

The Educational Progress of U.S.-Born Mexican Americans

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Among U.S. racial/ethnic groups, persons of Mexican origin make up one of the largest groups, and they rank near the bottom in educational attainment. In part, this reflects the sizeable population of Mexican immigrants with very low schooling levels, but significant educational deficits exist even for Mexican Americans who were born and raised in the United States. The schooling disadvantage of Mexican Americans accounts for much of their earnings gap relative to non-Hispanic whites (Duncan, Hotz, and Trejo 2006; Duncan and Trejo 2018).

In this paper, we track changes in the educational attainment of U.S.-born Mexican Americans over seven decades. We compare the schooling gains of Mexican Americans with the corresponding gains made by African Americans and by non-Hispanic whites. Numerous studies have charted the long-term educational progress of African Americans (Smith and Welch 1989, Collins and Margo 2006; Neal 2006), but there is a dearth of comparable research for Mexican Americans (although see Smith 2003, 2006).

I. Data

We analyze microdata from the decennial U.S. Censuses of 1970-2000 and the American Community Survey (ACS) from 2006-2017.¹ In each survey, we limit our analysis sample to

¹ The data were accessed through IPUMS-USA (<https://usa.ipums.org/usa/>). The 1970 Census data are from the “Form 1 State Sample” (also known as the “5% Questionnaire State Sample”) and constitute a one percent sample of the population.

U.S.-born individuals between the ages of 25-59 (including those residing in group quarters) who are members of one of the following racial/ethnic groups: Mexican American, non-Hispanic black, or non-Hispanic white.² In these data, we define the birth year of each individual as

$$\text{Birth Year} = \text{Survey Year} - \text{Age} - 1 .$$

Because we know each respondent's current age but not their birthday, our measure of birth year is approximate.³

Pooling data from all of our survey years, we estimate how educational outcomes have evolved across cohorts defined by birth year. We construct these estimates separately by sex and by race/ethnicity. We limit this analysis to individuals with birth years between 1920 and 1990.⁴ For any given birth cohort, educational attainment tends to rise with the age at which the cohort is observed. To standardize for age effects, we report predicted educational outcomes at age 35 for each birth year. These predictions derive from least squares regressions of educational outcomes on a quartic in age and dummy variables identifying cells defined by the three-way interaction of sex, race/ethnicity, and birth year. We present results for three measures of

The 1980, 1990, and 2000 Census data are five percent samples and the 2006-2017 ACS data are one percent samples. Sampling weights were used in all calculations.

² Hispanics, in general, and Mexican Americans, in particular, are identified by responses to questions regarding Spanish/Hispanic origin or descent. In Census and ACS data, these questions are the best way to identify U.S.-born adults of Mexican descent. The use of these "subjective" measures of racial/ethnic identification, however, introduces biases from ethnic attrition that likely lead to understated estimates of attainment for Mexican Americans (Duncan and Trejo 2011, 2017; Duncan *et al.* 2020).

Blacks and whites are identified by responses to the race question. Starting in 2000, the Census and ACS permit respondents to designate more than one race. In these surveys, our "black" category includes all individuals who give this response, even if they also give other (i.e., non-black) race responses. Our "white" category, however, includes only individuals who give this response and do not report another major race group. In the 2010 Census, just 2.3 percent of non-Hispanics designated more than one major race group (Humes, Jones, and Ramirez 2011). Consequently, decisions regarding how to categorize mixed-race individuals have little impact on the results.

³ In Census data, the survey date of April 1 implies that the assigned birth year is correct for roughly 75 percent of the sample and it is one year too low for the other 25 percent of the sample. Data collection for the ACS takes place continuously throughout the year, however, and so in these data our assigned birth year is correct for roughly half of the sample and it is one year too low for the other half.

⁴ Given the survey years of our data and the age restrictions imposed in each survey year, these are the birth years that we observe in at least two different survey years.

educational attainment: average completed years of schooling, the fraction of individuals who have completed high school, and the fraction of individuals who have completed a bachelor's degree in college.⁵

II. Results

Figure 1 displays average years of schooling by birth year for Mexican Americans, blacks, and whites. The top panel shows the estimates for men, and the bottom panel provides the same information for women. This figure documents the enormous educational gains realized by Mexican Americans. The top panel indicates that, among men born in the early 1920s, Mexican Americans average barely seven years of schooling, a deficit of four years relative to whites and more than a year relative to blacks. Among men born in the late 1980s, however, the deficit relative to whites has shrunk to just one year and Mexican Americans average slightly more than 13 years of schooling, very similar to blacks. Most of the schooling convergence achieved by Mexican Americans, relative to either whites or blacks, takes place for men born prior to the mid-1950s. The bottom panel reveals very similar patterns for women, except that the initial schooling deficits for Mexican-American women born in the early 1920s are even larger than those for men (i.e., initial deficits for Mexican-American women of about five years relative to whites and three years relative to blacks).

Figure 2 presents comparable information for a different measure of educational attainment—high school completion—and the broad patterns closely resemble what we just saw

⁵ The 1970 and 1980 Census collected information about years of schooling, whereas the 1990 and 2000 Census and the ACS asked specifically about degree attainment. In the 1970 and 1980 Census data, we define high school completers as those who have completed at least 12 years of schooling, and we define college completers as those who have completed at least 16 years of schooling. In the 1990 Census and later data, high school completers are those who report having a high school diploma or General Equivalency Diploma (GED), and college completers are those who report having a bachelor's degree or higher. We follow Jaeger's (1977) recommendations for how to construct a completed years of schooling variable in Census and ACS data from 1990 onward.

in Figure 1 for average years of schooling. For Mexican Americans, high school completion rates steadily climb from below 20 percent for those born in 1920 to around 90 percent for those born in 1990, and over the same period the graduation deficit relative to whites falls from more than 40 percentage points to less than 8 percentage points, and the corresponding deficit relative to blacks all but disappears. Our finding of long-term advances in high school completion by Mexican Americans complements evidence of recent gains made by U.S.-educated Hispanics (Murnane 2013, Gramlich 2017).

Figure 3 indicates that different patterns emerge for rates of bachelor's degree completion, a measure that focuses on the upper end of the educational distribution.⁶ As we also saw for the other education measures, rates of college completion for Mexican Americans steadily rise across birth cohorts, from almost zero initially to 20 percent or more for those born in the late 1980s. In this case, however, there is no convergence toward the rates observed for whites. Instead, gaps in college completion between Mexican Americans and whites have widened over time, especially for women. Among those born in the late 1980s, Mexican Americans are only half as likely as whites to obtain a bachelor's degree. Rates of college completion are quite similar for Mexican-American and black men in a given birth cohort, whereas among women blacks hold a roughly four percentage point advantage over Mexican Americans that does not vary much across birth cohorts.

Finally, Figure 4 highlights important historical differences in educational attainment between Mexican Americans born in California and those born in Texas, states that together are home to over 70 percent of U.S.-born Mexican Americans. Among Mexican Americans born in the early 1920s, Californians average three more years of schooling than do Texans. Over time,

⁶ The fraction of individuals with at least some college—a measure of college enrollment rather than completion—displays patterns similar to those shown in Figure 3 for college completion.

however, this initially huge gap steadily narrows until it disappears for those born in the mid-1970s and later.

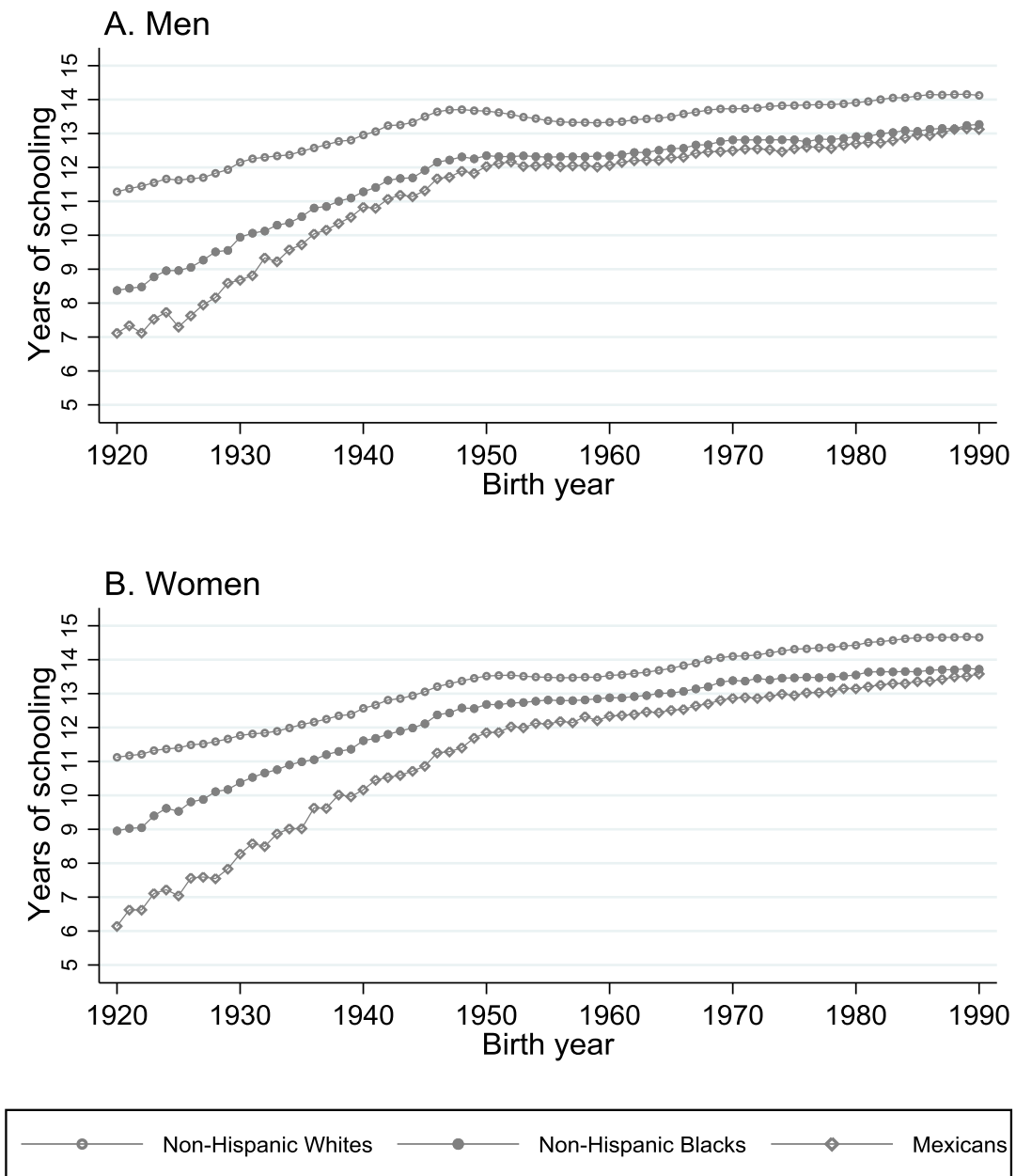
In summary, this descriptive analysis of the educational attainment of U.S.-born Mexican Americans over seven decades has produced several significant findings. First, Mexican Americans have experienced enormous gains and have closed most of their large initial schooling deficit relative to non-Hispanic whites and all of their deficit relative to African Americans. Second, progress for Mexican Americans has been greatest in the lower tail of the schooling distribution. For many years, rates of high school completion were dramatically lower for Mexican Americans than for other Americans, but this gap is much smaller for recent birth cohorts. In contrast, although rates of college enrollment and college completion have been rising for Mexican Americans, these rates still fall far short of the corresponding rates for non-Hispanic whites. Finally, the initial schooling deficits and subsequent gains of Mexican Americans vary with their state of birth. These geographic differences suggest the potential importance of state-specific policies and institutions for shaping the educational progress of Mexican Americans.

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Figure 1: Average Years of Schooling by Birth Year, Sex, and Race/Ethnicity



Source: 1970-2000 Census data and 2006-2017 American Community Survey data.

Note: The sample includes U.S.-born individuals ages 25-59 with birth years between 1920 and 1990 who are members of one of the following racial/ethnic groups: Mexican American, non-Hispanic black, or non-Hispanic white. The plots show predicted average years of schooling at age 35 for each birth year. These predictions derive from least squares regressions of completed years of schooling on a quartic in age and dummy variables identifying cells defined by the three-way interaction of sex, race/ethnicity, and birth year.

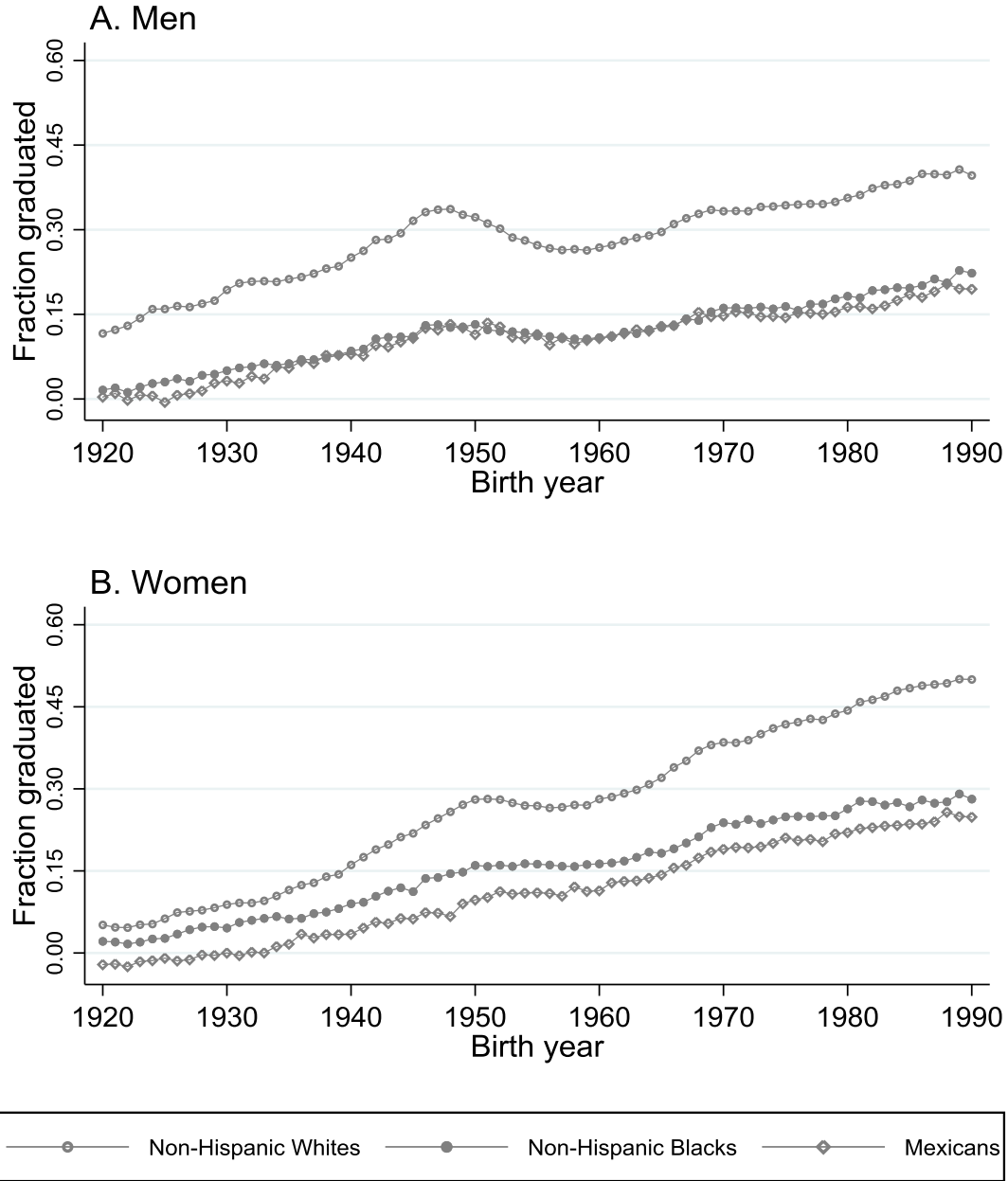
Figure 2: High School Completion Rates by Birth Year, Sex, and Race/Ethnicity



Source: 1970-2000 Census data and 2006-2017 American Community Survey data.

Note: The sample includes U.S.-born individuals ages 25-59 with birth years between 1920 and 1990 who are members of one of the following racial/ethnic groups: Mexican American, non-Hispanic black, or non-Hispanic white. The plots show predicted high school completion rates at age 35 for each birth year. These predictions derive from least squares regressions of an indicator for high school completion on a quartic in age and dummy variables identifying cells defined by the three-way interaction of sex, race/ethnicity, and birth year.

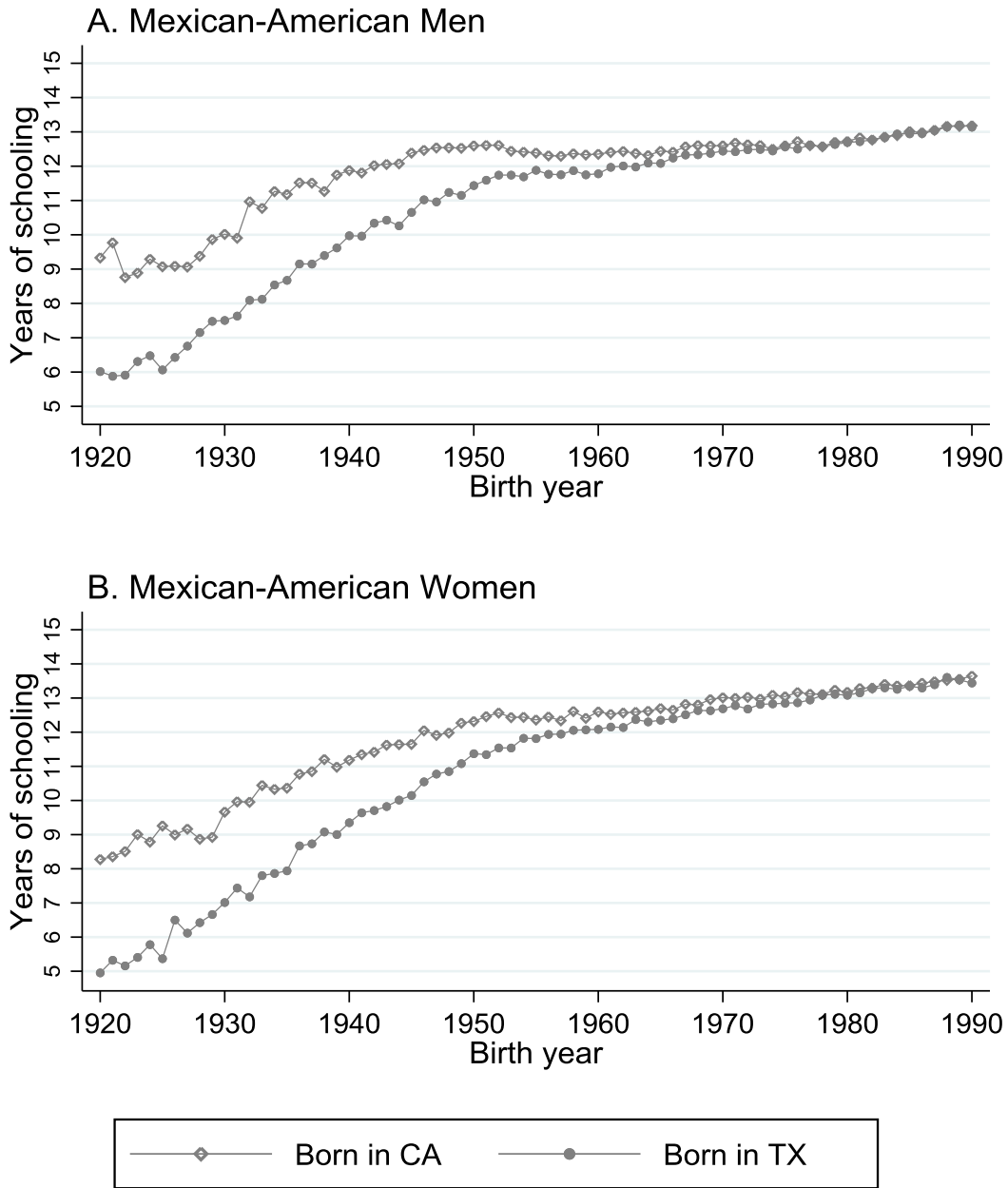
Figure 3: College Completion Rates by Birth Year, Sex, and Race/Ethnicity



Source: 1970-2000 Census data and 2006-2017 American Community Survey data.

Note: The sample includes U.S.-born individuals ages 25-59 with birth years between 1920 and 1990 who are members of one of the following racial/ethnic groups: Mexican American, non-Hispanic black, or non-Hispanic white. The plots show predicted college completion rates at age 35 for each birth year. These predictions derive from least squares regressions of an indicator for completion of a bachelor's degree on a quartic in age and dummy variables identifying cells defined by the three-way interaction of sex, race/ethnicity, and birth year.

Figure 4: Average Years of Schooling of Mexican-Americans, by Birth Year, Sex, and Birth State



Source: 1970-2000 Census data and 2006-2017 American Community Survey data.

Note: The overall sample includes U.S.-born individuals ages 25-59 with birth years between 1920 and 1990 who are members of one of the following racial/ethnic groups: Mexican American, non-Hispanic black, or non-Hispanic white. The plots are for Mexican Americans born in California or Texas, and they show predicted average years of schooling at age 35 for each birth year. These predictions derive from least squares regressions of completed years of schooling on a quartic in age and dummy variables identifying cells defined by the four-way interaction of sex, race/ethnicity, birth year, and state of birth.