Published in final edited form as:
Ethn Racial Stud. 2011 ; 34(9): 1543–1566. doi:10.1080/01419870.2010.543139.

Trends in Educational Attainment by Race/Ethnicity, Nativity, and Sex in the United States, 1989–2005

BETHANY G. EVERETT[Doctoral Candidate],
Department of Sociology at the University of Colorado-Boulder. Population Program, 483 UCB, University of Colorado, Boulder, CO 80309-0484 USA

RICHARD G. ROGERS[Professor],
Department of Sociology and Director of the Population Program in the Institute of Behavioral Science at the University of Colorado-Boulder. Population Program, 483 UCB, University of Colorado, Boulder, CO 80309-0484 USA

ROBERT A. HUMMER[Professor], and
Department of Sociology and a research associate of the Population Research Center at the University of Texas at Austin. 1800 Main Building, G1800, Population Research Center, University of Texas, Austin, Texas, 78712, USA

PATRICK M. KRUEGER[Assistant Professor of Sociology and Assistant Professor of Health and Behavioral Sciences]
University of Colorado-Denver. University of Colorado-Denver, Department of Sociology, Campus Box 105, PO Box 173364, Denver, CO 80217, USA

BETHANY G. EVERETT: Bethany.Everett@Colorado.edu; RICHARD G. ROGERS: Richard.Rogers@Colorado.edu; ROBERT A. HUMMER: rhummer@prc.utexas.edu; PATRICK M. KRUEGER: Patrick.Krueger@Ucdenver.edu

Abstract

Despite the importance of education for shaping individuals' life chances, little research has examined trends and differences in educational attainment for detailed demographic subpopulations in the United States. We use labor market segmentation and cohort replacement theories, linear regression methods, and data from the National Health Interview Survey to understand educational attainment by race/ethnicity, nativity, birth cohort, and sex between 1989 and 2005 in the United States. There have been significant changes in educational attainment over time. In support of the cohort replacement theory, we find that across cohorts, females have enjoyed greater gains in education than men, and for some race/ethnic groups, recent cohorts of women average more years of education than comparable men. And in support of labor market segmentation theories, foreign-born Mexican Americans continue to possess relatively low levels of educational attainment. Our results can aid policymakers in identifying vulnerable populations, and form the base from which to better understand changing disparities in education.

Keywords

Education; Race/Ethnicity; Nativity; Sex; Cohort

Introduction

Recent decades have witnessed tremendous changes in educational attainment in the United States that partially reflect changes in the country's racial and ethnic inequality, immigration

flows and policies, shifts in the economy, and changing opportunities for race/ethnic minorities and women. Unlike income and occupation, educational attainment is usually determined at a relatively young age and persists over the life course, regardless of changes in health or labor force participation. Thus, educational attainment has become a central variable for understanding adult well-being in the United States, with particular recent attention given to the impact of educational attainment on later life health and mortality.

High levels of education are associated with lower odds of divorce, criminal behavior, and incarceration (Martin and Bumpass 1989; Lochner and Moretti 2004; Pettit and Western 2004), and improved chances for employment, occupational advancement, higher incomes, and health and retirement benefits (Chiswick, Lee, and Miller 2003; DiPrete and Buchmann 2006). Higher levels of education are also associated with healthier behaviors, better interactions with healthcare professionals and the healthcare system, and ultimately, longer lives (Hummer and Lariscy 2011; Link and Phelan 1995; Mirowsky and Ross 1998; Rogers, Hummer, and Nam 2000; Smith 2005). Given the importance of education, this paper documents trends and differentials in educational attainment by race/ethnicity, nativity, birth cohort, and sex in the United States between 1989 and 2005.

Limited research has examined interactions among race/ethnicity, nativity, birth cohort, and sex when investigating trends in education, although a growing literature suggests that those characteristics combine to shape educational trends (Weber 2001; Browne and Misra 2002; McCall 2005; Buchmann, Diprete and McDaniel 2008). Prior studies have used a similar approach to reveal inequalities in earnings and other labor force outcomes (Brewer, Conrad and King 2002; Browne and Misra 2003; Greenman 2008). For example, Lopez (2003) investigated the intersection of race and gender among Caribbean youth in New York City schools. Although both males and females were singled out for their minority status, young males were targeted for stricter punishments and placed in lower educational tracks than females. Others have shown that nativity interacts with country of origin to provide better economic opportunities for some race/ethnic groups than others (Bailey and Waldinger 1991). We extend prior work by using a large nationally representative sample from the United States covering the last 16 years to examine detailed patterns of and changes in educational attainment by race/ethnicity, nativity, and gender across four birth cohorts.

Labor Market Segmentation and Immigrants' Educational Attainment

Labor market segmentation theories are particularly helpful for understanding educational attainment among immigrants to the United States by focusing on their differential participation in the primary and secondary labor market sectors (Averitt 1968; Brown and Bean 2006; Portes and Zhou 1993; Tolbert, Horan and Beck 1980). The primary sector is dominated by large, well-established, capital-intensive firms that hire individuals for high skill, high wage jobs, whereas the secondary sector consists of lower paying, low-skilled, often seasonal and unstable labor-intensive work. This labor market segmentation often dictates the kinds of jobs that are available to immigrants, and in turn, influences immigrants' incentives for attaining additional schooling. For example, limited avenues to upward mobility within the secondary labor market may attract immigrants with lower levels of education, and discourage immigrants from obtaining additional education once they are in the United States (Brown and Bean 2006). Thus, the experiences of migrants are affected both by their skills and resources upon arrival into the United States, and the incentives they face once living and working in this country.

Historical shifts in the U.S. economy and immigration policy have influenced the development of the dual labor market and the recruitment of workers into its segments (Borjas 2003; Levy and Murname 1992; Massey 1995; Portes and Grossfoguel 1994).

Northern and western Europeans dominated migration to the United States in the early 20th century, a pattern largely facilitated by the 1924 National Origins Act, which limited the migration of persons from a specific country to 3% of the existing total population already present within the United States. Moreover, a ban against Asian immigration began in 1917 and persisted until 1965. During this time period, inequality was both high and stable in the United States, resulting in a segmented labor market that was filled primarily by educated native and foreign-born Europeans and low educated native-born whites and African Americans. Latin American and Caribbean foreign-born populations played a modest role in the labor force during this time period (Kent 2007; Levy and Murname 1992).

Major changes in the labor market and migration policies occurred between 1930 and 1970 (Massey 1995). This period was characterized by low levels of migration due to the restrictive immigration policies established in 1924 and a dearth of job opportunities during the Great Depression of the 1930s. Inequality decreased during this period because millions of U.S. residents lost their jobs in all sectors of the labor market. Spurring an end to the Great Depression, the Second World War (WWII) created an additional barrier to migration into the United States between 1939 and 1945 and created another shift in both the U.S. economy and migration policies (Massey 1995).

After WWII, job opportunities improved in the United States. But at the same time, the Marshall Act also created jobs in Europe, which dissuaded many Europeans from seeking employment across the Atlantic. The job vacuum in the United States was largely filled by Latin American and Caribbean origin migrants. In 1965, migration from these regions was further enabled by the Immigration and Nationality Act, which ended national origin quotas that limited nonwhite immigration, lifted the ban on Asian immigration, and favored immigrants with desired job skills, professional qualifications, and high levels of education (Kent 2007).

Employment opportunities after WWII were also shaped by globalization, which facilitated the movement of many low skill blue-collar jobs to lower income countries that could pay lower wages and increased the mobility of highly skilled workers across countries, all of which can apply pressure to all segments of the labor force (Campa and Goldberg 1997; Levy and Murname 1992; Sachs and Shate 1996). These changes have depressed wages for low-skill employees—because only low status jobs that cannot be exported remain in the United States, such as in agriculture and construction—while the demand for highly-skilled employees has increased (Howell and Wolf 1991; Wood 1994). The United States has simultaneously undergone a shift to a “service economy” (Fuchs 1968), and by 2000, the majority of jobs in the United States were service based (OECD 2000). Service work usually draws workers with little education and offers low wages. Thus, the relative differences in salaries between those with college degrees and those without have also increased (Slaughter and Swagel 1997; Goldin and Katz 1999), and the U.S. draws on migrant workers with little education to fill many low status jobs at relatively little pay.

Geographical and political ties to the United States by country of origin also influence the education level of migrants to the United States. For example, although both Puerto Rico and Cuba are fairly close in geographic proximity to the mainland United States, their political circumstances are unique. Between 1900 and 1920 large numbers of Cuban migrants immigrated to the United States to join a pre-existing émigré community that filled many blue collar and service jobs (Portes and Grossfoguel 1994). In the 1960s, however, there was another peak in Cuban immigration to the United States that was composed primarily of the bourgeoisie and white-collar professionals seeking asylum in the United States from the new Castro-led government. Conversely, Puerto Rican mainland-born residents have been eligible for U.S. citizenship status since 1917 and can therefore move

freely around the country for work and schooling because they do not incur the same restrictions and barriers that immigrants face (Feliciano 2005; Wojtkiewicz and Donato 1995).

Immigrants who travel long distances may only migrate if they expect to have fairly high chances of labor market success in the United States (Long 1973; Rumbaut 1997; Massey 1999; Feliciano 2005; Kent 2007). Thus, migrants from Europe, Asia, and Africa (and who are most likely to be white, Asian, and black, respectively) may have higher levels of education than immigrants from South or Central America. For example, 38% of foreign-born black adults aged 25 and older have earned at least a Bachelor's degree (Kent 2007). Immigration between Mexico and the United States is streamlined because of strong and well-established social networks, including family reunification, the common border, and the relatively short distance and cost (Feliciano 2005), which facilitate the immigration of less educated Mexicans who are looking for work.

Overall, native-born U.S. adults average higher levels of education than foreign-born adults. For instance, the percentage of individuals aged 25 and older who were high school graduates in the year 2000 was 86.6 among the native-born population, but was 67.0 among the foreign-born population. But educational attainment can also vary dramatically by country of birth. The percentage of adults aged 25 and older in the year 2000 who were high school graduates was just 33.8 for those born in Mexico, over 80.0 for those born in Europe or Asia, and 94.9 among those born in Africa (U.S. Bureau of the Census 2001). Some African immigrants initially came to the United States on international student visas (Kent 2007). Wojtkiewicz and Donato (1995) examined the role that nativity plays in patterns of educational attainment among Mexican, Puerto Rican, and non-Hispanic white youth and found that U.S.-born Mexican Americans have higher educational attainment than foreign-born Mexican immigrants. Across all groups, immigrants who arrive in the United States at younger ages go on to obtain more education than those who arrive when they are older (Chiswick and DeBurman 2004; Hirschman 2001).

Cohort Replacement and Sex and Race/Ethnic Changes in Educational Attainment

Cohort replacement theory emphasizes that our attitudes, goals, and expectations are shaped during childhood by the values and attitudes of the people we see around us, primarily our parents (Firebaugh 1989). For example, recent cohorts of women have come of age in an era of more egalitarian modes of behavior and attitudes between the sexes. Up until the 1950s, women's relationships to their husbands were characterized by discourses of self-sacrifice. The 1960s and 1970s brought about a new era where women were encouraged to express their emotions, facilitate change, and strive for self-fulfillment outside of the home (Cancian and Gordon 1988). Changes in the labor market in recent decades have dramatically increased women's economic opportunities (Goldin 2006), made education more lucrative for women, and facilitated their entry into college (Bae et al. 2000; Freeman 2004; Buchmann, Diprete, and McDaniel 2008).

Similarly, among Mexican-American youth, parents' educational attainment has been shown to be an important pathway through which normative educational expectations and achievement are shaped (Hurtado-Ortiz and Gauvain 2007). These normative shifts were coupled with changes in legislation. In 1964, the Civil Rights Act ended segregation and discrimination in the workplace and was subsequently amended in 1972 with the addition of Title IX to eliminate discrimination in educational institutions. These changes affected the institutional and normative barriers to higher education for both women and race/ethnic minorities. These major shifts in educational opportunities across cohorts have been shown

to be more influential than intra-cohort influences (Brewster and Padavic 2000; Brooks and Bolzendahl 2004). As a result, we expect younger generations of women and race/ethnic minorities will have higher levels of education than older birth cohorts.

Despite changes to policies that emphasize equal access to education and employment, discrimination remains a critical barrier to equal employment. Several studies have found that women and minorities are called back for interviews 50% less frequently than comparable males and whites, hired less often for high skill jobs, and once hired are paid less (Betrand and Mullainathan 2004; Phelps 1972; Arrow 197; Mason, 1995; Altonji and Blank 1999). A recent meta-analysis shows that females are paid roughly 30% less than males, but among younger cohorts, the difference is smaller, at 22% (Stanley and Janell 1998).

While informative, most studies combine all race/ethnic groups or focus on only select race/ethnic subpopulations. For example, DiPrete and Buchmann (2006) based their recent study on whites and blacks aged 25–34. But prior research offers little insight into whether sex differences in education are closing for other race/ethnic groups, or for both U.S. natives and immigrants across various ages. The applicability of cohort replacement theory for understanding education attainment trends, however, may be limited to non-migrant populations, due to the structural barriers outlined by labor market segmentation theory (Averitt 1968; Portes and Zhou 1993; Tolbert, Horan and Beck 1980).

Aims

Because educational attainment plays such a critical role in the life chances of American adults, the social science literature could benefit from a more extensive examination of educational trends across cohorts and for detailed subpopulations. Labor market segmentation theories suggest that increases in education may be slowest for immigrants from countries with low barriers to immigration to the United States (i.e., Mexico), but greatest for immigrants from more distant countries (i.e., countries in Asia, Europe, and Africa, whose immigrants are most likely to be Asian, white, and black, respectively) or who come from places with unique political relationships with the United States (i.e., Cuba and Puerto Rico).

Cohort replacement theory suggests that generational changes in gender roles and in policies that facilitate educational attainment among women and race/ethnic minorities reduce race/ethnic and sex disparities in education. However, little prior work has examined whether sex differences have closed across diverse race/ethnic subpopulations or by nativity.

Thus, we examine birth cohort-based trends in educational attainment by age, sex, race/ethnicity (including detailed Hispanic subpopulations), and nativity between 1989 and 2005. Our analyses specifically test for interactions among race/ethnicity, nativity, and sex, given the unique structural barriers that constrain educational attainment both across and within race/ethnic groups (McCall 2005).

Data

We employ the National Health Interview Survey (NHIS) for the years 1989 through 2005 to examine educational attainment trends in the United States. The annual NHIS is well-suited to our research aims because it: (1) contains data on educational attainment for a number of relatively small race/ethnic groups; (2) is very large; (3) is nationally representative; (4) includes consistent social and demographic measures over time; and (5) includes nativity, beginning in 1989, which is important to consider when examining U.S. trends in educational attainment. The 17 years of data allow us to track recent changes over

time, including, in many instances, the point at which the sex gap in educational attainment changes from a male to a female advantage. NHIS includes non-institutionalized adults living in the United States. The U.S. Bureau of the Census coordinates many demographic surveys, including the NHIS and the Current Population Survey (CPS), to ensure that households are sampled in only one rather than multiple surveys. Unlike the Census, which is primarily mailed out and mailed back, trained U.S. Census Bureau enumerators collect NHIS data through face-to-face interviews (NCHS 1999).

Educational attainment, the outcome variable, is coded continuously from 0 to 18 or more years. NHIS changed the coding strategy for education between 1996 and 1997 to ask educational attainment as a categorical variable that captured whether respondents had completed 1–12 years of school, graduated high school, or obtained an associates, bachelors, masters, professional, or doctoral degree. To adjust for this change, we converted the categories into comparable years of education and include a dummy variable for whether persons where surveyed before 1997 or in 1997 or after. We graphed the mean education level by year and did not discern any breaks between 1996 and 1997 due to coding changes, which suggests that the measurement change has little effect on the study results.

The primary predictor variables of interest are birth cohort, race/ethnicity, nativity, age, sex, and calendar period. Following Carlson (2008), cohorts are measured using four dichotomous variables that capture whether respondents were born between 1909 and 1928; 1929 and 1945; 1946 and 1964; and 1965 and 1982. Cohorts are an important demographic measure because they vary substantially by such educational characteristics as class sizes, educational expectations and aspirations, and costs per student. Sex is coded dichotomously with females as the referent. We code race/ethnicity categorically as white (referent), black, Asian American, and Native American (among non-Hispanics), and Mexican American, Puerto Rican, and Cuban (among Hispanics). Nativity indicates whether individuals are U.S.-born (referent) or foreign-born. Although mainland- and island-born Puerto Ricans are U.S. citizens, for consistency with other race/ethnic groups, we refer to those born on the mainland as U.S.-born and those born on the island as foreign-born. While there are a few foreign-born Native Americans (most likely indigenous persons from Canada, or Central and South America), their small numbers preclude detailed analyses and are therefore dropped from models that examine education trends for foreign-born populations. Calendar year is measured as the survey year in which the individual responded and is coded continuously from 0 (in 1989) to 16 (in 2005). Age is measured in four dichotomous variables that capture whether respondents are between 25 and 39 years, 40–54 years, 55–69 years, or 70 years of age or older.[1] We restrict the analyses to adults aged 25 or older, as most people have completed their education by that time. After eliminating 2.0% of the cases that are missing data on key variables, our data set includes 927,151 records.

We use ordinary least squares (OLS) regression to estimate trends and differentials in educational attainment. Our predictor variables include age, sex, race/ethnicity, birth cohort, nativity, calendar period, and the dummy variable that indicates the change in the wording of the education question. We tested for interactions between race/ethnicity, cohort, nativity, calendar period, and sex with the following strategy. First, we tested for all possible two-way interactions and kept only those groups of interactions that significantly improved the model fit using an F-test. We excluded any two-way interactions that did not improve model fit (i.e., calendar period by nativity), and did not test for higher order interactions that built on those two-way interactions. Second, if a given set of two-way interactions were significant, then we tested for three-way interactions; we include nativity by sex by race/

[1]Our results are robust to different age specifications.

ethnicity, nativity by race/ethnicity by cohort, and nativity by sex by cohort. The four-way interactions were not significant.

We used F-tests to assess improvements in model fit because some of the variables have multiple categories, so that the t-tests for individual coefficients are more likely to be significant due to chance alone (Type I error). Separate analyses (not shown) included all possible two-, three-, and four-way interactions, and found virtually identical predicted values of educational attainment, further confirming that our multivariate models capture the most important trends. We use the "svy" commands in Stata to estimate Taylor linearized standard errors that account for the stratified, multistage sampling frame used by the NHIS, and to weight our data to the national level (NCHS 2002; Stata Corp. 2007). We account for changes in the NHIS sampling frame over time by using the method described by Korn and Graubard (1999).

Results

Table 1 presents mean years of sex-specific educational attainment by race/ethnicity, stratified by sex and nativity, and shows several important patterns. First, among non-Hispanics, foreign-born individuals typically have higher levels of education than their U.S.-born counterparts. But among Hispanics, foreign-born Mexican and Cuban Americans have lower levels of education than their U.S.-born counterparts; the same is true when comparing island- to mainland-born Puerto Ricans. Males have higher levels of educational attainment than females in some racial/ethnic groups, but that is not always the case. For example, among U.S.-born blacks, Native Americans, and Cubans, females average higher levels of education than males. Although these results are informative, they do not adjust for cohort differences, calendar period, or differences in age-composition within cohorts. Thus, we now turn to the multivariate models.

Table 2 shows OLS regression coefficients for the demographic covariates on educational attainment. We present main effects and second- (two-way), and third-order (three-way) interactions that we estimated using the model building strategy described above. We use the coefficients in Model 1 to calculate the predicted mean levels of educational attainment in Table 3. We adjust the predicted values for age and year by adjusting the mean to account for the proportion of each cohort in each age group and holding calendar year at its mean. We discuss the results in Table 3 because they can be understood more intuitively, but we refer to the coefficients from Table 2 to clarify our discussion as needed.

Table 3 presents the predicted levels of educational attainment for adults by birth cohort, sex, and race/ethnicity for U.S.-born (Panel A) and foreign-born (Panel B) respondents. The final row of each panel shows the difference in average educational attainment between persons born between 1909 and 1928, and persons born between 1965 and 1982, with positive values indicating increasing average levels of educational attainment among more recent birth cohorts. We divide the discussion of this table up into U.S.-born and foreign-born subsections to facilitate the understanding of the different trends experienced by these segments of the population.

U.S.-Born Individuals

Panel A of Table 3 shows that women averaged greater increases in years of education between the oldest and youngest cohorts than men for all race/ethnic groups. For example, U.S.-born white males born between 1965 and 1982 averaged 1.50 more years of education than males born between 1909 and 1928, but their female counterparts gained an average of 1.97 years. For several race/ethnic groups, including U.S.-born whites, Non-Hispanic blacks, Native Americans, Mexicans, and Puerto Ricans, women's greater gains in education

between cohorts has resulted in a reversal of the male advantage observed among those born between 1909 and 1928. Further, for all U.S.-born race/ethnic groups, except Asian Americans, women born between 1965 and 1982 have on average higher levels of education than their male counterparts.

While education levels among more recent birth cohorts for all racial/ethnic groups have increased compared to older cohorts, the rate of increase is greater for some race/ethnic groups than for others. U.S.-born Mexican Americans exhibited the greatest gains in education across the cohorts examined here, with males gaining 4.13 years between the 1909 to 1928 cohort and the 1965–1982 cohort, while females gained 4.59 years. U.S.-born black, Asian, and Cuban women all gained over three years of education across cohorts. Most of the gains in education for all race/ethnic groups appear to have been made among cohorts born between 1909 to 1928, and 1946 to 1964, as there are only small increases in education in later cohorts. For example, U.S.-born black women born between 1946 and 1964 averaged 3.28 more years of education than their counterparts born between 1909 and 1928, although U.S.-born black women increased their education by only 0.26 years when comparing the 1946–1964 and 1965–1982 cohorts.

There are sizeable differences in educational attainment across Hispanic subgroups. Mexican Americans born between 1909 and 1928 averaged 7.5 years of education, but U.S.-born Cuban Americans in that cohort averaged almost 11 years of education. Both groups experienced increases over time, but by 2005, U.S.-born Mexican Americans still had the lowest average levels of education across all the race/ethnic groups examined here, whereas U.S.-born Cuban Americans averaged more years of education than any other group except Asian Americans, and non-Hispanic white men.

Foreign-Born Individuals

Panel B shows that the trends among foreign-born respondents mirror those of U.S.-born respondents. Females in all race/ethnic groups averaged greater gains in education across birth cohorts than males. Despite these gains, foreign-born white, black, and Asian females born between 1965 and 1982 still have lower average levels of education than their male counterparts. Only among Hispanic subgroups did females make such large gains that they overtook males in the 1965 to 1982 birth cohort.

Similar to U.S.-born Mexican Americans, foreign-born Mexican Americans made large gains in education across cohorts; males gained an average of 3.48 years and females gained 4.52 years when comparing the 1909–1928 and 1965–1982 birth cohorts. Despite their substantial improvements, U.S.- and foreign-born Mexican Americans had the lowest levels of education across all cohorts. Indeed, foreign-born Mexican men and women in the 1965–1982 cohort averaged just over 9 years of education, compared to foreign-born Puerto Ricans and Cubans in the same cohort who averaged roughly 12 years.

We also found substantial differences between U.S.- and foreign-born Hispanics and non-Hispanics. For most cohorts, U.S.-born non-Hispanics (especially whites and blacks) had *lower* average levels of education than their foreign-born counterparts. But U.S.-born Hispanics (i.e., Mexican Americans, Puerto Ricans, and Cuban Americans) had *higher* levels of education than their foreign-born counterparts. Moreover, unlike the trends revealed among the U.S.-born, foreign-born Hispanics' levels of education have continued to increase between the 1946–1964 and 1965–1982 cohorts. For example, foreign-born Mexican females gained almost 1 year between the most recent cohort and the previous cohort. Further, compared to U.S.-born Puerto Ricans, foreign-born Puerto Ricans made much larger gains over time. Between the 1909–1928 and 1965–1982 cohorts, U.S.-born

Puerto Rican men and women only gained about 1.5 years of education, whereas foreign-born Puerto Ricans gained well over 4 years.

Conclusion

We use nationally representative data on U.S. adults aged 25 and older to examine interactions among nativity, gender, and race/ethnicity (McCall 2005) in shaping educational attainment across birth cohorts. We advance prior research by focusing on detailed race/ethnic groups, including Native Americans, Asians, and detailed Hispanic subgroups; comparing native- and foreign-born individuals; and documenting important gender differences across cohorts.

Our findings of nativity differences in education are consistent with labor market segmentation theories that suggest that low-skill and poorly educated immigrants may have few opportunities for occupational advancement, and as such, may have few incentives to gain additional education. Further, individuals may decide to migrate to the United States based on their skills and resources, the costs of migrating, and their expected opportunities once they arrive. The shift from the restrictive migration policies of the 1924 National Origins Act to the 1965 Immigration and Nationality Act further facilitated the movement of Mexican origin migrant workers to the United States. While this change in policy was intended to increase work opportunities to all persons who migrated to the United States, the post WWII labor market was characterized by an increasingly segmented labor market that was no longer being filled by European migrants, creating a host of secondary labor market employment opportunities but little motivation for gaining additional education (Levy and Murname 1992; Massey 1995).

Thus, it is not surprising that Mexican Americans have the largest education gap between the native- and foreign-born subpopulations (for similar results, see Wojtkiewicz and Donato 1995). Foreign-born Mexican American men born between 1965 and 1982 averaged 9.12 years of formal schooling, compared to 11.98 years among their U.S.-born counterparts. Mexican Americans with low levels of education are encouraged to immigrate to the United States through extensive and well-established social networks, the close proximity and shared border, and the substantial earnings differential for low-skilled labor between the two countries (Long 1973; Massey 1999; Rumbaut 1997; Feliciano 2005).

Hispanic subgroups exhibit substantial differences in educational attainment. In contrast to Mexican American immigrants, Cuban American immigrants have high levels of education —sometimes more than non-Hispanic whites, depending on the cohort and sex (see also Portes, Fernandez-Kelly, and Haller 2005). The high educational level among Cuban American immigrants is most likely due to the disproportionate numbers of middle and upper class Cubans who fled the Castro regime in the 1960s. Island-born Puerto Ricans have levels of education that typically fall between those of Mexican American and Cuban American immigrants. Cuba and Puerto Rico, like Mexico, are quite close to the mainland United States, which may facilitate immigration, even among those with modest resources. But Cuba and Puerto Rico have very different political relationships with the United States. In the 1960s, highly educated Cubans sought asylum in the United States while Puerto Ricans have had U.S. citizenship since 1917.

Across all age groups, U.S.-born Hispanics have enjoyed more average years of education than their foreign-born peers, although that was not always the case among non-Hispanics. Non-Hispanic white, black, and Asian male immigrants in the 1965–1982 cohort average higher levels of education than their U.S.-born counterparts—a differential that is consistent with the high levels of education among European, Asian, and African immigrants (U.S.

Bureau of the Census 2001), and with the strong selective pressures that arise from the greater costs and longer distances associated with immigration for these groups. Furthermore, because many immigrants initially enter the country to enroll in colleges and universities on nonimmigrant student visas, it is reasonable to expect that these individuals will ultimately settle in the United States with high levels of education (Kent 2007).

Consistent with cohort replacement theory, recent research has found that the male advantage in educational attainment, relative to females, has eroded in recent cohorts (Bae et al. 2000; DiPrete and Buchmann 2006). This shift has been facilitated by changes in the normative expectations about employment and marriage among women, and laws that facilitated women's access to higher education and to higher status jobs (Cancian and Gordon 1988; Mason and Lu 1988). We extend prior research by examining a more detailed set of race/ethnic groups and find that women have increased their educational attainment more quickly than men. Among older cohorts, both foreign- and U.S.-born males generally averaged more years of education than comparable females.

Cohort replacement theory also may partially explain the larger increases in educational attainment among race/ethnic minorities (except U.S.-born Puerto Ricans) compared to non-Hispanic whites. Across the cohorts examined herein, non-Hispanic white males and females gained 1.55 and 1.99 years, respectively, while non-Hispanic black men and women gained 2.89 and 3.33 years, Asian Americans gained 2.87 and 3.67 years, and Native Americans gained 2.49 and 2.93 years. The large gains in education among race/ethnic minorities, however, have not eliminated educational disparities in the United States. And given the important connections between education and other life chances, policies should especially continue to focus on improving education for disadvantaged populations. Currently, decreased government spending on education threatens to widen existing educational disparities (Kane et al 2003). For example, the No Child Left Behind Act was originally designed to increase accountability in schools. However, some have argued that rather than providing incentives that improve the school outcomes of disadvantaged populations, schools now push students out who may have low grades or test scores that threaten school funding (Orfield et al. 2004). Although the No Child Left Behind Act was implemented after most of our survey respondents had completed high school, it reflects a broader approach to school policy that may have accounted for stagnating levels of educational attainment in the United States since the 1990s (Lee 2002).

Other sources for continued race/ethnic inequalities in educational attainment within the United States may result from differences in language (Fligstein and Fernandez 1985; Rong and Grant 1992), school location and quality (Karen 2002; Rumbaut 1995), peer networks and the academic performance of friends (South et al. 2007), family structure and parent's expectations about academic performance (Glick and White 2003a, 2003b), parent's education (Haveman et al. 1991), and economic and political conditions in migrant-sending countries (Massey 1999; Rumbaut 1997). Indeed, the Marshall Act provided job opportunities in Europe, leaving a variety of secondary labor market opportunities in the United States to be filled by Hispanic immigrants. The demand for workers to fill low paying and low skill jobs that cannot be shipped abroad—including agricultural and construction work—continues to draw poorly educated Mexican migrants to the United States. Similarly, the global flow of jobs and workers after WWII, and the growth of service sector jobs, reduced job stability and may have reduced the incentives to pursue additional education in recent cohorts.

Our analyses cannot account for the influence of educational policies in migrants' countries of origins for several reasons. First, our data do not provide information about the countries of origin for Asian, white, and black immigrants. Second and concomitantly, our data do not

provide information about when migrants moved to the U.S., or what share of their education they received prior to immigrating. Thus, we cannot link respondents to the education policies in their countries of origin when, and if, they were students in those countries. Finally, our data provide little insight into the forces that lead a non-random subset of residents in each country, at specific ages, to migrate to the U.S. These limitations are common to many studies of migrant populations in the U.S., and cannot be easily addressed with any available data.

Our results may overstate educational attainment for subpopulations with high rates of institutionalization or death. For example, compared to their white counterparts, black males with low levels of education are more likely to be in prison (Pettit and Western 2004) and to die at young ages (Rogers et al. 2000), and would therefore be missing from our sample. Social policies that aggressively promote educational attainment among black males, especially native-born black males, as well as other groups with lower average levels of education, may result in higher rates of employment and marriage, lower rates of incarceration, and better health and longevity outcomes—factors that may benefit not only individuals but also their families and communities. Furthermore, social policies that close educational disparities may also substantially close health disparities among vulnerable subpopulations.

Future research could also examine educational differences among Asian subpopulations, including Chinese, Filipino, Asian Indian, and other Asian Pacific Islanders. For example, Kauffman (2004) found that, compared to second generation U.S.-born Chinese Americans, Chinese immigrants are more likely to make substantial investments in education. Nevertheless, the greater migration costs and distances of Asian compared to Mexican immigrants selects individuals with higher levels of educational attainment (see Feliciano 2005), a finding that is consistent with dual labor market theory.

Our finding of a growing female advantage in education among younger generations is consistent with cohort replacement theory. Furthermore, we find persistently low levels of education among traditionally disadvantaged immigrant populations, despite large overall increases in U.S. educational attainment between 1909 and 1982. Changes in access to education and the primary labor market, as well as shifting attitudes regarding educational attainment among these groups, may increase the value of education; still, much more work is needed to address the continued low levels. By examining the intersections between race, gender, nativity, and birth cohort, we elucidate previously ignored points of both continued marginalization and progress. Our findings underscore the value of understanding trends in educational attainment in diverse demographic subpopulations, and have salience for researchers and policymakers, given the importance of education for the life chances of individuals in the diverse U.S. society.

Acknowledgments

We gratefully acknowledge support from the Eunice Shriver National Institute of Child Health and Human Development (NICHD) grant R01 HD053696. The University of Colorado Population Center (grant R21 HD51146) and the University of Texas Population Research Center (grant R24 HD42849) generously provided administrative and computing support. And we thank Fernando Riosmena and the referees for their insightful and helpful comments and suggestions on an earlier version of this paper.

References

ALTONJI, JOSEPHG.; BLANK, REBECCAM. Race and gender in the labor market. In: Ashenfelter, O.; Card, D., editors. Handbook of Labor Economics. Vol. 3. 1999. p. 3143-3259.

ARROW, KENNETHJ. The theory of discrimination in the labor market. In: Pascal, AH., editor. Racial Discrimination in Economic Life. Lexington, MA: D.C. Health; 1973. p. 187-204.

AVERITT, ROBERTT. The Dual Economy: The Dynamics of American Industry Structure. New York: W. W. Norton; 1968.

BAE, YUPIN.; CHOY, SUSAN.; GEDDES, CLAIRE.; SABLE, JENNIFER.; SNYDER, THOMAS. National Center for Education Statistics. Washington, DC: USGPO; 2000. Trends in educational equity of girls and women.

BAILEY THOMAS, WALDINGER ROGER. Primary, secondary and enclave labor markets: A training systems approach. American Sociological Review. 1991; 56:432–45.

BANKS JAMES, MARMOT MICHAEL, OLDFIELD ZOE, SMITH JAMESP. Disease and disadvantage in the United States and in England. Journal of the American Medical Association. 2006; 295(17):2037–45. [PubMed: 16670412]

BARROW ROBERTJ, WHA LEE JONG. International data on educational attainment: Updates and implications. Oxford Economic Papers. 2001; 3:541–63.

BERTRAND MARIANNE, MULLAINATHAN SENDHIL. Are Emily and Greg More Employable than Lakisha and Jamal? A field experiment on labor market discrimination. The American Economic Review. 2004; 94(4):99–1013.

BORJAS, GEORGEJ. Immigration and self-selection. In: Abowd, John M.; Freeman, Richard B., editors. Immigration, Trade, and the Labor Market. Chicago, IL: University of Chicago Press; 1991. p. 29-76.

BORJAS GEORGEJ. The labor demand curve *is* downward sloping: Reexamining the impact of immigration on the labor market. The Quarterly Journal of Economics. 2003; 118(4):1335–1374.

BREWER ROSEM, CONRAD CECILIAA, KING MARYC. The complexities and potential of theorizing gender, caste, race, and class. Feminist Economics. 2000; 8(2):3–18.

BREWSTER KARINL, PADAVIC IRENE. Change in gender-ideology, 1977–1996: The contributions of intracohort change and population turnover. Journal of Marriage and Family. 2000; 62:477–87.

BROOKS CLEM, BOLZENDAHL CATHERINE. The transformation of US gender role attitudes: Cohort replacement, social-structural change, and ideological learning. Social Science Research. 2004; 33:106–33.

BROWN, SUSANK.; BEAN, FRANKD. International migration. In: Poston, Dudley L.; Micklin, Michael, editors. Handbook of Population. New York, New York: Springer; p. 347-82.

BROWNE IRENE, MISRA JOYA. The intersection of gender and race in the labor market. Annual Review of Sociology. 2003; 29:487–513.

BUCHMANN CLAUDIA, DIPRETE THOMASA. The growing female advantage in college completion: The role of family background and academic achievement. American Sociological Review. 2006; 71(44):515–41.

BUCHMANN CLAUDIA, DIPRETE THOMAS, MCDANIEL ANNE. Gender inequalities in education. Annual Review of Sociology. 2008; 34:319–37.

CANCIAN FRANCESCAM, GORDON STEVENL. Changing emotion norms in marriage: Love and anger in U.S. women's magazines since 1900. Gender and Society. 1988; 2(5):508–542.

CAMPA JEFF, GOLDBERG LINDAS. The evolving external orientation of manufacturing: A profile of four countries. Economic Policy Review. 1997; 3(2):53–81.

CARLSON, ELWOOD. The Lucky Few: Between the Greatest Generation and the Baby Boom. London, UK: Springer; 2008.

CHISWICK BARRYR, DEBURMAN NOYNA. Educational attainment: Analysis by immigrant generation. Economics of Education Review. 2004; 23:361–379.

CRIMMINS EILEENM. Socioeconomic differentials in mortality and health at the older ages. Genus. 2005; LXI(1):163–77.

DIPRETE THOMASA, BUCHMANN CLAUDIA. Gender-specific trends in the value of education and the emerging gender gap in college completion. Demography. 2006; 43(1):1–24. [PubMed: 16579206]

FELICIANO CYNTHIA. Educational selectivity in U.S. immigration: How do immigrants compare to those left behind? Demography. 2005; 42(1):131–52. [PubMed: 15782899]

FIREBAUGH, GLENN. Methods for estimating cohort replacement effects. In: Clogg, Clifford C., editor. Sociological Methodology. Oxford: Basil Blackwell; 1989. p. 243-62.

FLIGSTEIN, NEIL.; FERNANDEZ, ROBERTOM. Educational transitions of whites and Mexican Americans. In: Borjas, George J.; Tienda, Marta, editors. Hispanics in the US Economy. NY: Academic Press; 1985. p. 161-92.

FREEMAN, CATHERINEA. National Center for Education Statistics. Washington, DC: USGPO; 2004. Trends in educational equity of girls and women: 2004.

FUCHS, VICTORR. The Service Economy. New York and London: Colombia University Press; 1968.

GLICK JENNIFERE, WHITE MICHAELJ. The academic trajectories of immigrant youths: Analysis within and across cohorts. Demography. 2003a; 40(4):759–83. [PubMed: 14686141]

GLICK JENNIFERE, WHITE MICHAELJ. Post-secondary school participation of immigrant and native youth. Social Science Research. 2003b; 33:272–99.

GOLDIN CLAUDIA. The quiet revolution that transformed women's employment, education, and family. American Economic Review. 2006; 34:1–21.

GOLDIN, CLAUDIA.; KATZ, LAWRENCEF. NBER Working Paper 7126. National Bureau of Economic Research; Cambridge, Mass: 1999 May. The returns to skill in the United States across the twentieth century.

GREEMAN EMILY, XIE YU. Double jeopardy? The interaction of gender and race on earnings in the United States. Social Forces. 2008; 86(3):1222–1244.

HAVEMAN ROBERT, WOLFE BARBERAL, SPAULDING JAMES. Educational achievement and childhood events and circumstances. Demography. 1991; 28:133–58. [PubMed: 2015940]

HIRSCHMAN CHARLES. The educational enrollment of immigrant youth: A test of the segmented assimilation hypothesis. Demography. 2001; 38(3):317–36. [PubMed: 11523261]

Howell DR, Wolff EN. Trends in Growth and Distribution of Skills in the U.S. Workplace, 1960–1985. Industrial and Labor Relations Review. 1991; 44(3):186–502.

HUDSON, LISA.; AQUILINO, SALLY.; KIENZL, GREGORY. Postsecondary participation rates by sex and race/ethnicity: 1974–2003. Washington DC: National Center for Education Statistics; 2005.

HUMMER ROBERT, ROGERS RICHARDG, EBERSTEIN ISAACE. Sociodemographic differentials in adult mortality: A review of analytic approaches. Population and Development Review. 1998; 24:553–78.

HURTADO-ORITZ MARIAT, GAUVAIN MARY. Secondary education among Mexican American Youth: Contributions of Parents, Siblings, Acculturation, and Generational Status. Hispanic Journal of Behavioral Sciences. 2007; 29:181–191.

KANE, THOMASJ.; ORSZAG, PETERR.; GUNTER, DAVIDL. Brookings Policy Brief No 124. Washington, DC: Brookings Institution; 2003. State fiscal constraints and higher education spending: The role of Medicaid and the business cycle.

KAREN DAVID. Changes in access to higher education in the United States: 1980–1992. Sociology of Education. 2002; 75(3):191–210.

KAUFMAN JULIA. The interplay between social and cultural determinants of school effort and success: An investigation of Chinese immigrant and second-generation Chinese Students' perceptions toward school. Social Science Quarterly. 2004; 85(5):1275–98.

KENT MARYMEDERIOS. Immigration and America's black population. Population Bulletin. 2007; 62(4):1–16.

KORN, EDWARDL.; GRAUBARD, BARRYI. Analysis of Health Surveys. New York: Wiley; 1999.

LEE JAEKYUNG. Racial and ethnic achievement gap trends: Reversing the progress towards equity? Educational Researcher. 2002; 31(1):3–12.

LEVY FRANK, MURNAME RICHARDJ. U.S earnings levels and earnings inequality: A review of recent trends and proposed explanations. Journal of Economic Literature. 1992; 30(3):1333–1381.

LINK BRUCEG, PHELAN JOC. Social conditions as fundamental cause of disease. Journal of Health and Social Behavior. 1995; 35:80–94. [PubMed: 7560851]

LOCHNER LANCE, MORETTI ENRICO. The effect of education on crime: Evidence from prison inmates, arrests, and self-reports. American Economic Review. 2004; 94(1):155–189.

LONG LARRYH. Migration differentials by education and occupation-trends and variations. Demography. 1973; 10:243–58. [PubMed: 4789435]

LOPEZ, NANCY. Hopeful Girls, Troubled Boys: Race and Gender Disparity in Urban Education. New York: Routledge; 2003.

MARTIN TERESAC, BUMPASS LARRYL. Recent trends in marital disruption. Demography. 1989; 26:37–51. [PubMed: 2737357]

MASON KARENOPPENHIEM, LU YU-HSIA. Attitudes toward women's familial roles: Changes in the United States, 1977–1985. Gender and Society. 1988; 2(1):39–57.

MASON PATRICKL. Race, competition and differential waves. Cambridge Journal of Economics. 1995; 19:545–67.

MASSEY DOUGLASS. The new immigration and ethnicity in the United States. Population and Development Review. 1995; 21(3):631–652.

MASSEY, DOUGLASS. Why does immigration occur? A theoretical synthesis. In: Hirschman, Charles; Dewind, Josh; Kasinitz, Philip, editors. Handbook of International Migration. New York: Russell Sage Foundation; 1999. p. 34-52.

MCCALL LESLIE. The complexity of intersectionality. Signs. 2005; 30(3):1771–1800.

MIROWSKY JOHN, ROSS CATHERINEE. Education, personal control, lifestyle and health: A human capital hypothesis. Research on Aging. 1998; 20(4):415–49.

NATIONAL CENTER FOR HEALTH STATISTICS. National health interview survey: Research for the 1995–2004 redesign. Vital and Health Statistics. 1999; 2(126):1–121.

NATIONAL CENTER FOR HEALTH STATISTICS. NHIS survey description, National Health Interview Survey, 1999 (machine readable documentation). National Center for Health Statistics; Hyattsville, Maryland: 2002.

OECD. Employment Outlook. Paris: OECD; 2000.

ORFIELD, GARY.; LOSEN, DANIEL.; WALD, JOANNA.; SWANSON, CHRISTOPHERB. Losing our future: How minority youth are being left behind by the graduation rate crisis. Cambridge, MA: The Civil Rights Project at Harvard University; 2004.

PERREIRA KRISTAM, HARRIS KATHLEENM, LEE DOHOON. Making it in America: High school completion by immigrant and native youth. Demography. 2006; 43(3):511–36. [PubMed: 17051825]

PETER, KATHERINE.; HORN, LAURA.; CARROLL, CDENNIS. National Center for Education Statistics (NCES 2006-169). Washington DC: USGPO; 2005. Gender differences in participation and completion of undergraduate education and how they have changed over time.

PETTIT BECKY, WESTERN BRUCE. Mass imprisonment and the life course: Race and class inequality in U.S. incarceration. American Sociological Review. 2004; 69:151–69.

PHELPS EDMUNDS. The statistical theory of racism and sexism. American Economic Review. 1973; 62:659–61.

PORTES ALEJANDRO, FERNANDEZ-KELLY PATRICIA, HALLER WILLIAM. Segmented assimilation on the ground: The new second generation in early adulthood. Ethnic and Racial Studies. 1995; 28(6):1000–40.

PORTES ALEJENDRO, GROSFOGUEL RAMON. Caribbean diasporas: Migration and ethnic communities. The ANNALS of the American Academy of Political and Social Science. 1994; 533(48):48–69.

RINDFUSS RONALDR, MORGAN PHILLIPS, OFFUTT KATE. Education and the changing age pattern of American fertility: 1963–1989. Demography. 1996; 33:277–90. [PubMed: 8875062]

ROGERS, RICHARDG.; HUMMER, ROBERTA.; NAM, CHARLESB. Living and Dying in the USA: Behavioral, Health, and Social Differentials of Adult Mortality. New York: Academic; 2000.

RONG XUELAN, GRANT LINDA. Ethnicity, generation, and school attainment of Asians, Hispanics, and Non-Hispanic whites. Sociological Quarterly. 1992; 33:625–36.

RUMBAUT, RUBENG. The new Californians: Comparative research findings on the educational progress of immigrant children. In: Rumbaut, Ruben G.; Cornelios, Wayne, editors. California Immigrant Children: Theory, Research and Implications for Educational Policy. La Jolla: Center for U.S.-Mexican Studies; 1995. p. 17-70.

RUMBAUT, RUBENG. Ties that bind: Immigration and immigrant families in the United States. In: Crouter, Alan; Crouter, Ann C.; Landale, Nancy, editors. Immigration and the Family: Research and Policy on US Immigrants. Mahwah, NJ: Lawrence Erlbaum; 2005. p. 3-46.

SLAUGHTER, MATTHEWJ.; SWAGEL, PHILLIP. Does globalization lower wages and export jobs?. Washington DC: International Monetary Fund; 1997.

SMITH JAMESP. Unraveling the SES-health connection. Population and Development Review. 2005; 31:108–32.

SOUTH SCOTTJ, HAYNIE DANAL, BOSE SUNITA. Student mobility and school dropout. Social Science Research. 2007; 36(1):68–94.

STANELY TD, JARRELL STEPHENB. Gender Wage Discrimination Bias? A meta-regression analysis. Journal of Human Resources. 1998; 33(4):947–73.

STATACORP. Stata Statistical Software: Release 10.0. College Station, TX: StataCorp LP; 2007.

TOLBERT CHARLES, HORAN PATRICKM, BECK EM. The structure of economic segmentation: A dual economy approach. American Journal of Sociology. 1980; 85(5):1095–116.

U.S. CENSUS BUREAU. Current Population Reports, Series P23-206. Washington, DC: USGPO; 2001. Profile of the foreign-born population in the United States: 2000.

VENTURA STEPHANIEJ. Births to unmarried mothers: United States, 1980–92. Vital Health Statistics. 1995; 53:1–55.

WEBER, LYN. Understanding Race, Class, Gender, and Sexuality: A Conceptual Framework. Boston: McGraw Hill; 2001.

WOJTKIEWICZ ROGERA, DONATO KATHARINEM. Hispanic educational attainment: The effect of family background and nativity. Social Forces. 1995; 74(2):559–74.

Table 1

Average Levels of Educational Attainment

	U.S.-born	Foreign Born
Non-Hispanic White		
Male	13.38	13.85
Female	13.11	12.96
Non-Hispanic Black		
Male	12.07	13.34
Female	12.26	12.65
Asian American		
Male	14.48	14.69
Female	13.97	13.37
Native American		
Male	11.87	
Female	11.96	
Mexican American		
Male	11.52	8.29
Female	11.28	8.22
Puerto Rican		
Male	12.68	10.64
Female	12.43	10.51
Cuban American		
Male	13.30	11.75
Female	13.55	11.37

Note: Foreign-born Native Americans are excluded

Source: Derived from NHIS, various years.

TABLE 2

Ordinary Least Squares Regression Coefficients for Demographic Covariates Predicting Educational Attainment among U.S. Adults Aged 25 and Over

N=921,061	
First order terms	
Male	0.29 ***
Black	−2.10 ***
Asian	−0.12
Native American	−1.98 ***
Mexican American	−4.32 ***
Puerto Rican	−0.94 **
Cuban	−0.74 *
Foreign born	−0.61 ***
Cohort (born 1909–1928)	
Born 1929–1945	0.50 ***
Born 1946–1964	1.01 ***
Born 1965–1982	1.10 ***
Age (25–39)	
40 to 59	0.01
60 to 74	−0.43 ***
75 plus	−1.03 ***
Second order interactions	
Born 1929–1945 * Black	0.91 ***
Born 1929–1945 * Asian	0.76 ***
Born 1929–1945 * Native Amer.	0.36
Born 1929–1945 * Mexican Amer.	1.55 ***
Born 1929–1945 * Puerto Rican	−0.18
Born 1929–1945 * Cuban	0.65
Born 1946–1964 * Black	1.35 ***
Born 1946–1964 * Asian	0.90 ***
Born 1946–1964 * Native Amer.	0.80 +
Born 1946–1964 * Mexican Amer.	2.59 ***
Born 1946–1964 * Puerto Rican	−0.13
Born 1946–1964 * Cuban	1.15 ***
Born 1965–1982 * Black	1.34 ***
Born 1965–1982 * Asian	1.34 ***
Born 1965–1982 * Native Amer.	0.90 *
Born 1965–1982 * Mexican Amer.	2.60 ***

N=921,061	
Born 1965–1982 * Puerto Rican	−0.42
Born 1965–1982 * Cuban	1.14 **
Male * Black	−0.40 ***
Male * Asian	0.28 **
Male * Native Amer.	−0.28 ***
Male * Mexican Amer.	0.03
Male * Puerto Rican	0.16 +
Male * Cuban	−0.44 *
Male * Born 1929–1945	0.15 ***
Male * Born 1946–1964	−0.16 ***
Male * Born 1965–1982	−0.46 ***
Foreign born * Male	0.83 ***
Foreign born * Born 1929–1945	0.15 +
Foreign born * Born 1945–1964	0.90 ***
Foreign born * Born 1964–1982	1.16 ***
Foreign born * Black	0.97 ***
Foreign born * Asian	−1.54 ***
Foreign born * Mexican	−1.83 ***
Foreign born * Puerto Rican	−3.25 ***
Foreign born * Cuban	−0.74 +
Third order interactions	
Foreign born * Male * Black	0.48 ***
Foreign born * Male * Asian	0.43 ***
Foreign born * Male * Mexican	−0.53 ***
Foreign born * Male * Puerto Rican	−0.75 ***
Foreign born * Male * Cuban	−0.13
Foreign born * Black * Born 1929–1945	−0.87 ***
Foreign born * Black * Born 1946–1964	−1.11 ***
Foreign born * Black * Born 1965–1982	−1.36 ***
Foreign born * Asian * Born 1929–1945	0.74 **
Foreign born * Asian * Born 1946–1964	0.50 +
Foreign born * Asian * Born 1965–1982	0.68 *
Foreign born * Meixan * Born 1929–1945	−1.68 ***
Foreign born * Mexican * Born 1946–1964	−2.21 ***
Foreign born * Mexican * Born 1965–1982	−1.28 ***
Foreign born * Puerto Rican * Born 1929–1945	1.19 *

N=921,061	
Foreign born * Puerto Rican * Born 1946–1964	1.97 ***
Foreign born * Puerto RIcan * Born 1965–1982	2.64 ***
Foreign born * Cuban * Born 1929–1945	−1.16 *
Foreign born * Cuban * Born 1946–1964	−0.61
Foreign born * Cuban * Born 1965–1982	−1.11 *
Foreign * Male * Born 1929–1945	−0.21 +
Foreign * Male * Born 1946–1964	−0.44 ***
Foreign * Male * Born 1965–1982	−0.57 ***
Control variables	
Year	0.04 ***
Education question change (=1)	−0.06
Intercept	12.33 ***
R^2	0.15

* p≤.05;

** p≤.01;

*** p≤.001 (two-tailed tests)

Note: Foreign-born Native Americans are excluded because of small sample sizes.

Source: Derived from NHIS, various years.

Table 3

Predicted Years of Educational Attainment for U.S. Adults Aged 25 and Above by Race/Ethnicity, Birth Cohort,

	Non-Hispanic White	Non-Hispanic Black	Asian American	Native American	Mexican American	Puerto Rican	Cuban American
Panel A: U.S.-Born Individuals							
Born 1909–1928							
Men	12.09	9.62	12.24	9.86	7.76	11.33	10.83
Women	11.77	9.71	11.64	9.84	7.43	10.82	11.01
Born 1929–1945							
Men	13.33	11.74	14.24	11.43	10.56	12.34	12.80
Women	12.89	11.68	13.52	11.28	10.08	11.72	12.78
Born 1946–1964							
Men	13.73	12.74	14.78	12.27	11.78	12.88	13.82
Women	13.60	12.73	14.26	12.30	11.75	12.41	13.89
Born 1965–1982							
Men	13.59	12.43	15.09	12.22	11.90	12.38	13.55
Women	13.74	12.99	14.96	12.65	12.02	12.39	14.14
Δ Born 1909–1928 – Born 1965–1982							
Men	1.50	2.81	2.85	2.36	4.13	1.06	2.72
Women	1.97	3.28	3.32	2.81	4.59	1.57	3.13
Panel B: Foreign-Born Individuals							
Born 1909–1928							
Men	12.28	11.26	11.33	---	5.58	7.50	10.20
Women	11.17	10.06	9.51	---	4.95	6.98	9.65
Born 1929–1945							
Men	13.48	12.46	14.03	---	6.67	9.69	10.90
Women	12.35	11.25	12.20	---	6.04	9.14	10.27
Born 1946–1964							
Men	14.41	13.61	14.86	---	8.15	11.47	12.90
Women	13.86	13.00	13.63	---	7.61	11.54	12.95
Born 1965–1982							
Men	14.39	13.32	15.46	---	9.06	11.83	12.37

	Non-Hispanic White	Non-Hispanic Black	Asian American	Native American	Mexican American	Puerto Rican	Cuban American
Women	14.30	13.14	14.66	---	9.47	12.33	12.86
Δ Born 1909–1928 – Born 1965–1982							
Men	2.11	2.07	4.13	---	3.48	4.32	2.17
Women	3.13	3.09	5.15	---	4.52	5.35	3.21

Note: Foreign-born Native Americans are excluded because of small sample sizes.

Source: Derived from Table 2