

Mexican American Educational Stagnation: The Role of Family Structure Change

Richard N. Turner¹, Brown University
Brian C. Thiede, Cornell University

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¹ Direct all correspondence to: Richard Turner; 309 Maxy Hall, Brown University, Providence, RI 02912;
richard_turner@brown.edu

Abstract

Mexican American high school dropout rates decline markedly between the first and second immigrant generations and, consequently, move closer to non-Hispanic white levels. However, the third generation makes little progress in closing the remaining gap with whites despite their parents having more schooling than those of the second on average. With the 2007-2013 March files of the Current Population Survey, we examine whether an intergenerational shift away from nuclear parenting contributes to this educational stagnation. We also consider the effect of changes in sibship size. The analysis involves performing decompositions and estimating hypothetical log odds of high school dropout for US-born adolescents (ages 16-17) of Mexican heritage. We find that Mexican third-generation teens are 16 percentage points less likely than second-generation peers to live with both biological parents but also have fewer co-resident siblings overall. Collectively, these family structure differences appear to partly counteract the ameliorative influence of rising parental education on third-generation dropout.

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INTRODUCTION

In the wake of recent dramatic growth in the Mexican-origin population of the US, there is increasing interest in the educational assimilation of Mexican Americans.² High school completion patterns have drawn an especially large amount of attention from researchers. Findings consistently show that the high school dropout rates of Mexican-origin adolescents decline markedly between the first and second immigrant generations and thus move closer to the levels observed for non-Hispanic whites (widely regarded as representing the social mainstream). However, members of the third generation make no significant progress toward closing the high school completion gap with whites.³ This stagnation in third-generation educational attainment is particularly surprising given that parental education among the generation is, on average, higher than among the second generation.

In this paper, we use the 2007-2013 March Supplement files of the Current Population Survey (CPS) to examine the extent to which intergenerational shifts in family structure account for the persistence in high school non-completion among US-born Mexican Americans. It is expected that a greater likelihood of living in a non-nuclear family (step- or single-parent) on the part of third-generation youth raises their dropout risk relative to the second generation, thereby offsetting corresponding improvement in parental human capital. Simultaneous declines in sibship size may moderate the total impact of family change, however. In assessing our hypotheses, we employ decomposition and regression techniques to measure the relative contributions of changes in parental education and family structure between the second and third immigrant generations to the observed high school dropout disparity. To preview the results, we

² “Mexican American” is used here to refer to all people of Mexican heritage residing in the US.

³ “In this paper, “whites” refers only to non-Hispanic whites.

find that Mexican third-generation teens are 16 percentage points less likely than second-generation peers to live with both biological parents but also have fewer co-resident siblings overall. Our estimates suggest that these family structure differences, taken together, counteract a significant portion of the negative influence of rising parental education on the third-generation's dropout risk.

BACKGROUND

Patterns of Mexican American High School Completion

The rapid expansion of the Mexican American population has drawn the attention of scholars and the general public to the integration of this demographic group into the broader US society. Much research on the topic focuses on patterns of educational attainment, particularly high school completion (Bachmeier & Bean, 2011; Fry, 2003; Grogger & Trejo, 2002; Landale, Oropesa, & Llanes, 1998; Oropesa & Landale, 2009; President's Advisory Commission, 2003; Reed, Hill, Jepsen, & Johnson, 2005). Consistent with the large numbers of manual laborers in the Mexico-to-US migration stream, this work demonstrates that Mexican Americans drop out of high school at significantly higher rates than non-Hispanic whites. However, these rates vary by immigrant generation: US-born Mexican Americans are at a substantially lower risk of dropping out than their foreign-born co-ethnics - as is predicted by classical assimilation theory (Gordon, 1964; Waldinger & Perlmann, 1998). For instance, Fry (2003) estimates that 15 percent of US-born Mexican-origin youth (16-19 years old) were high school dropouts in 2000, versus 39 percent of Mexican immigrants. Contradicting straight-line models of immigrant incorporation, though, the decline in dropout is concentrated between the first and second immigrant generations, with little to no improvement observed among the third generation. Consequently, even Mexican Americans with two US-born parents lag behind whites in high school enrollment

and graduation (Bachmeier & Bean, 2011; Grogger & Trejo, 2002; Landale, Oropesa, & Llanes, 1998).

This intergenerational persistence of dropout is somewhat surprising as there is a widely-documented positive relationship between the educational attainment of parents and that of their children, and third generation Mexican Americans have better educated parents on average than second generation peers (Grogger & Trejo, 2002). Indeed, studies probing the demographic sources of Mexican-white or Hispanic-white dropout disparities suggest that expansions of parental human capital across Mexican immigrant generations boosts the high school completion rates of Mexican-origin youth (e.g. Landale, Oropesa, & Llanes, 1998; Perreira, Harris, & Lee, 2006).

Declining motivation is a possible reason for the slowing of educational progress among Mexican Americans. Kao and Tienda's (1995) "immigrant optimism" hypothesis holds that foreign-born individuals are typically confident that their offspring will prosper in the US because the former use the more difficult social and material conditions in their countries of origin as a point of reference and lack knowledge of race-related obstacles to socioeconomic mobility within American society. Moreover, immigrant parents may pass their optimism onto their children and thereby enhance the educational outcomes of first- and second- generation youth. Nevertheless, there is also an expectation that such positive outlooks fade among the US-born, reducing the optimism (and related behaviors) of third-generation adolescents. The immigrant optimism hypothesis predicts that the second generation has the lowest overall dropout rate of the three groups because members possess the dual advantages of learning English from birth *and* having access to optimistic parents, unlike the first and third generations respectively (Kao & Tienda, 1995). Empirical corroboration of Kao and Tienda's argument is

growing (Driscoll, 1999; Oropesa & Landale, 2009; Perreira, Harris, & Lee, 2006). For instance, Driscoll (1999) finds that second generation Hispanic youth are only around half as likely to drop out of high school as third generation counterparts after controlling for a host of variables measuring family socioeconomic resources and composition (p. 869).

The Role of Family Structure Change

Intergenerational shifts in family composition also potentially constitute an important barrier to the educational assimilation of the Mexican-origin population. A key finding emerging from the literature on ethnoracial differences in family patterns is the “paradox of Mexican American nuptiality”: US residents of Mexican heritage are about as likely to be married as non-Hispanic whites even though they possess fewer economic resources on average (Oropesa, Lichter, and Anderson, 1994). Mexican-white parity is somewhat unexpected because African Americans’ low levels of marriage in comparison to whites have been attributed to similarly unfavorable economic circumstances. Yet despite high overall nuptiality within the Mexican-origin population, there are sharp differences between Mexican immigrant generations in marital behavior. US-born Mexican Americans are substantially less likely to be married (Landale & Oropesa, 2007; Raley, Durden, & Wildsmith, 2004) and more likely to experience marital disruption (Phillips & Sweeney, 2006) than foreign-born Mexicans. For instance, Raley, Durden, and Wildsmith (2004) estimate that 60 percent of US-born Mexican American women age 25-29 had ever wed as opposed to 75 percent of their immigrant counterparts (p. 880). Additionally, Phillips and Sweeney (2006) find that married Mexican American women born in the US are more than four times as likely to divorce or separate from their spouse over the course of a year as are foreign-born peers (p. 416).

Childbearing is another aspect of family diversity among US residents of Mexican origin. Although Mexican Americans on the whole have higher fertility rates than non-Hispanic whites, later-generation Mexican Americans have fewer children on average than foreign-born co-ethnics (Frank & Heuveline, 2005; Parrado & Morgan, 2008; Parrado, 2011; Pew Hispanic Center, 2011; Stephen & Bean, 1992). To illustrate, Parrado (2011) estimates that the average Mexican immigrant woman age 40-44 in 2006-2008 had 2.6 children over her lifetime, compared to 2.2 among US-born Mexican Americans (p. 1069).

Theories that attempt to account for generational trajectories in Mexican American family structure can usually be classified as either “cultural” or “structural.” Culture-oriented theories attribute variation in family behaviors to heterogeneity in beliefs relating to kinship. The concept of “familism” plays a crucial role here. Familism is a value orientation commonly associated with traditional Mexican culture that assigns greater weight to kin roles and needs than to the interests of the individual and, as such, encourages marriage and fertility (Landale & Oropesa 2007). Work in this area often hypothesizes that familistic outlooks underlie the relatively high marriage and fertility rates observed in the general Mexican-origin population and, conversely, that declines in nuptiality and childbearing across Mexican immigrant generations stem from attenuation in familism accompanying the assimilation process (Landale, Schoen, and Daniels, 2010; Oropesa & Landale, 2004). Structural theories, in contrast, look to inequalities in socioeconomic constraints or circumstances to explain the distinctive family patterns of Mexican Americans (Frank & Heuveline, 2005; Raley, Durden, & Wildsmith, 2004). This perspective interprets interethnic and generational differences in family formation as a reflection of adaptation to divergent material conditions. For example, Raley, Durden, and Wildsmith (2004) argue that Mexican-origin women’s low mean age at departure from school

raises their marriage rates relative to whites. Both culture- and structure-oriented theories have received empirical support.

Regardless of the underlying causes, there is reason to think that intergenerational transformations in family structure among Mexican Americans have an important influence on the educational assimilation of this population. The negative correlations within the Mexican-origin demographic between US nativity and the probabilities of being married and staying married suggest that third-generation Mexican-origin individuals (who, by definition, have two US-born parents) are more likely than second-generation counterparts to grow up without both of their biological parents. Similarly, the dip in fertility following the first immigrant generation indicates that third-generation Mexican American youth typically have fewer siblings than do members of the second generation. Such differentials could have major implications because previous research documents strong associations between parental structure and sibship size on the one hand and youth educational performance on the other. Children who are raised in non-nuclear homes obtain less schooling on average than counterparts reared by both biological parents - an association that appears to stem in large part from a tendency for non-nuclear families to possess fewer economic resources (Astone & McLanahan, 1991; McLanahan, 1985; Sandefur & Wells, 1999). Furthermore, there is much evidence that having more siblings imposes an educational attainment cost on youth (Downey, 1995; Mare & Tzeng, 1989; Powell & Steelman, 1993). The leading explanation for the inverse relationship between sibship size and education is the “resource dilution” hypothesis (Steeleman et al., 2002). This argument holds that the amount of time, energy, and money that parents can devote to their children is finite. Therefore, as the number of children in the household grows, the quantity of resources provided to each declines, reducing their probability of scholastic success.

Together, these strands of research imply two family-related drivers of intergenerational change in educational attainment among Mexican-American youth. First, an increase in the likelihood of living in a non-nuclear household from the second generation to the third may increase the latter's relative rate of high school dropout. Second, a decrease in the mean number of siblings between generations may reduce the third generation's dropout rate compared to the second. Under these circumstances, trends in parenting arrangements and sibship size would have counteracting effects on Mexican American schooling success. However, dropout-promoting factors might dominate, in which case the overall impact of family structure change would be to offset gains in parental human capital and slow the educational assimilation process.

Unfortunately, the literature on Mexican American (or, more generally, Hispanic) education has yet to directly investigate the influence of these characteristics on variation in high school dropout across immigrant generations. Although earlier studies provide descriptive statistics on parental arrangements and number of siblings by generation and include these variables in models of dropout risk (Bachmeier & Bean, 2011; Driscoll, 1999; Landale, Oropesa, & Llanes, 1998; Perreira, Harris, & Lee, 2006), they do not lend themselves to assessment of family structure's impact vis-à-vis household human capital. Their analytical designs tend to involve entering parental arrangements and sibship size into pooled multivariate models of high school dropout *simultaneously* with parental education and related socioeconomic variables. As a result, important questions regarding how and to what extent family structure modifies the trajectory of high school completion within the Mexican-origin population remain.

CURRENT STUDY

The current paper attempts to fill in these gaps by utilizing the 2007-2013 March Supplement Files of the Current Population Survey (CPS) to investigate in-depth the manner in

which family composition structures Mexican American educational assimilation. Three main hypotheses derived from earlier work guide the analysis. First, we expect that intergenerational improvement in parental education reduces the high school non-completion rates of the Mexican third generation relative to the second. Second, given evidence of intergenerational declines in nuptiality among Mexican Americans as well as research linking single-parent and stepparent households to poorer educational outcomes, it is anticipated that a shift away from the nuclear family puts upward pressure on Mexican American dropout rates between the second and third generations. Third, in light of studies showing declining fertility within the Mexican-origin population and others documenting a negative association between number of siblings and educational attainment, we expect that a fall in sibship size decreases the third generation's dropout rate compared to the second's.

The analysis has three stages. The first focuses on documenting differences between second- and third-generation Mexican Americans in the factors of interest. We estimate high school dropout rates for Mexican-origin adolescents in total and by immigrant generation and, for comparative purposes, adolescents belonging to other ethnoracial groups. In addition, we calculate the mean values of the family structure, parental human capital, and other explanatory variables for the second and third Mexican immigrant generations. The second stage consists of a decomposition of the difference in high school dropout rates between the second and third generations into components attributable to changes in parental education, parenting arrangements, and subgroup-specific dropout risks (i.e., a residual rate effect). In the final stage of the analysis, we apply multivariate methods in order to shed additional light on how shifts in human capital and family structure shape Mexican Americans' educational trajectory. Specifically, we estimate a binary logistic regression of high school dropout for the second and

third generations and then, utilizing the resulting coefficients, determine how the intergenerational disparity in the expected log odds of non-completion would change were the third generation to assume the parental education, parenting arrangements, and sibship size means of the second.

METHODS

Data

This study relies on the 2007-2013 March Supplement Files of the Current Population Survey, which we access through the Integrated Public Use Microdata Series (IPUMS-CPS) (King et al. 2010). The CPS collects nationally representative data on a variety of demographic and economic characteristics of the civilian non-institutionalized population ages 16 and up. The key advantage of the CPS for the present analysis is that it contains variables indicating the parental birthplaces of each respondent. This information allows for accurate measurement of immigrant generational status. The drawback, however, is that the CPS sample size is fairly small compared to those of other Census-based data sources. Consequently, there are relatively few observations for subsets of ethnic minority populations, including the target population of this study. Our goals are descriptive for this reason.

We concatenate the 2007 to 2013 March files to improve sample size. Earlier years of the CPS are not used because 2007 was the first time that the survey distinguished biological, adoptive, and step- parents (discussed below). Observations classified as belonging to an “outgoing rotation group” are excluded from the analysis in order to avoid the duplication of respondents in the dataset.

Analytical Parameters

The analytic sample consists of individuals 16-17 years old who had not yet graduated from high school and were living with at least one parent at the time of the survey. The 16-17 age range is selected because it is both part of the peak time for high school dropout and prior to the age at which most youth leave the parental home. We include only adolescents residing with a co-resident parent in order to consistently measure background characteristics central to the analysis, namely parental human capital and family structure. In restricting our analysis in this way, we follow earlier decennial census-based research on high school dropout (Bachmeier and Bean 2011; Landale et al. 1998).

Mexican American immigrant generations are identified by classifying respondents by both ethnicity and nativity status. We define Mexican Americans as individuals recorded as being ethnically Mexican through the CPS Hispanic-origin question. First-generation immigrants are persons born outside of the US, the second generation consists of respondents born in the US to at least one parent born abroad, and the third generation is made up of those born in the US to two US-born parents.

Variables

The dependent variable is high school dropout status. This is operationalized with a binary variable indicating whether the respondent was enrolled in school in the week prior to the administration of the survey (non-enrolled = 1). Given the restrictions on our analytical sample, we regard our measure as only a proxy for the final dropout rate.

Parental education (or human capital) is represented by the schooling level of the best-educated co-resident parent (including biological and step). We follow convention for analyzing discrete ordinal variables and treat educational attainment as a continuous factor (i.e. years of

education) in the multivariate analysis. Since 1992, the CPS has measured educational attainment among secondary school graduates according to highest degree obtained rather than highest grade completed. In constructing our variable, we assign years of schooling to these respondents based on typical time spent completing the degree in question: “some college” - 13 years; associate’s - 14; bachelor’s - 16; master’s or professional - 18; doctorate - 21.⁴

We represent parenting arrangements with two dummy variables that distinguish youth living with (1) two biological or adoptive parents (reference category); (2) two parents, at least one of whom is a step-parent; and (3) a single parent. These classifications are based on self-reported relationships. Sibship size is measured as the number of own siblings residing in the respondent’s household.

The control variables are age, sex, metropolitan status, state of residence, and survey year. Age is measured with a binary variable coded 1 if the respondent was 17 years old at the time of the interview (reference = age 16). Sex is captured with a dummy indicating whether the respondent was female. Two dichotomous variables are used to control for metropolitan status, one indicating whether the respondent lived in a nonmetro area and the other if the respondent’s metro status was not identified in the public access data; the omitted category is metropolitan residence. Geographical location is also taken into account with two binary variables distinguishing those living in Texas and California, respectively. These states are especially important in the present context because they have traditionally received the most Mexican immigration (Massey & Capoferro, 2008). Finally, to capture temporal variation, a variable indicating whether the respondent’s household was interviewed during 2010-2013 (versus 2007-2009) is included as well.

⁴We code a response of grades 1-4 as 2.5 years; grades 5-6 as 5.5 years, and grades 7-8 as 7.5 years.

Decomposition

We utilize Das Gupta's (1991, 1993, 1994) method for decomposing cross-classified data to quantify the contributions of gaps between the second and third Mexican immigrant generations in parental human capital and parenting arrangements to the disparity in their high school non-enrollment rates. This technique involves estimating dropout levels for generational subgroups defined by *both* parental education and composition. The sibship dimension of family structure is not taken into account in this part of the analysis due to sample size limitations. For the decomposition, we rely on a three-category typology of parental human capital to increase the reliability of the dropout rate estimates given relatively small sample size; respondents are distinguished by whether their most-educated co-residential parent had (1) less than a high school education, (2) a high school diploma, or (3) at least some college experience. We use the same three-category parental arrangements typology described above.

Conceptually, this decomposition takes the form of the following equation:

$$t - T = I + J + R$$

Where t is the third generation's high school dropout rate, T is the second's, I is the portion of the dropout disparity attributed to differences in parental education, J is the portion due to parenting arrangements, and R is the part of the dropout gap that stems from differences in dropout rates after parental education and family structure have been taken into account.

Regression-Based Analysis

In the last section of the analysis, we employ regression methods to assess the influence of parental human capital and family structure variation on differences between second- and third-generation Mexican Americans in high school dropout *after* controlling for potentially confounding demographic factors. We first run a binary logistic regression of high school

dropout with pooled data on second- and third-generation Mexican Americans.⁵ Using the resulting coefficient estimates, we estimate the average log odds of dropout for each generation and calculate the difference between these figures (third minus second). This differential serves as a baseline. We then produce a set of four hypothetical log odds of dropout for the third generation. Each of these is tabulated by setting the value(s) of a factor of interest (i.e. parental education, parenting arrangements, sibship size, or parenting arrangements plus sibship size) to the mean(s) recorded for the second generation and leaving the remaining values at the third generation means. Finally, we calculate the percent differences between each of the four generational gaps in the log odds of dropout that would obtain under the hypothetical conditions and the baseline log odds gap. The signs and sizes of the resulting values should provide insight into the impact of compositional change on the dropout disparity. For instance, if setting the third generation's parental education equal to the second's *increases* the size of the difference in predicted log odds between them, this would suggest that intergenerational expansion of household human capital *suppresses* the third's dropout rate relative to the second. Our log approach bears similarities to those of previous studies exploring group differentials in family behavior (e.g. Phillips & Sweeney, 2006; Tzeng & Mare, 1995).

RESULTS

To begin, we compare the estimated high school dropout rates of Mexican Americans and other ethnoracial groups (Figure 1). The figures indicate that Mexican-origin adolescents in total are approximately 45 percent more likely to not be enrolled in high school than their non-Hispanic white counterparts (4.9 versus 3.4 percent). The non-completion rate of Mexican-

⁵ In consideration of the fairly small numbers of high school dropouts in our samples of second- and third-generation Mexican Americans (N = 69 and 50, respectively), we heed King and Zeng's (2001) warning about the pitfalls of using maximum likelihood estimation (MLE) when outcomes of interest are relatively rare and use penalized likelihood estimation instead (PLE) (Firth, 1993). A comparison of the MLE and PLE models reveals that PLE tends to yield coefficients with lower p-values.

origin youth is also slightly higher than that of African Americans and non-Mexican Hispanics (both 4.4 percent). Echoing earlier findings on educational stagnation within this population, the dropout prevalence among Mexican-Americans is highest in the first generation (6.0), falls appreciably in the second (4.6) and then rises somewhat in the third (4.9). Consequently, a substantial dropout gap exists even between third-generation Mexican Americans and whites.

Next, we examine the social and demographic characteristics of the second and third generations (Table 1). The results corroborate earlier research by demonstrating major improvement between second- and third-generation Mexican American youth in household socioeconomic status. While the co-resident parents of the average second-generation member possessed less than a high school education (10.5 years of schooling), the typical third-generation youth had a parent who graduated from high school and attended college for almost a year (12.9). Furthermore, there are noteworthy differences in family structure. Close to 64 percent of second-generation Mexican American youth resided with two biological or adoptive parents whereas less than half of the third generation did. Conversely, third-generation members were 5.3 and 10.7 percentage points more likely to live in a stepfamily arrangement and single-parent home, respectively. The third generation also had slightly fewer co-resident siblings than the second on average (1.6 versus 1.9).

The two US-born Mexican American generations are similar in their age, sex and survey year distributions but differ appreciably in spatial location. Reflecting the historical clustering of Mexican immigrants in the Southwest, the majority of both groups resided in Texas or California. Nevertheless, members of the second generation were close to 20 percentage points more likely to live in California while the third generation was around 14 percentage points more

likely to be in Texas. Furthermore, third-generation adolescents were almost twice as likely to live in a nonmetropolitan county as those in the second generation.

These results demonstrate that second- and third-generation Mexican American youth differ substantially in terms of characteristics known to be associated with the risk of high school dropout. We next examine the bivariate relationships between the focal explanatory factors and high school non-completion among the two groups. Figures 2-4 present the high school dropout rates of the second and third generations disaggregated by (respectively) parental schooling, parenting arrangements, and sibship size. For the second generation, the relationship between parental education and high school non-enrollment (Figure 2) is weak and non-monotonic; still, the dropout rate is lowest among those with a parent who had attended college. Within the third generation, high school dropout declines consistently with parental education. This relationship is especially strong with respect to secondary education. While over 10 percent of third-generation adolescents whose parents had not finished high school were not enrolled at the time of the survey, only around 4 percent of those with better-educated parents were. As shown in Figure 3, in both generational groups youth living in a single parent family were around 50 percent more likely to have dropped out than those residing in traditional nuclear families. However, respondents with stepparents do not appear to be at greater risk of dropout. Finally, Figure 4 does not reveal a clear association between sibship size and non-enrollment for the second generation. The dropout rate is appreciably lower for only children (3.5) than for those with one or two siblings (5.1), but the latter unexpectedly have a somewhat higher dropout rate than those with 3 or more (4.2). Nonetheless, the probability of dropout increases consistently with sibship size for the third generation and those with the most siblings are at a substantially elevated risk of quitting school early (7.3 percent).

These descriptive figures suggest that intergenerational increases in parental education may improve third-generation Mexican Americans' odds of completing high school but also that a steep rise in the prevalence of single parent families puts upward pressure on their high school attrition levels. We perform a decomposition as a first step in gauging the relative importance of these factors in educational attainment trends (Table 2). Overall, third-generation Mexican-origin adolescents were 0.277 percentage points more likely to have dropped out of high school than the second generation. The figures indicate that improvement across the two generations in parents' mean years of schooling was associated with a reduction in the third's dropout rate by slightly more than 1 percentage point (-1.098). However, intergenerational increases in non-nuclear families were associated with a nearly one fifth of a percentage point (0.185) rise in the third generation's dropout rate. Thus, we find support for our expectation that the positive influence of expanding household human capital on Mexican American educational attainment is counterbalanced *in part* by a growing prevalence of single-parent and stepfamily arrangements.

We further investigate the educational influences of human capital and family structure by using multivariate estimates to predict hypothetical outcomes. Table 3 presents results from a binary logistic regression of high school dropout for second- and third-generation Mexican Americans. Net of the influence of the other factors considered here, the difference between the two generations in the risk of high school dropout is not statistically significant. Nevertheless, the relationships between the key explanatory variables and the likelihood of dropout are mostly significant and tend to support expectations drawn from the educational attainment literature. More schooling on parents' part is associated with a reduction in their children's likelihood of dropping out of high school. Specifically, a one-unit increase in the former's years of education is estimated to decrease an adolescent's odds of not being enrolled by 5.4 percent ($p < .10$). The

findings on the effects of parental arrangements are mixed. Mexican American youth living in a stepfamily are not significantly different in terms of dropout risk from their counterparts residing in a nuclear family. These results are surprising because earlier research documents negative associations between stepparent relationships and educational outcomes (Astone & McLanahan, 1991; Sandefur & Wells, 1999). Nevertheless, adolescents residing with just one parent figure have non-enrollment odds 61 percent greater than those in nuclear households ($p < 0.05$), reinforcing arguments that disadvantages accrue to youth from growing up in a single-parent family. The regression also yields more evidence that living with a larger number of siblings hinders the acquisition of education; each additional co-resident brother or sister is estimated to raise US-born Mexican American youths' odds of quitting school early by 13 percent ($p < 0.10$).

Interestingly, most of the control variables possess significant relationships with the probability of non-enrollment after netting out parental human capital and family structure effects. US-born Mexican-origin adolescents were twice as likely to not be in school if they lived in a rural area. In addition, California residency - as opposed to inhabiting some other part of the country excluding Texas - is associated with roughly 50 percent ($p < 0.01$) lower odds of high school drop out. Also, the probability of being a dropout was significantly lower in 2011-2013 than in 2007-2010. One potential explanation for the robustness of the time trend is that the end of the "Great Recession" improved high school graduation rates. In additional models, we tested for interaction effects between the immigrant generation variable on the one hand and the parental education and family structure variables on the other. However, the coefficients were not statistically significant (results not shown).

For a more precise assessment (*vis-à-vis* the first decomposition analysis) of the manner in which parental educational attainment and family structure differentially shape the educational

progress of Mexican-origin youth, we examine how the gap between the second and third generations in predicted dropout odds would change under four hypothetical scenarios (Table 4). Using the observed means for each generation, the third generation has slightly higher (+0.079) expected log odds of dropout than the second generation. The results indicate that if third-generation youth possessed the same mean parental education as the second generation, this difference would be 170.3 percent larger. This is yet more evidence that third-generation Mexican American adolescents obtain educational benefits from intergenerational improvement in household human capital. In contrast, assigning the third generation the average parental arrangements of the second without making any other adjustments reduces the predicted log odds disparity by 66.8 percent. Thus, the shift away from traditional families among the third generation is associated with an increased risk of dropout. However, raising the third generation's sibship size to second generation means increases the log odds difference by 38 percent. Lastly, when the values for both dimensions of family structure are set to second-generation levels simultaneously, the log odds gap is 28.8 percent lower. Thus, our multivariate results suggest that the overall effect of intergenerational changes in family structure is to offset roughly 17 percent ($\approx 28.8/170.3$) of the negative effect of increased parental education on dropout risk

DISCUSSION

The stagnation in educational attainment observed among later-generation Mexican Americans contradicts standard models of immigrant incorporation. The lack of intergenerational progress in closing schooling gaps suggests that social conditions other than parental human capital become less favorable for Mexican-origin youth as the duration of exposure to US society lengthens. Several studies point to a decline in "immigrant optimism" as one potential source of

the stagnation. However, the literature up to this point has seemingly overlooked the role of family structure change. Family scholars have documented a decline in nuptiality and fertility between first- and later-generation Mexican Americans. These trends could conceivably alter the parental arrangements and sibship size of the third generation in such a way as to raise their risk of high school attrition, thus helping to account for the persistence of elevated dropout levels.

Utilizing the 2007-2012 March files of the CPS, this study examined how shifts in family structure (i.e. parental arrangements and sibship size) modify the trajectory of high school non-completion between the second and third Mexican immigrant generations. In line with previous studies, we find that third-generation Mexican Americans ages 16-17 were somewhat more likely than their second generation counterparts to have dropped out of high school, and much more likely than non-Hispanic whites. Notable differences exist between second- and third-generation Mexican-origin adolescents in household socioeconomic status and family composition. The parents of the average third-generation member had close to 23 percent more years of schooling than those of the average second-generation youth. Additionally, the third generation was 16 percentage points more likely than the second generation to live in a non-nuclear family structure, though they also had 0.3 fewer siblings on average. The decomposition exercise suggests that intergenerational improvement in parents' educational attainment *reduces* the third generation's dropout rate by around one percentage point relative to the second's, while the corresponding decline in the prevalence of nuclear households *raises* their dropout risk by roughly one fifth of a percentage point. The multivariate results tend to reinforce these findings. Controlling for other factors, increases in parental education across generations appears to improve third generation youths' relative likelihood of staying in school. Furthermore, growth in

single parenthood is estimated to offset a significant portion of this influence. Owing to the positive association between number of siblings and high school non-completion, accounting for sibship size moderates the measured effect of family structure change. Nevertheless, even the combination of intergenerational shifts in parental arrangements and sibship seemingly weakens the educational performance of the third generation.

Taken together, the evidence indicates that family structure change among Mexican Americans may be partly responsible for the educational stagnation observed between the group's second and third immigrant generations. The results appear to run counter to many straight-line models of assimilation by suggesting that certain characteristics of immigrants (in this case, a propensity to form nuclear families) are conducive to upward mobility and that diminution of these tendencies with greater exposure to the host society harms socioeconomic advancement. In this way, the study complements Kao and Tienda's (1995) immigrant optimism hypothesis positing that third-generation youth are disadvantaged compared to their earlier-generation co-ethnics by not having confident, foreign-born parents.

Future research might build on this study by examining the influence of additional aspects of family life on the educational progress of Mexican Americans. For instance, it is possible that extended family living arrangements (e.g. grandparent co-residence) both vary substantially by Mexican immigrant generation and impinge on adolescents' probability of scholastic success. Work that investigates such issues is likely to be of considerable value given the wide-ranging implications of Mexican American educational assimilation for US society.

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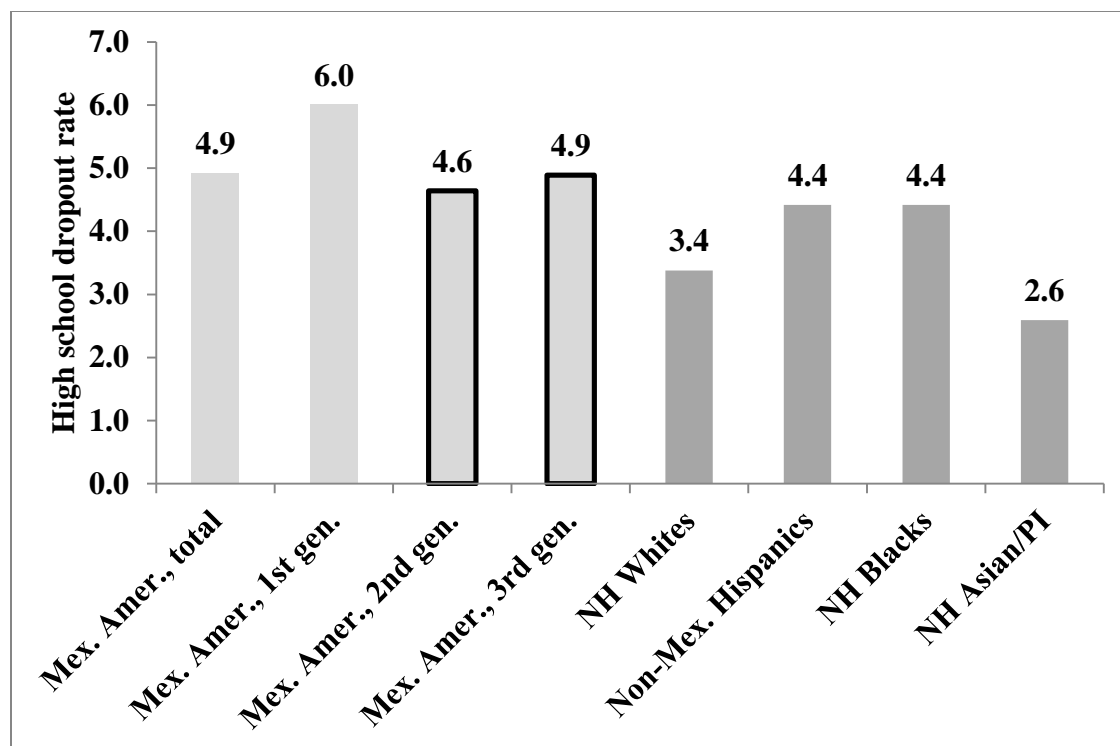


Figure 1. High school dropout rate, by Mexican immigrant generation and ethnicity

Source: The 2007-2013 March Supplement Files of the Current Population Survey. The sample is restricted to respondents, 16-17, who were living with at least one parent and had not yet graduated from high school

Table 1. Mean values of respondent characteristics, by Mexican immigrant generation

Variable	Second generation	Third generation
Parental education (yrs.)	10.5	12.9
Family structure		
Parenting arrangements		
Two parents	64.1	48.1
Two parents, one step	7.4	12.7
Single parent	28.5	39.2
Sibship size	1.9	1.6
Control variables		
Age 17	47.9	49.2
Female	50.7	47.7
Metro Status		
Metropolitan	91.7	86.5
Nonmetropolitan	7.6	12.7
Not identified	0.1	0.8
State of residence		
Texas	20.4	34.8
California	49.2	30.5
Other	30.5	34.8
Survey year		
2007-2009	42.5	46.4
2010-2013	57.5	53.6
N	1,547	1,072

Source: The 2007-2013 March Supplement Files of the Current Population Survey. The sample is restricted to respondents, 16-17, who were living with at least one parent and had not yet graduated from high school

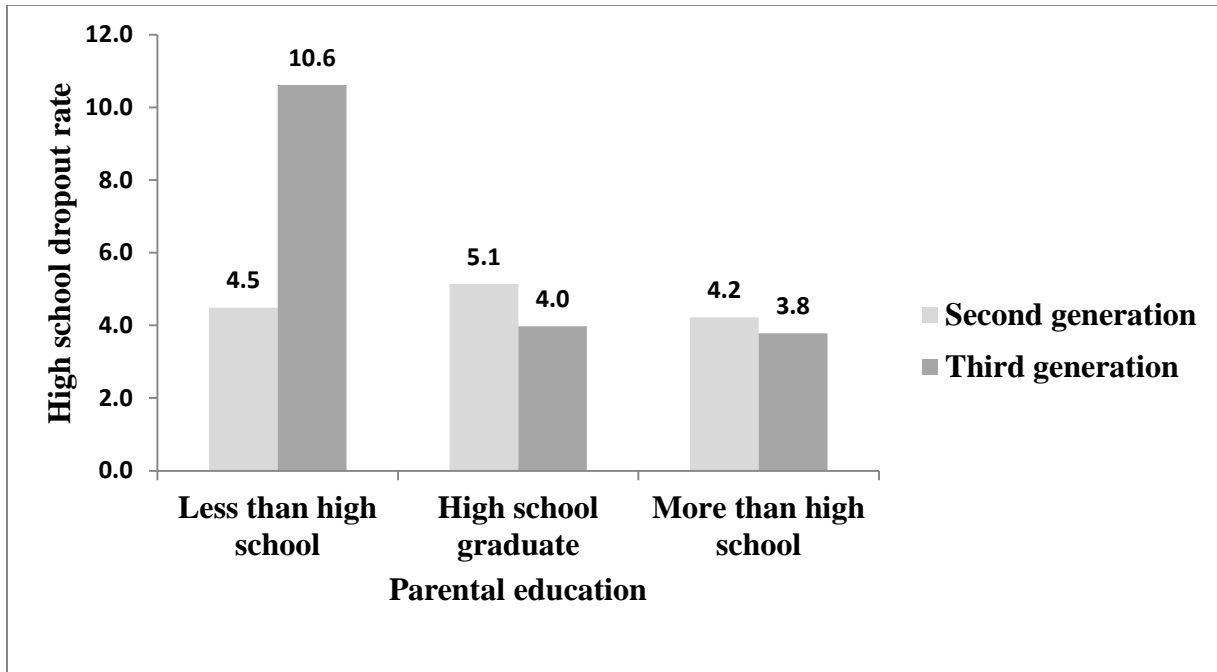


Figure 2. High school dropout rate, by Mexican immigrant generation and parental education
Source: The 2007-2013 March Supplement Files of the Current Population Survey. The sample is restricted to respondents, 16-17, who were living with at least one parent and had not yet graduated from high school

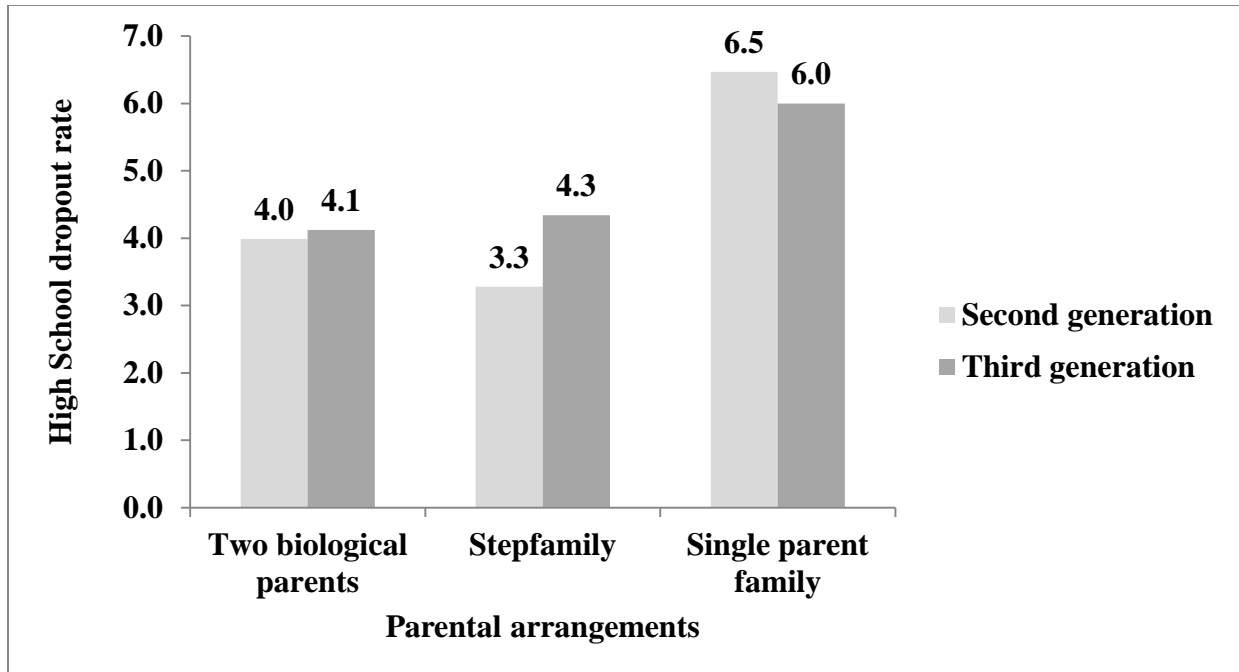


Figure 3. High school dropout rate, by Mexican immigrant generation and parental arrangements
Source: The 2007-2013 March Supplement Files of the Current Population Survey. The sample is restricted to respondents, 16-17, who were living with at least one parent and had not yet graduated from high school

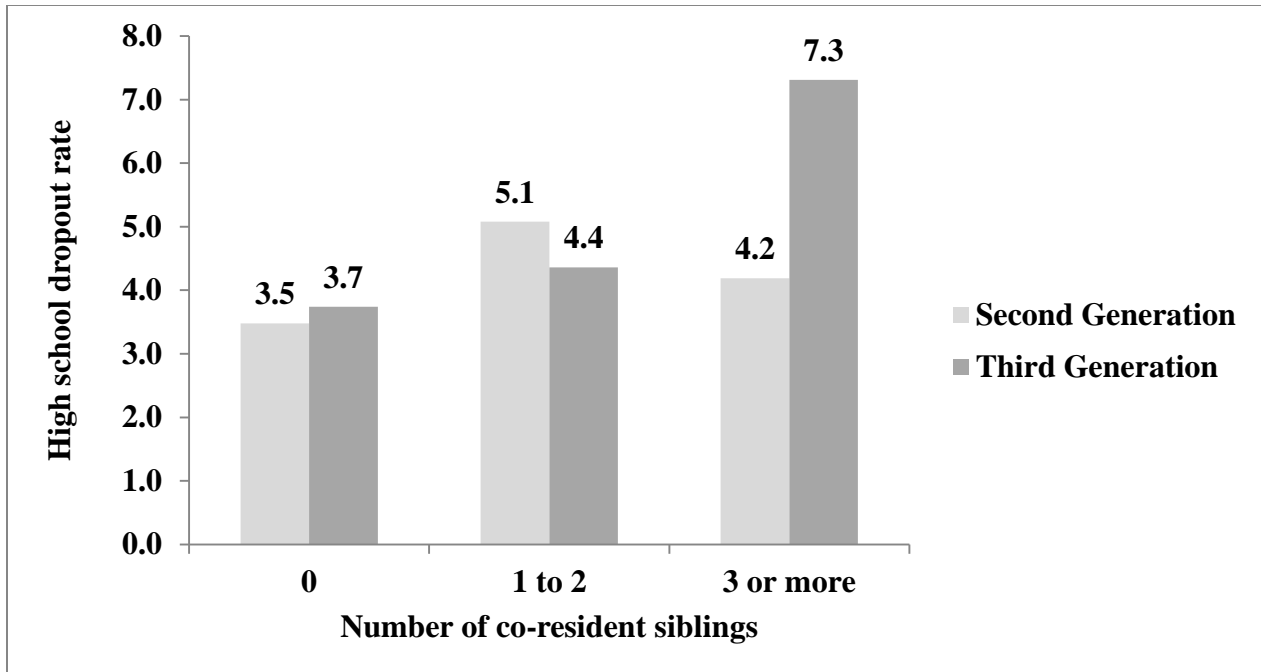


Figure 4. High school dropout rate, by Mexican immigrant generation and sibship size
Source: The 2007-2013 March Supplement Files of the Current Population Survey. The sample is restricted to respondents, 16-17, who were living with at least one parent and had not yet graduated from high school

Table 2. . Decomposition of the high school dropout rate differential between second and third generation Mexican-Americans

Crude dropout difference (3 rd -2 nd)	0.277
<u>Explanatory inequalities</u>	<u>Contribution to dropout difference</u>
Parental education	-1.098
Parental arrangements	0.185
Intra-category rates	1.190

Source: The 2007-2013 March Supplement Files of the Current Population Survey. The sample is restricted to respondents, 16-17, who were living with at least one parent and had not yet graduated from high school

Table 3. Firth logistic regression of high school dropout status: Second and third generation Mexican Americans

Variable	β	SE	OR
Third generation (ref. = second gen.)	0.082	0.212	1.085
Parental education	-0.056*	0.029	0.946
Family structure			
Parental arrangements (ref. = two bio. or adoptive parents)			
Stepfamily	0.037	0.346	1.038
Single parent	0.475**	0.202	1.608
Number of siblings	0.123*	0.069	1.131
Age 17 (ref. = age 16)	0.247	0.188	1.280
Female	-0.084	0.189	0.919
Metro status (ref. = metropolitan)			
Nonmetro	0.695**	0.351	2.004
Unidentified	0.197	0.902	1.218
State of residence (ref. = other states)			
Texas	-0.119	0.233	0.888
California	-0.748***	0.233	0.473
Years 2010-2013 (ref. = 2007-2009)	-0.417**	0.189	0.659
Constant	-3.028***	0.508	0.048
Penalized log likelihood		-445.191	
N		2,609	

Source: The 2007-2013 March Supplement Files of the Current Population Survey. The sample is restricted to respondents, 16-17, who were living with at least one parent and had not yet graduated from high school

Table 4. Percent change in the difference between second- and third-generation Mexican Americans in expected log odds of high school dropout

Baseline intergenerational difference in expected log odds ($3^{\text{rd}} - 2^{\text{nd}}$)	0.079
Compositional gap between 2^{nd} and 3^{rd} generations eliminated	Resulting % change in intergenerational difference in expected log odds
Parental education	170.3
Parental arrangements	-66.8
Sibship size	38.0
Parental arrangements + sibship size	-28.8

Source: The 2007-2013 March Supplement Files of the Current Population Survey. The sample is restricted to respondents, 16-17, who were living with at least one parent and had not yet graduated from high school