English speaking abilities fell from 21.3 percent to 20.4 percent (Table 1). Analysis reported below documents that this is a statistically significant decline in the limited English speaking rate.

Foreign born youths' school enrollment propensities vary substantially by country of origin (Hirschman, 2001). Generally, youth from Mexico and some Central American countries are much more likely to be out of school than other foreign-born youth. There is also considerable diversity in the English speaking skills of foreign-born teens. Unlike Van Hook and Fix (2000), however, the 2000 Census data does not reveal a marked Asian advantage among foreign-born teens (Table 2). Youth from some Asian countries have nearly as high limited English speaking rates as their counterparts from Mexico and some Central American countries.

The overall improvement in the school outcomes of foreign-born teens from 1990 to 2000 is not due to change in the country of origin composition over the decade. Table 2 reports school outcomes for 39 countries or regions of origin. In the majority of cases school outcomes improved for youth from specific countries of origin. Consider the numerically most important case, youth of Mexican origin. Whether we examine outcomes among early childhood arrivals or recent arrivals, unambiguously school dropout rates and limited English speaking rates declined among Mexican-born youth.

Standard shift-share analysis reveals that the change in the country of origin composition from 1990 to 2000 tended to increase the aggregate school dropout rate and limited English speaking rate. The aggregate school outcome for any period is simply the weighted average of the outcomes from each country of origin:

$$\overline{S}_t = \sum_{i=1}^{N} POP_t^i \times S_t^i$$

where S_t^i is the rate for the ith country of origin and POP_t^i is the share of foreign born youth that originate from that country. To evaluate the impact of change in the national origin composition of immigrant youth, shift share analysis calculates the school outcome keeping the individual country rates constant and alters the weight put on that rate. Evaluating the 1990 rates using the 2000 population shares, the school dropout rate and

the limited English speaking rate are 13.4 percent and 39.6 percent, respectively. Since these are above the 1990 rates reported in Table 1, the change in the composition of the stock of foreign-born youth from 1990 to 2000 tended to increase the *aggregate* rates. The improvements in school outcomes over the decade were not due to compositional change in the countries of origin of foreign-born youth.

The Background of Foreign-born Youth

The school outcomes of foreign-born youth are influenced by their family and demographic background (Hirschman, 2001; Kao, 1999). Examination of these characteristics reveals that there were some modest changes in family background that could have contributed to the decrease in foreign-born dropping out and limited English speaking.

Recent Census Bureau tabulations reveal a significant improvement in the parental education levels of foreign-born children residing with a parent (Johnson, *et. al.*, 2005). The education levels of the head of the households in which foreign-born adolescents reside significantly increased (Table 3). In 1990 a majority of the household heads had not finished high school. By 2000 less than a majority had not finished high school. Research shows that parental education is a "very powerful predictor of teenagers staying in school (Hirschman, 2001)."

Child poverty reached a historical low in 1999 and 2000 (Federal Interagency Forum on Child and Family Statistics, 2003). Poverty among foreign-born children also fell during the 1990s (Fix and Passel, 2003). Poverty among foreign-born teens fell only modestly, declining from 30.6 percent in 1990 to 29.7 percent in 2000 (Table 3).

Changes in other characteristics of foreign-born teens did not move in a favorable direction. A larger proportion of teens were recently arrived in the U.S. Changes in family structure also moved in an adverse direction. For all U.S. children *in toto* (including native-born), the proportion living with two married parents fell from 1990 to 2000. This decline is not apparent among foreign-born 15-to-17 year-olds. However, the proportion of foreign-born 15-to-17 year-olds residing with no parents in the household did modestly increase from 17.4 percent to 18.8 percent. This is likely related to the

increase in recently arrived foreign-born youth over the decade, as recently arrived youth are much more likely to not be residing with any parents in the households than early childhood arrivals.

The number of siblings that foreign-born teens lived with significantly declined during the 1990s. For example, the proportion of foreign-born teens residing with 3 or more siblings fell from 31.5 percent in 1990 to 24.8 percent in 2000. This change is, again, likely related to the increase in the proportion of recently arrived teens, as recently arrived teens are much more likely to reside independently of immediate family. The analysis below reveals that the number of siblings does not have unambiguous effects on immigrant school outcomes, in contrast to the wider social science literature that generally finds that the number of siblings is negatively related to children's educational attainments (Haveman and Wolfe, 1995; Hernandez, 1999; Perreira, Harris, and Lee, 2005).

Finally, although we know that a greater proportion of immigrant teens lived abroad eight years before the Census date (i.e., are recent arrivals), the Census has additional evidence on place of residence five years before the Census. Although this is not a complete migration history, this provides at least an inkling of the residential mobility patterns of youth. Prior research indicates that residential moves are detrimental to youth's educational outcomes (Warren, 1996). There does not appear to be much change in the mobility of foreign-born teens at the five year before the Census mark from 1990 to 2000. About one-third of foreign-born teens resided at the same address five years earlier in both 1990 and 2000.

Multivariate Analysis of Change in Foreign-born Youth's School Outcomes

Using multivariate analysis we can determine how much of the improvement in immigrant schooling outcomes reflects changes in their background family and demographic characteristics. Table 4 reports the results of logistic regression analysis of dropping out of school. Table 5 reports the parallel results of analysis of limited English capability. Since not all recently arrived youth were enrolled in U.S. schools, separate models are estimated for early childhood arrivals and recent arrivals. The tables report

the odds ratios. An odds ratio of 1.0 indicates that an immigrant youth with a particular characteristic is no more likely than to be out of school or have limited English speaking skills than an immigrant with the omitted reference characteristic. For example, the odds ratio of 1.734 on age 16 in col. (1) of Table 4 indicates that 16-year-old early childhood arrivals are 73 percent more likely to be out of school than 15-year-old early childhood arrivals (age 15 being the omitted reference category for age).

The key results of interest are in the first row, the odds ratio on the Census 2000 dummy variable (the omitted category being an observation from the 1990 Census). The odds ratios on the Census 2000 dummy variable indicate the nature of the change in the school outcome after controlling for other factors.

Columns (1) and (5) only control for the youth's age and gender and Census year and replicate the results we observed in Table 1. In the baseline model of Table 4 there is a statistically significant drop in early childhood arrivals' propensity to be out of school from 1990 to 2000. Early arrivals in 2000 are 37 percent less likely to be out school than their counterparts in 1990. The school enrollment status of recent arrivals is unchanged from 1990 to 2000. For both groups of immigrant youth there appears to be a modest decline in limited English speaking skills in the raw data (Table 5).

As noted above, the countries of origin of adolescents shifted over the decade to countries that tend to have higher dropout rates and limited English speaking rates. This shift obscures some of the improvement in school outcomes among foreign-born teens from 1990 to 2000. Columns (2) and (6) of Tables 4 and 5 control for the foreign-born youths' place of birth. Accounting for the youths' country of origin does not explain the decline in the immigrant dropout rate from 1990 to 2000. Country of origin does play some role in explaining the improvement in English speaking skills. Controlling for place of birth, there no longer appears to be a statistically significant improvement in the English skills of early childhood arrivals.

As noted in the introduction, foreign-born youth were not educated in the same states in 2000 compared to 1990. Columns (3) and (7) of the tables show the model including controls for state of residence. Geographic dispersion does not explain any of the decline in the likelihood of being out of school from 1990 to 2000.

Columns (4) and (8) present the results of the full model specification that takes account of all the changes in the background demographic and economic characteristics of foreign-born teens identified in the previous section. Accounting for the changes in the characteristics of foreign-born teens over the decade renders ambiguous results as to how immigrant children are faring in U.S. schools. I emphasize the results on early childhood arrivals since these youth indubitably are educated in U.S. schools. On the one hand, early childhood arrivals are clearly more likely to stay in school in 2000 in comparison to 1990. Column (4)'s results indicate that early childhood arrivals are 44 percent less likely to be school dropouts in 2000 as compared to 1990. That is a very large decline in the dropout rate. Unfortunately, the results on English speaking proficiency indicate that foreign-born teens are not less likely to have limited English speaking skills. The English language skills of U.S. educated foreign-born teens do not appear to have improved over the decade above and beyond the contribution of compositional change.

The school outcomes of Mexican-born youth are of particular concern. Over a third of foreign-born teens are from Mexico and, as Hirschman (2001) remarks, other countries of origin individually only contribute a small share of foreign-born youth. Furthermore, youth from Mexico, on average, have the most elevated, or nearly most elevated, school dropout rates and limited English speaking rates of foreign-born teens. In 2000, Mexican-born teens account for nearly three quarters of foreign-born teen school dropouts. Tables 6 and 7 reports the results of a similar logistic regression analysis confined to Mexican-born teens. The results are quite similar to the results for the full sample of foreign-born youth. Mexican born youth that arrived early in childhood are estimated to be 43 percent less likely to be out of school in 2000 compared to 1990 (column (3)), but their limited English speaking skills seem unchanged over the decade.

Adjusted Changes in School Dropping Out Among Foreign-born and Native Youth

Foreign-born teens are much more likely to be in school in 2000 than 1990 and this does not simply reflect changes in their background characteristics. Table 1 suggests, however, that native-born youth are also much more likely to be in school in

2000 than 1990. There are reasons to surmise that the school outcomes of foreign-born teens would differ from those of native-born teens. Foreign-born teens do not attend the same schools as native-born teens. In 2000, 67 percent of foreign-born teens resided in the six large immigrant receiving states. In comparison, 36 percent of native-born teens were educated in these states. Schools in the large immigrant receiving states tend to have different characteristics than schools elsewhere in the United States. Furthermore, state compulsory schooling laws presumably impact the propensity to drop out of school. These laws vary across states.

Table 8 reports the salient results of a logistic regression analysis of the likelihood of not being enrolled in school that includes over 1 million native-born 15-to-17 year-olds from the 1990 and 2000 Census micro samples. Table 8 reports the results of full models that include all of the background covariates. In column (1)'s model specification the year effect is not allowed to vary between native-born and foreign-born teens. *Ceteris paribus,* the likelihood of a 15-to-17 year-old dropping out of school declined by 42 percent between 1990 and 2000. In column (2) the Census 2000 year effect is interacted with a dummy variable for foreign-born status. The interaction term is statistically significant. Foreign-born youth did not experience the same decline in the likelihood of dropping out of school as native-born youth over the decade. Foreign-born teens experienced a smaller improvement than natives. However, this is not an accurate reflection of foreign-born teens experience in the U.S. school system. Many of these foreign-born teens were educated abroad and some of them were never enrolled in U.S. schools. Column (3) reports the results of estimating the same specification as reported in column (2) but omits the 43,309 recently arrived foreign-born 15-to-17 year-olds from the sample. On the basis of foreign-born youth that have a high degree of exposure to U.S. schools, namely early childhood arrivals, column (3) shows that the foreign-born interaction term is statistically insignificant. So, foreign-born teens that are educated in U.S. schools had a very similar improvement in their enrollment outcome over the decade as native-born youth.

Summary and Conclusions

Foreign-born youth are a rising percentage of American youth. Few studies have carefully examined the trends in immigrant youth outcomes. The major activity of youth is schooling and this study has examined recent national trends in some basic schooling outcomes of foreign-born youth of high school age. Discussions of the education of foreign-born youth often emphasize the inordinately high dropout rates of foreign-born youth. On this criteria there are grounds for optimism. The foreign-born high school dropout rate declined during the 1980s (Vernez and Abrahamse, 1996). Progress continued during the 1990s. Dropout rates fell markedly for all U.S. teenagers during the 1990s and foreign-born teenagers were no exception.

Though immigrant teenagers are more likely to stay in school, changes in educational programs and practices may not have contributed to the improved school enrollment rates. Parental educational levels of foreign-born teens improved over the decade. Although it is not precisely clear why youth with better-educated parents are more likely to stay in school, they are, and foreign-born youth are no exception. The improvement in parental education levels would be expected to lower the foreign-born dropout rate. After controlling for this and other compositional changes in our foreign-born youth population, the evidence suggests that schools may have played a role in the decline in the foreign-born dropout rate. The likelihood of an early arrived immigrant not being in school fell by 44 percent from 1990 to 2000, after adjusting for background factors influencing school attrition.

Much of the foreign-born school dropout problem is concentrated among recently arrived immigrant youth. In 2000, more than 80 percent of foreign-born school dropouts are recently arrived youth. Recently arrived youth are also more likely to be in school in 2000 than in 1990, but it is even more difficult to infer whether U.S. schools contributed to this improvement than in the case of early childhood arrivals. Recently arrived youth received some education abroad, and hence the observed improvements in school enrollment propensities might be due to improved schools abroad rather than U.S. schools.

Schooling is of value for the skills it produces. The English language proficiencies of foreign-born youth have marginally improved over the 1990s, but this appears to be due entirely to compositional change. Furthermore, the fraction of foreign-

born teens lacking English speaking proficiency in high school continues to be high. Among early childhood arrivals, one out of five teens has limited English speaking skills. These are youth that are almost entirely U.S.-educated. This skill deficiency is not limited to youth from Latin America. Significant percentages of Asian-born youth lack English proficiency. This basic skill deficiency will, on average, diminish these youths' future educational and labor market prospects. Young adults with limited English speaking abilities are less likely to enroll in postsecondary education and complete postsecondary degrees. They are also more likely to be employed in traditionally low-wage occupations (NCES, 2004b). Recent evidence indicates that they are paid much less in adulthood, but much of that may be attributable to their lower educational attainment (Bleakley and Chin, 2003).

In sum, more immigrant teens seem to be staying in school. There is no evidence, however, that U.S. schools have increased their success in developing the English abilities of foreign-born children.

Table 1. School Outcomes for 15-to-17 Year-old Youth, by Nativity (in percent)

	Dropout		Limited English Speaking	
nativity	1990	2000	1990	2000
Foreign-born youth[a]	12.4	11.6	39.1	39.0
early childhood immigrant[b]	7.8	5.1	21.3	20.4
recent immigrant	16.3	16.3	54.2	52.2
U.S. born	6.5	3.5	2.9	3.1

Source: 1990 and 2000 Decennial Census 5% Integrated Public Use Sample (IPUMS)

Notes: [a]Foreign-born youth includes youth born in Puerto Rico. [b]Early childhood immigrants arrived more than 8 years before the Census enumeration. Recent immigrants arrived within 8 years of the Census.

Table 2. School Dropout and Limited English Rates of 15-to-17 Year-olds, by Place of Birth (in percent)

	early childhood immigrant				recent arrival			
	school dropout		limited English		school dropout		limited English	
Place of birth	1990	2000	1990	2000	1990	2000	1990	2000
Canada	3.3	2.8	4.5	2.5	7.7	4.7	5.1	4.5
Mexico	11.1	8.1	29.6	29.0	36.4	32.6	74.5	70.2
El Salvador	7.5	5.3	22.6	25.1	20.6	23.9	62.7	68.3
Guatemala	5.5	6.5	18.1	17.6	23.5	26.9	68.6	66.0
Nicaragua	4.4	4.0	13.1	15.2	8.5	8.1	66.9	56.3
other Central America[a]	5.2	6.9	12.4	17.4	9.7	16.4	51.2	53.6
Cuba	9.1	11.0	16.2	16.0	11.0	4.9	56.8	50.0
Dominican Republic	11.1	4.7	26.5	24.6	9.8	5.5	59.7	47.8
Haiti	12.3	2.8	26.0	21.0	5.9	6.8	53.0	48.9
Jamaica	2.3	1.8	2.4	3.7	7.5	3.9	1.7	2.5
Puerto Rico	14.9	6.5	21.4	17.9	11.2	12.9	46.2	43.9
other Caribbean[b]	7.2	3.2	3.7	3.5	5.1	1.3	4.7	2.8
Colombia	6.4	2.2	13.5	10.9	7.0	4.4	47.6	54.8
Ecuador	3.2	4.8	15.1	18.0	12.3	15.2	49.4	56.8
Guyana/British Guiana	5.2	0.5	0.7	3.2	12.0	0.0	1.9	6.1
Peru	1.8	4.1	26.4	16.0	3.7	4.7	48.1	46.7
other South America[c]	4.5	1.8	9.6	5.9	7.4	4.2	42.7	42.5
England	3.2	5.1	1.6	5.7	5.9	1.9	2.2	3.3
Germany	15.8	6.1	9.7	4.1	1.9	3.0	14.4	20.1
Poland	6.0	0.9	17.4	5.3	7.1	2.5	42.0	30.7
Russia	5.0	3.2	14.4	13.9	7.4	3.0	69.4	29.9
other Europe[d]	8.4	3.0	11.3	8.3	5.8	4.3	26.0	32.8
China	1.9	2.5	32.0	24.0	5.9	5.3	74.8	59.7
Hong Kong	3.9	3.1	21.9	20.6	3.3	0.0	55.1	58.7
Taiwan	1.3	0.9	11.7	11.4	3.0	1.6	43.6	53.0
Japan	0.0	0.4	26.6	18.0	4.3	2.0	61.7	55.5
Korea	2.8	0.9	10.7	7.5	4.7	3.2	52.2	51.4
Laos	5.1	1.9	35.1	39.4	7.7	3.7	72.5	66.9
Phillipines	4.8	1.1	8.4	12.0	4.9	2.9	32.7	29.8
Thailand	2.0	5.3	24.7	30.9	2.2	4.6	57.0	63.2
Vietnam	2.6	4.4	27.1	44.4	6.3	2.6	69.0	67.5
other Indochina[e]	5.7	2.2	29.0	15.5	6.7	2.2	61.2	45.9

Source: 1990 and 2000 Decennial Census 5% Integrated Public Use Sample (IPUMS)

Notes: [a]Includes youth born in Belize/British Honduras, Costa Rica, Honduras, and Panama.

[b]Includes youth born in Anguilla, Antigua-Barbuda, Bahamas, Barbados, British Virgin Islands, Cayman Islands, Dominica, Grenada, Montserrat, St. Kitts-Nevis, St. Lucia, St. Vincent, Trinidad & Tobago, Turks & Caicos, Aruba, Netherlands Antilles, Guadeloupe, Martinique, and West Indies NS.

[c]Includes youth born in Argentina, Bolivia, Brazil, Chile, Paraguay, Suriname, Uruguay, Venezuela, and South America NS.

[d]Includes youth born in Denmark, Finland, Iceland, Norway, Sweden, Scotland, Wales, Ireland, Belgium, France, Netherlands, Switzerland, Albania, Greece, Macedonia, Italy, Portugal, Spain, Austria, Bulgaria, Romania, Hungary, Yugoslavia, Croatia, Bosnia, Byelorussia, Ukraine, Armenia, and Uzbekistan.

[e]Includes youth born in North Korea, South Korea, Cambodia, Indonesia, Malaysia, Singapore, and Indochina NS.

Table 2. School Dropout and Limited English Rates of 15-to-17 Year-olds, by Place of Birth (in percent) (cont.)

	early childhood immigrant				recent arrival			
	school dropout		limited English		school dropout		limited English	
Place of birth	1990	2000	1990	2000	1990	2000	1990	2000
India	1.9	1.2	9.9	7.8	6.3	0.8	25.7	24.6
Pakistan	2.7	1.5	10.5	14.8	6.7	2.4	22.7	23.7
Iran	3.0	1.2	10.8	15.2	4.9	4.1	40.4	37.4
Israel/Palestine	2.0	2.2	17.9	14.5	4.3	1.4	30.7	27.3
other Asian[f]	5.3	0.5	12.7	11.4	10.4	5.7	37.0	39.8
Africa	3.1	1.4	5.4	8.7	3.3	3.4	37.9	29.2
Aust., NZ, and other Oceania	4.6	2.2	14.6	14.3	3.6	3.0	37.1	14.6
residual other[g]	12.9	15.4	25.7	20.3	19.4	8.0	48.9	39.3

Source: 1990 and 2000 Decennial Census 5% Integrated Public Use Sample (IPUMS)

Notes: [f]Includes youth born in Afghanistan, Bangladesh, Bhutan, Burma, Sri Lanka, Nepal, Iraq, Jordan, Kuwait, Lebanon, Saudi Arabia, Syria, Turkey, and Yemen Arab Republic.

[g]Includes youth born in Bermuda, Cape Verde, Greenland, and abroad, NS

Table 3. Descriptive Statistics for Foreign-born 15-to-17 Year-olds, 1990 and 2000 (in percent)

Characteristic	1990	2000
Age=15	30.2	30.1
Age=16	32.8	33.3
Age=17	36.9	36.6
	100.0	100.0
Male	52.6	53.5
Recent arrival	54.1	58.5
Born in Mexico	28.9	37.5
No parent in household	17.4	18.8
One parent in household	22.2	20.7
Both parents in household	60.4	60.5
	100.0	100.0
Household head no high school	53.0	48.5
Household head completed hs	15.2	17.3
Household head completed some coll	31.8	34.1
	100.0	100.0
In poverty	30.7	29.7
Mean number of siblings	1.9	1.7
No siblings	22.1	26.1
1 sibling	23.9	27.8
2 siblings	22.6	21.4
3 or more siblings	31.4	24.8
	100.0	100.0
Resided same house 5 years ago	31.6	33.7
Resided different house in U.S.	36.4	35.4
Resided different house abroad	32.0	30.9
	100.0	100.0
Ever married	3.1	4.4
Female with baby	1.1	1.3
Sample size	31,313	46,718

Source: 1990 and 2000 Decennial Census 5% Integrated Public Use Sample (IPUMS)

Note: All figures in percent, except the average number of siblings.

Table 4: Logistic Regression of Dropping Out of School, 15-to-17 Year-old Foreign-born Youth, 1990 and 2000

	early childhood arrivals				recent arrivals			
Regressor	Control for Age and Gender (1)	Control for Age, Gender, and Place of Birth (2)	Control for Age, Gender, and Place of Birth and Residence (3)	Model with Full Controls (4)	Control for Age and Gender (5)	Control for Age, Gender, and Place of Birth (6)	Control for Age, Gender, and Place of Birth and Residence (7)	Model with Full Controls (8)
Year=2000	0.630**	0.608**	0.571**	0.560**	0.982	0.805**	0.735**	0.737**
Age 15	Omitted	Omitted	Omitted	Omitted	Omitted	Omitted	Omitted	Omitted
Age 16	1.734**	1.782**	1.795**	1.601**	2.156**	2.168**	2.170**	1.786**
Age 17	2.743**	2.835**	2.869**	2.446**	3.581**	3.633**	3.631**	2.614**
Male	1.074	1.058	1.057	1.290**	1.512**	1.344**	1.324**	1.346**
No parent in household				2.921**				2.313**
Single parent in household				Omitted				Omitted
Both parents in household				0.649**				0.619**
Household head no hs comp				Omitted				Omitted
Household head completed hs				0.634**				0.536**
Household head completed some coll				0.442**				0.383**
Poverty				1.026				0.925*
No siblings				0.965				1.362**
One sibling				0.934				1.225**
Two siblings				0.782**				0.948
Three or more siblings				Omitted				Omitted
Resided same house 5 years ago				Omitted				Omitted
Resided different house in U.S.				1.239**				1.251**
Resided different house abroad				n.a.				2.266**
Ever married				3.114**				2.376**
Female with baby				2.966**				1.880**
Controls for place of birth	N	Y	Y	Y	N	Y	Y	Y
Controls for state of residence	N	N	Y	Y	N	N	Y	Y
- 2 Log-likelihood	15,690	15,020	14,865	12,989	37,859	32,105	31,809	27,410
Chi-square	422	1,092	1,248	2,729	1,650	7,403	7,700	11,419
N	34,194	34,194	34,194	33,868	43,837	43,837	43,837	43,309

Source: 1990 and 2000 Decennial Census 5% Integrated Public Use Sample (IPUMS)

Notes: $^{*}p < .05$, **p < .01

Table 5: Logistic Regression of Limited English Speaking, 15-to-17 Year-old Foreign-born Youth, 1990 and 2000

	early childhood arrivals				recent arrivals			
Regressor	Control for Age and Gender (1)	Control for Age, Gender, and Place of Birth (2)	Control for Age, Gender, and Place of Birth and Residence (3)	Model with Full Controls (4)	Control for Age and Gender (5)	Control for Age, Gender, and Place of Birth (6)	Control for Age, Gender, and Place of Birth and Residence (7)	Model with Full Controls (8)
Year=2000	0.944*	0.990	1.014	1.063*	0.904**	0.857**	0.876**	1.028
Age 15	Omitted	Omitted	Omitted	Omitted	Omitted	Omitted	Omitted	Omitted
Age 16	0.926*	0.935	0.929*	0.905**	1.184**	1.150**	1.151**	1.074*
Age 17	0.973	0.994	0.989	0.938	1.337**	1.284**	1.284**	1.114**
Male	1.174**	1.171**	1.169**	1.186**	1.247**	1.146**	1.145**	1.141**
No parent in household				2.036**				1.734**
Single parent in household				Omitted				Omitted
Both parents in household				0.838**				0.902**
Household head no hs comp				Omitted				Omitted
Household head completed hs				0.721**				0.698**
Household head completed some coll				0.571**				0.479**
Poverty				1.304**				1.211**
No siblings				0.745**				0.768**
One sibling				0.784**				0.789**
Two siblings				0.822**				0.862**
Three or more siblings				Omitted				Omitted
Resided same house 5 years ago				Omitted				Omitted
Resided different house in U.S.				0.934*				1.104**
Resided different house abroad				n.a.				3.652**
Ever married				1.833**				1.219**
Female with baby				0.760*				1.021
Controls for place of birth	N	Y	Y	Y	N	Y	Y	Y
Controls for state of residence	N	N	Y	Y	N	N	Y	Y
- 2 Log-likelihood	35,068	32,942	32,770	31,490	60,258	52,710	52,498	47,399
Chi-square	46	2,173	2,344	3,211	313	7,860	8,072	12,447
N	34,194	34,194	34,194	33,868	43,837	43,837	43,837	43,309

Source: 1990 and 2000 Decennial Census 5% Integrated Public Use Sample (IPUMS)

Notes: $^{*}p < .05$, **p < .01

Table 6: Logistic Regression of Dropping Out of School, 15-to-17 Year-old Mexican-born Youth, 1990 and 2000

	early childhood arrivals			recent arrivals		
Regressor	Control for Age and Gender (1)	Control for Age, Gender, and Place of Residence (2)	Model with Full Controls (3)	Control for Age and Gender (4)	Control for Age, Gender, and Place of Residence (5)	Model with Full Controls (6)
Year=2000	0.684**	0.622**	0.570**	0.832**	0.738**	0.758**
Age 15	Omitted	Omitted	Omitted	Omitted	Omitted	Omitted
Age 16	2.075**	2.112**	1.813**	2.454**	2.466**	1.952**
Age 17	3.209**	3.296**	2.652**	4.213**	4.219**	2.897**
Male	1.155*	1.149*	1.439**	1.487**	1.456**	1.439**
No parent in household			2.838**			2.353**
Single parent in household			Omitted			Omitted
Both parents in household			0.594**			0.548**
Household head no hs comp			Omitted			Omitted
Household head completed hs			0.759*			0.492**
Household head completed some coll			0.447**			0.407**
Poverty			1.020			0.938
No siblings			1.036			1.482**
One sibling			1.051			1.259**
Two siblings			0.753**			1.004
Three or more siblings			Omitted			Omitted
Resided same house 5 years ago			Omitted			Omitted
Resided different house in U.S.			1.338**			1.310**
Resided different house abroad			n.a.			2.810**
Ever married			3.314**			2.309**
Female with baby			2.569**			1.504**
Controls for state of residence	N	Y	Y	N	Y	Y
- 2 Log-likelihood	7,333	7,210	6,204	18,700	18,425	15,137
Chi-square	252	376	1,225	1,158	1,434	4,450
N	12,162	12,162	12,039	15,542	15,542	15,368

Source: 1990 and 2000 Decennial Census 5% Integrated Public Use Sample (IPUMS)

Notes: $^{*}p < .05$, **p < .01

Table 7: Logistic Regression of Limited English Speaking, 15-to-17 Year-old Mexican-born Youth, 1990 and 2000

	early childhood arrivals			recent arrivals		
Regressor	Control for Age and Gender (1)	Control for Age, Gender, and Place of Residence (2)	Model with Full Controls (3)	Control for Age and Gender (4)	Control for Age, Gender, and Place of Residence (5)	Model with Full Controls (6)
Year=2000	0.964	0.968	1.021	0.816**	0.826**	0.993
Age 15	Omitted	Omitted	Omitted	Omitted	Omitted	Omitted
Age 16	0.982	0.972	0.922	1.294**	1.289**	1.106*
Age 17	0.999	0.991	0.912	1.561**	1.547**	1.182**
Male	1.130**	1.129**	1.140**	1.266**	1.256**	1.146**
No parent in household			2.355**			1.816**
Single parent in household			Omitted			Omitted
Both parents in household			0.825**			0.834**
Household head no hs comp			Omitted			Omitted
Household head completed hs			0.772**			0.789**
Household head completed some coll			0.644**			0.599**
Poverty			1.246**			1.125**
No siblings			0.699**			0.929
One sibling			0.800**			0.879*
Two siblings			0.841**			0.893*
Three or more siblings			Omitted			Omitted
Resided same house 5 years ago			Omitted			Omitted
Resided different house in U.S.			0.931			1.260**
Resided different house abroad			n.a.			3.853**
Ever married			1.809**			1.106
Female with baby			0.765			0.893
Controls for state of residence	N	Y	Y	N	Y	Y
- 2 Log-likelihood	14,683	14,604	14,066	18,413	18,293	16,435
Chi-square	10	89	459	179	299	1,981
N	12,162	12,162	12,039	15,542	15,542	15,368

Source: 1990 and 2000 Decennial Census 5% Integrated Public Use Sample (IPUMS)

Notes: $^{*}p < .05$, **p < .01

Table 8: Logistic Regression of Dropping Out of School, 15-to-17 Year-old Youth, 1990 and 2000

Regressor	Sample: Natives and all Immigrants (1)	Sample: Natives and all Immigrants (2)	Sample: Natives and Early Childhood Immigrant Arrivals (3)
Year=2000	0.575**	0.553**	0.557**
Year=2000*Foreign-born status		1.369**	1.086
Age 15	Omitted	Omitted	Omitted
Age 16	1.731**	1.730**	1.719**
Age 17	2.824**	2.824**	2.842**
Male	1.208**	1.206**	1.179**
No parent in household	1.995**	1.992**	1.806**
Single parent in household	Omitted	Omitted	Omitted
Both parents in household	0.687**	0.686**	0.711**
Household head no hs comp	Omitted	Omitted	Omitted
Household head completed hs	0.536**	0.536**	0.534**
Household head completed some coll	0.358**	0.359**	0.358**
Poverty	1.257**	1.258**	1.336**
No siblings	0.862**	0.857**	0.820**
One sibling	0.815**	0.809**	0.759**
Two siblings	0.787**	0.784**	0.751**
Three or more siblings	Omitted	Omitted	Omitted
Resided same house 5 years ago	Omitted	Omitted	Omitted
Resided different house in U.S.	1.432**	1.432**	1.451**
Resided different house abroad	2.894**	2.889**	1.807**
Ever married	3.032**	3.018**	3.236**
Female with baby	3.239**	3.236**	3.316**
Controls for place of birth	Y	Y	Y
Controls for state of residence	Y	Y	Y
- 2 Log-likelihood	386,576	386,452	357,479
Chi-square	67,186	67,311	49,526
N	1,118,234	1,118,234	1,074,925

Source: 1990 and 2000 Decennial Census 5% Integrated Public Use Sample (IPUMS)

Notes: $^{*}p < .05$, **p < .01

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