Volume Title: Mexican Immigration to the United States

Volume Author/Editor: George J. Borjas, editor

Volume Publisher: University of Chicago Press

Volume ISBN: 0-226-06632-0; 978-0-226-06632-5

Volume URL: http://www.nber.org/books/borj06-1

Conference Date: February 11-12, 2005

Publication Date: May 2007

Title: Ethnic Identification, Intermarriage, and Unmeasured Progress by Mexican Americans

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URL: http://www.nber.org/chapters/c0104

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Ethnic Identification, Intermarriage, and Unmeasured Progress by Mexican Americans

Brian Duncan and Stephen J. Trejo

7.1 Introduction

One of the most important and controversial questions in U.S. immigration research is whether the latest wave of foreign-born newcomers (or their U.S.-born descendants) will ultimately assimilate into the mainstream of American society and whether the pace and extent of such assimilation will vary across immigrant groups. In terms of key economic outcomes such as educational attainment, occupation, and earnings, the sizeable differences by national origin that initially persisted among earlier European immigrants have largely disappeared among the modern-day descendants of these immigrants (Neidert and Farley 1985; Lieberson and Waters 1988; Farley 1990). There is considerable skepticism, however, that the processes of assimilation and adaptation will operate similarly for the predominantly nonwhite immigrants who have entered the United States in increasing numbers over the past thirty years (Gans 1992; Portes and Zhou 1993; Rumbaut 1994). In a controversial new book, Huntington (2004) voices a particularly strong version of such skepticism with regard to Hispanic immigration.

Mexicans assume a central role in current discussions of immigrant inter-

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For helpful comments and advice, we are grateful to Jorge Chapa, Alfredo Cuecuecha, Alberto Davila, Dan Hamermesh, Harry Holzer, Bob Hummer, Evelyn Lehrer, Marie Mora, Gerald Oettinger, Art Sakamoto, Adela de la Torre, two anonymous reviewers, and participants in the NBER conference on Mexican immigration, the 2005 Institute for the Study of Labor (IZA) annual migration meeting, and the 2005 Instituto Technológico Autónomo de México (ITAM)–University of Texas conference. We thank the Russell Sage Foundation for initial support of this research.

generational progress and the outlook for the so-called *new second generation,* not just because Mexicans make up a large share of the immigrant population, but also because most indications of relative socioeconomic disadvantage among the children of U.S. immigrants vanish when Mexicans are excluded from the sample (Perlmann and Waldinger 1996, 1997). Therefore, to a great extent, concern about the long-term economic trajectory of immigrant families in the United States is concern about Mexican American families.

Several recent studies compare education and earnings across generations of Mexican Americans (Trejo 1997, 2003; Fry and Lowell 2002; Farley and Alba 2002; Grogger and Trejo 2002; Livingston and Kahn 2002; Blau and Kahn 2005; Duncan, Hotz, and Trejo 2006). Table 7.1 illustrates the basic patterns that emerge for men.[1] Between the first and second generations, average schooling rises by almost three and one-half years, and average hourly earnings grow by about 30 percent for Mexicans. The third generation, by contrast, shows little or no additional gains, leaving Mexican American men with an educational deficit of 1.3 years and a wage disadvantage of about 25 percent, relative to whites. Similar patterns emerge for women and also when regressions are used to control for other factors such as age and geographic location (Grogger and Trejo 2002; Blau and Kahn 2005; Duncan, Hotz, and Trejo 2006).

The apparent lack of socioeconomic progress between second and later generations of Mexican Americans is surprising. Previous studies have consistently found parental education to be one of the most important determinants of an individual's educational attainment and ultimate labor market success (Haveman and Wolfe 1994; Mulligan 1997). Through this mechanism, the huge educational gain between first- and second-generation Mexican Americans should produce a sizable jump in schooling between the second and third generations because, on average, the third generation has parents who are much better educated than those of the second generation. Yet the improvement in schooling we expect to find between the second and third generations is largely absent.

The research summarized in table 7.1 suggests that intergenerational progress stalls for Mexican Americans after the second generation. As noted by Borjas (1993) and Smith (2003), however, generational comparisons in a single cross-section of data do a poor job of matching immigrant

1. These averages are calculated from March 1998–2002 Current Population Survey data, with standard errors shown in parentheses. The samples for the earnings data are limited to individuals who worked during the calendar year preceding the survey. The "white" ethnic group is defined to exclude Hispanics, as well as blacks, Asians, and Native Americans. The first generation consists of immigrants: foreign-born individuals whose parents were also born outside the United States. The second generation denotes U.S.-born individuals who have at least one foreign-born parent. The so-called "third generation," which really represents the third and all higher generations, identifies U.S. natives whose parents are also natives.

Table 7.1 **Average years of education and log hourly earnings, men ages 25–59**

	Mexicans			
	1st generation	2nd generation	3rd+ generation	3rd+ generation whites
Years of education	8.8	12.2	12.3	13.6
	(.04)	(.06)	(.04)	(.007)
Log hourly earnings	2.244	2.560	2.584	2.837
	(.006)	(.015)	(.010)	(.002)

Source: March 1998–2002 Current Population Survey data.

Notes: Standard errors are in parentheses. Sampling weights were employed in these calculations. The samples for the hourly earnings data are limited to individuals who worked during the calendar year preceding the survey. The "white" ethnic group is defined to exclude Hispanics, as well as blacks, Asians, and Native Americans. The first generation consists of immigrants: foreign-born individuals whose parents were also born outside the United States. The second generation denotes U.S.-born individuals who have at least one foreign-born parent. The third generation identifies U.S. natives whose parents are also natives. Excluded from the samples are foreign-born individuals who have at least one U.S.-born parent, as well as individuals for whom generation cannot be determined because birthplace data are missing for themselves or either parent.

parents and grandparents in the first generation with their actual descendants in later generations. Indeed, Smith (2003) finds evidence of more substantial gains between second- and third-generation Mexicans when he combines cross-sectional data sets from successive time periods in order to compare second-generation Mexicans in some initial period with their third-generation descendants twenty-five years later. Yet even Smith's analysis shows signs of intergenerational stagnation for Mexican Americans. In his table 4, for example, five of the six most recent cohorts of Mexicans experience no wage gains between the second and third generations. Moreover, all studies conclude that large education and earnings deficits (relative to whites) remain for third- and higher-generation Mexicans.[2]

These findings—that the economic disadvantage of Mexican Americans persists even among those whose families have lived in the United States for more than two generations and that the substantial progress observed between the first and second generations seems to stall thereafter—raise doubts whether the descendants of Mexican immigrants are enjoying the same kind of intergenerational advancement that allowed previous groups of unskilled immigrants, such as the Italians and Irish, to eventually enter the economic mainstream of American society. Such conclusions could have far-reaching implications, but the validity of the intergenerational comparisons that underlie these conclusions rests on assumptions about ethnic identification that have received relatively little scrutiny for Mexican Americans. In particular, analyses of intergenerational change typically

2. Borjas (1994) and Card, DiNardo, and Estes (2000) investigate patterns of intergenerational progress for many different national origin groups, including Mexicans.

assume, either explicitly or implicitly, that the ethnic choices made by the descendants of Mexican immigrants do not distort outcome comparisons across generations.

Ethnic identification is to some extent endogenous, especially among people at least one or two generations removed from immigration to the United States (Alba 1990; Waters 1990). Consequently, the descendants of Mexican immigrants who continue to identify themselves as Mexican in the third and higher generations may be a select group. For example, if the most successful Mexican Americans are more likely to intermarry or, for other reasons, cease to identify themselves or their children as Mexican, then available data may understate human capital and earnings gains between the second and third generations.[3] In other words, research on intergenerational assimilation among Mexicans may suffer from the potentially serious problem that the most assimilated members of the group under study eventually fade from empirical observation as they more closely identify with the group they are assimilating toward.[4]

For other groups, selective ethnic identification has been shown to distort observed socioeconomic characteristics. American Indians are a particularly apt example because they exhibit very high rates of intermarriage, and fewer than half of the children of such intermarriages are identified as American Indian by the census race question (Eschbach 1995). For these and other reasons, racial identification is relatively fluid for American Indians, and changes in self-identification account for much of the surprisingly large increase in educational attainment observed for American Indians between the 1970 and 1980 U.S. Censuses (Eschbach, Supple, and Snipp 1998). In addition, Snipp (1989) shows that those who report American Indian as their race have considerably lower schooling and earnings, on average, than the much larger group of Americans who report a non-Indian race but claim to have some Indian ancestry.

To cite another example, Waters (1994) observes selective ethnic identification among the U.S.-born children of New York City immigrants from the West Indies and Haiti. The teenagers doing well in school tend to come from relatively advantaged, middle-class families, and these kids identify most closely with the ethnic origins of their parents. In contrast, the teenagers doing poorly in school are more likely to identify with African Americans. This pattern suggests that self-identified samples of second-generation Caribbean blacks might overstate the socioeconomic achievement of this population, a finding that potentially calls into question the

3. For groups such as Mexicans with relatively low levels of schooling, Furtado (2006) shows that assortative matching on education in marriage markets can create a situation whereby individuals who intermarry tend to be the more highly educated members of these groups.

4. Bean, Swicegood, and Berg (2000) raise this possibility in their study of generational patterns of fertility for Mexican-origin women in the United States.

practice of comparing outcomes for African Americans and Caribbean blacks as a means of distinguishing racial discrimination from other explanations for the disadvantaged status of African Americans (Sowell 1978).

Using microdata from the U.S. Census and from recent years of the Current Population Survey (CPS), we begin to explore these issues for Mexican Americans. In particular, we investigate what factors influence whether individuals choose to identify themselves (or their children) as Mexican-origin, and how these ethnic choices may affect inferences about the intergenerational progress of Mexican Americans. To date, analyses of ethnic responses and ethnic identification employing large national surveys have focused primarily on whites of European descent (Alba and Chamlin 1983; Lieberson and Waters 1988, 1993; Farley 1991), and, therefore, much could be learned from a similar analysis that highlights ethnic choices among the Mexican-origin population.

Existing studies (Stephan and Stephan 1989; Eschbach and Gomez 1998; Ono 2002) demonstrate that the process of ethnic identification by Mexican Americans is fluid, situational, and at least partly voluntary, just as has been observed for non-Hispanic whites and other groups. These studies, however, do not directly address the issue that we will focus on: the selective nature of Mexican identification and how it affects our inferences about intergenerational progress for this population. Though previous research has noted the selective nature of intermarriage for Hispanics overall (Qian 1997, 1999) and for Mexican Americans in particular (Fu 2001; Rosenfeld 2001), this research has not examined explicitly the links between intermarriage and ethnic identification, nor has previous research considered the biases that these processes might produce in standard intergenerational comparisons of economic status for Mexican Americans. Closer in spirit to our analysis is recent work by Alba and Islam (2005) that tracks cohorts of U.S.-born Mexicans across the 1980–2000 Censuses and uncovers evidence of substantial declines in Mexican self-identification as a cohort ages. In contrast with our work, however, Alba and Islam (2005) are able to provide only limited information about the socioeconomic selectivity of this identity shift, and they focus on the identity shifts that occur within rather than across generations of Mexicans.

Ideally, if we knew the family tree of each individual, we could identify which individuals are descended from Mexican immigrants and how many generations have elapsed since that immigration took place. It would then be a simple matter to compare outcomes for this "true" population of Mexican descendants with the corresponding outcomes for a relevant reference group (e.g., non-Hispanic whites) and also with those for the subset of Mexican descendants who continue to self-identify as Mexican-origin.[5]

5. Detailed ancestry information of this sort would raise complicated issues about how to define ethnic groups. For example, should calculations for the Mexican American population

Such an analysis would provide an unbiased assessment of the relative standing of the descendants of Mexican immigrants in the United States, and it would show the extent to which selective ethnic identification distorts estimated outcomes for this population when researchers are forced to rely on standard, self-reported measures of Mexican identity.

Following the 1970 Census, unusually detailed information of this sort was collected for a small sample of individuals with ancestors from a Spanish-speaking country. After each decennial U.S. Census, selected respondents to the Census long form are reinterviewed in order to check the accuracy and reliability of the Census data. The 1970 Census was the first U.S. Census to ask directly about Hispanic origin or descent, and therefore a primary objective of the 1970 Census Content Reinterview Study (U.S. Bureau of the Census 1974) was to evaluate the quality of the responses to this new question. For this purpose, individuals in the reinterview survey were asked a series of questions regarding any ancestors they might have who were born in a Spanish-speaking country. Among those identified by the reinterview survey as having Hispanic ancestors, table 7.2 shows the percent who had previously responded on the 1970 Census long form that they were of Hispanic "origin or descent."[6]

Overall, 76 percent of reinterview respondents with ancestors from a Spanish-speaking country had self-identified as Hispanic in the 1970 Census, but the correspondence between Hispanic ancestry in the reinterview and Hispanic identification in the census fades with the number of generations since the respondent's Hispanic ancestors arrived in the United States. Virtually all (99 percent) first-generation immigrants born in a Spanish-speaking country identified as Hispanic in the census, but the rate of Hispanic identification dropped to 83 percent for the second generation, 73 percent for the third generation, 44 percent for the fourth generation, and all the way down to 6 percent for higher generations of Hispanics. Interestingly, intermarriage seems to play a central role in the loss of Hispanic identification. Almost everyone (97 percent) with Hispanic ancestors on both sides of their family identified as Hispanic in the census,

differentially weight individuals according to their "intensity" of Mexican ancestry? In other words, among third-generation Mexicans, should those with four Mexican-born grandparents count more than those with just one grandparent born in Mexico? The answer might depend on the question of interest. For the questions of intergenerational assimilation and progress that we study here, our view is that all descendants of Mexican immigrants should count equally, regardless of how many branches of their family tree contain Mexican ancestry. This conceptualization allows intermarriage to play a critical role in the process of intergenerational assimilation for Mexican Americans, as it did previously for European immigrants (Gordon 1964; Lieberson and Waters 1988). As we note in the following, however, our data and analyses can shed light on the direction, but not the ultimate magnitude, of measurement biases arising from selective intermarriage and ethnic identification by Mexican Americans. Our conclusions about the direction of these measurement biases require only that persons of mixed ancestry—that is, the products of Mexican intermarriage—be included with some positive weight in whatever definition is adopted for the Mexican American population.

6. The information in table 7.2 is reproduced from table C of U.S. Bureau of the Census (1974, 8).

Table 7.2 **Hispanic identification of individuals with ancestors from a Spanish-speaking country, as reported in the 1970 U.S. Census Content Reinterview Study**

Hispanic ancestry classification in reinterview	Percent who identified as Hispanic in the census	Sample size
Most recent ancestor from a Spanish-speaking country		
Respondent (1st generation)	98.7	77
Parent(s) (2nd generation)	83.3	90
Grandparent(s) (3rd generation)	73.0	89
Great grandparent(s) (4th generation)	44.4	27
Further back (5th+ generations)	5.6	18
Hispanic ancestry on both sides of family	97.0	266
Hispanic ancestry on one side of family only	21.4	103
Father's side	20.5	44
Mother's side	22.0	59
All individuals with Hispanic ancestry	75.9	369

Source: Table C of U.S. Bureau of the Census (1974, 8).

Note: Information regarding the generation of the most recent ancestor from a Spanish-speaking country was missing for sixty-eight respondents who nonetheless indicated that they had Hispanic ancestry on one or both sides of their family.

whereas the corresponding rate was only 21 percent for those with Hispanic ancestors on just one side of their family. Given the small number of Hispanics in the reinterview sample (369 individuals reported having at least one ancestor from a Spanish-speaking country), the percentages in table 7.2 should be regarded with caution, especially those for the very small samples of Hispanics who are fourth generation or higher. Nonetheless, these data do suggest that self-identified samples of U.S. Hispanics might omit a large proportion of later-generation individuals with Hispanic ancestors and that intermarriage could be a fundamental source of such intergenerational ethnic "attrition."

Unfortunately, the microdata underlying table 7.2 no longer exist, so we cannot use these data to examine in a straightforward manner how selective ethnic attrition affects observed measures of intergenerational progress for Mexican Americans.[7] Out of necessity, we instead adopt much

7. Starting in 1980, the Census has included an open-ended question asking for each person's "ancestry" or "ethnicity," with the first two responses coded in the order that they are reported (Farley 1991). For the purposes of identifying individuals with Mexican or Hispanic ancestors, however, the census ancestry question is not a good substitute for the detailed battery of questions included in the 1970 Census Content Reinterview Study. Indeed, many 1980–2000 Census respondents who identified as Hispanic in response to the Hispanic origin question failed to list an Hispanic ancestry in response to the ancestry item that comes later on the census long-form questionnaire, perhaps because they thought it redundant and unnecessary to indicate their Hispanic ethnicity a second time. Comparatively few respondents listed an Hispanic ancestry after identifying as non-Hispanic when answering the Hispanic-origin question, so the ancestry question actually produces a lower overall count of Hispanics than does the Hispanic-origin question (Lieberson and Waters 1988; del Pinal 2004).

less direct strategies for trying to shed light on this issue. First, we use the presence of a Spanish surname as an objective, though imperfect, indicator of Mexican ancestry. Second, we analyze the extent and selectivity of intermarriage by Mexican Americans. Third, we study the links between Mexican intermarriage and ethnic identification, focusing on the children produced by these intermarriages. Finally, we explore how intermarriage and ethnic identification vary across generations of U.S.-born Mexicans. Throughout, we analyze the same four outcome variables. The first two—educational attainment and English proficiency—are important measures of human capital. The other two—employment and average hourly earnings—are key indicators of labor market performance.

7.2 Spanish Surname

Our first set of analyses exploits the information about Spanish surnames that was made available most recently in the 1980 Census. The microdata file indicates whether an individual's surname appears on a list of almost 12,500 Hispanic surnames constructed by the Census Bureau. This information, however, is provided only for those individuals who reside in the following five southwestern states: California, Texas, Arizona, Colorado, and New Mexico.

Though the surname list constructed for the 1980 Census is more extensive and accurate than those used with previous censuses, as a tool for identifying Hispanics the list suffers from sins of both omission and commission. Indeed, both types of errors are introduced by the common practice of married women taking the surname of their husbands, as Hispanic women can lose and non-Hispanic women can gain a Spanish surname through intermarriage. The surname list also errs by labeling as Hispanic some individuals of Italian, Filipino, or Native Hawaiian descent who have names that appear on the list (Bean and Tienda 1987; Perkins 1993).

For our purposes, another weakness of the surname list is that it cannot distinguish Mexicans from other Hispanic national origin groups. This weakness is minimized, however, by limiting the sample to the aforementioned five southwestern states. In 1980, the Puerto Rican and Cuban populations in these states were still quite small, and large-scale immigration from Central and South America had not yet begun. As a result, the overwhelming majority of Hispanics in these southwestern states are Mexican-origin. Indeed, in the samples of U.S.-born individuals analyzed in the following, 88 percent of those who self-report as being of Hispanic origin indicate Mexican as their national origin, and almost all remaining self-reported Hispanics fall into the "Other Hispanic" category. Individuals in this "Other Hispanic" category are especially prevalent in the states of New Mexico and Colorado, where some Hispanics whose families have lived in these regions for many generations prefer to call themselves "His-

panos," emphasizing their roots to the Spaniards who settled the new world over their Mexican and Indian ancestry (Bean and Tienda 1987).

The Spanish surname information provided in the 1980 Census is in addition to the race and Hispanic origin questions typically employed to identify racial or ethnic groups. Our hope is that, particularly for men, the presence of a Spanish surname in the five southwestern states provides an objective, albeit imperfect, indicator of Mexican ancestry that allows us to identify some individuals of Mexican descent who fail to self-report as Hispanic and who are therefore missed by subjective indicators such as the Hispanic origin question in the census. If so, then perhaps differences in human capital and labor market outcomes between Spanish-surnamed individuals who do and do not self-identify as Hispanic can reveal something about the selective nature of ethnic identification for Mexican Americans.

To pursue this idea, we extracted from the 1980 Census five-percent microdata sample all individuals between the ages of twenty-five and fifty-nine who reside in the states of California, Texas, Arizona, Colorado, and New Mexico. We focus on individuals in this age range because they are old enough that virtually all of them will have completed their schooling, yet they are young enough that observed labor market outcomes reflect their prime working years. Given our interest in ethnic identification, we exclude from our sample anyone whose information about race, Hispanic origin, or country of birth was allocated by the Census Bureau. To increase the accuracy of the Spanish surname indicator, individuals whose race is American Indian or Asian are also excluded, as is anyone else with a race other than white or black who neither has a Spanish surname nor self-reports as being of Hispanic origin.

In our data, there are two different ways for individuals to be identified as Hispanic. They can self-report being Hispanic in response to the Hispanic origin question, and they can possess a Spanish surname. Based on these two Hispanic indicators, we define three mutually exclusive types of Hispanic identification: those identified as Hispanic *both* by self-report and by surname, those identified as Hispanic by self-report *only* (and not by surname), and those identified as Hispanic by surname *only* (and not by self-report). Remaining individuals in our sample are non-Hispanic whites and blacks (i.e., persons of white or black race who do not self-report as being of Hispanic origin and also do not possess a Spanish surname). We conduct all analyses separately for men and women.

Table 7.3 shows the ethnic distribution of our sample separately for U.S. natives and three different groups of foreign-born individuals: those born in Mexico, those born in another Hispanic country, and those born in a non-Hispanic foreign country. For now, let us focus on the data for men in the top panel of the table. As might be expected, almost everyone born in Mexico is identified as Hispanic, and very few men born in non-Hispanic foreign countries are identified as Hispanic. Just over 85 percent of men

Table 7.3 **Ethnic distributions, by country of birth, 1980 (%)**

	Country of birth			
	United States	Mexico	Other Hispanic country	Non-Hispanic foreign country
Men				
Identified as Hispanic by:				
Self-report and surname	10.3	91.9	64.4	.7
Self-report only	1.6	7.0	20.4	1.0
Surname only	.5	.5	1.0	1.1
Non-Hispanic				
White	79.9	.5	9.0	95.0
Black	7.7	.02	5.1	2.2
	100.0	100.0	100.0	100.0
Sample size	373,700	23,719	6,124	15,675
Women				
Identified as Hispanic by:				
Self-report and surname	9.4	87.0	54.0	.6
Self-report only	3.0	11.6	31.5	1.0
Surname only	1.8	.6	1.2	2.9
Non-Hispanic				
White	77.3	.7	8.7	94.7
Black	8.5	.1	4.7	.8
	100.0	100.0	100.0	100.0
Sample size	378,873	22,163	7,045	18,560

Source: 1980 U.S. Census data.

Notes: The samples include individuals ages 25–59 who reside in the states of California, Texas, Arizona, Colorado, and New Mexico. Individuals whose race is American Indian or Asian are excluded, as is anyone else with a race other than white or black who neither has a Spanish surname nor self-reports as being of Hispanic origin. The category "other Hispanic country" refers to individuals born in a Hispanic country other than Mexico. The following countries are included in this category: Puerto Rico, Cuba, Dominican Republic, El Salvador, Guatemala, Honduras, Nicaragua, Costa Rica, Panama, Colombia, Peru, Ecuador, Argentina, Chile, Venezuela, Bolivia, Uruguay, Paraguay, and Spain.

born in Hispanic countries other than Mexico are identified as Hispanic. The Spanish surname indicator does not capture all Hispanics, as substantial numbers of men born in Mexico and other Hispanic countries are identified as Hispanic by self-report only. But note that few men born in Mexico and other Hispanic countries are identified as Hispanic by surname only. Of men identified as Hispanic, only 0.5 percent of those born in Mexico and 1.2 percent of those born in other Hispanic countries are identified by surname only. Among U.S.-born men identified as Hispanic, however, the corresponding rate is about 4 percent—still low, but noticeably higher. The higher rate of surname-only identification for U.S.-born His-

panics compared to foreign-born Hispanics is what we might expect if this group in part captures men of Hispanic descent who are choosing not to self-identify as Hispanic because ethnicity is likely to be more fluid and malleable for U.S.-born Hispanics than for Hispanic immigrants. The patterns are similar for women in the bottom panel of the table, except that for all countries of birth women show more inconsistency between self-reported and surname-based indicators of Hispanicity than men do, presumably because of errors sometimes introduced when married women take their husband's surname.

Henceforth we limit the analysis to U.S.-born individuals because issues of ethnic identification are most relevant for this group. Table 7.3 indicates that, even among the U.S.-born, men with a Spanish surname usually also self-report being of Hispanic origin. As noted previously, just 4 percent of the U.S.-born men that we label as Hispanic are so identified only by their Spanish surname. A larger share of Hispanic men, 13 percent, self-identify as Hispanic but do not possess a surname on the census list of Spanish surnames. The vast majority, 83 percent, identifies as Hispanic through both self-report and surname. For U.S.-born Hispanic women, the corresponding proportions are 13 percent identify as Hispanic by surname only, 21 percent by self-report only, and 66 percent through both indicators.

For each type of Hispanic identification, as well as for non-Hispanic whites and blacks, table 7.4 displays averages for the following measures of human capital and labor market performance: completed years of schooling, percent deficient in English, percent employed, and the natural logarithm of average hourly earnings. Here, we define someone to be "deficient" in English if they speak a language other than English at home and they report speaking English worse than "very well."[8] The employment and earnings measures pertain to the calendar year preceding the census. We compute average hourly earnings as the ratio of annual earnings to annual hours of work, where annual earnings are the sum of wage and salary income and self-employment income, and annual hours of work are the product of weeks worked and usual weekly hours of work. The samples for the earnings data are limited to those who were employed.[9] Standard errors are shown in parentheses.

In general, the top panel of table 7.4 shows that men identified as Hispanic by self-report only or by surname only have more human capital and better labor market outcomes than men identified as Hispanic by both indicators. Men with inconsistent responses to the Hispanic indicators have at least a year and a half more schooling and over 10 percent higher wages

8. The census asks individuals whether they "speak a language other than English at home," and those who answer affirmatively then are asked how well they speak English, with possible responses of "very well," "well," "not well," or "not at all."

9. In addition, observations in the 1980 Census data with computed hourly earnings below $1 or above $200 are considered outliers and excluded.

Table 7.4 **Average outcomes by type of Hispanic identification, 1980, U.S.-born individuals only**

	Years of education	Deficient English	Percent employed	Log hourly earnings
Men				
Identified as Hispanic by:				
Self-report and surname	10.6	28.8	90.7	1.900
	(.02)	(.23)	(.15)	(.003)
Self-report only	12.1	14.4	90.8	2.008
	(.05)	(.46)	(.38)	(.009)
Surname only	12.2	7.0	91.8	2.083
	(.08)	(.61)	(.66)	(.017)
All types of Hispanics	10.8	26.1	90.8	1.921
	(.02)	(.20)	(.13)	(.003)
Non-Hispanic				
White	13.6	.6	94.1	2.163
	(.005)	(.01)	(.04)	(.001)
Black	12.0	.8	84.1	1.926
	(.02)	(.05)	(.22)	(.004)
Women				
Identified as Hispanic by:				
Self-report and surname	9.7	33.3	59.6	1.476
	(.02)	(.26)	(.26)	(.004)
Self-report only	11.7	13.0	67.9	1.624
	(.03)	(.32)	(.44)	(.007)
Surname only	12.3	3.2	67.7	1.626
	(.03)	(.21)	(.56)	(.009)
All types of Hispanics	10.5	25.1	62.4	1.531
	(.02)	(.19)	(.21)	(.003)
Non-Hispanic				
White	13.0	.5	68.7	1.679
	(.005)	(.01)	(.09)	(.001)
Black	12.1	.6	70.8	1.649
	(.02)	(.04)	(.25)	(.004)

Source: 1980 U.S. Census data.

Notes: Standard errors are in parentheses. The samples include U.S.-born individuals ages 25–59 who reside in the states of California, Texas, Arizona, Colorado, and New Mexico. Individuals whose race is American Indian or Asian are excluded, as is anyone else with a race other than white or black who neither has a Spanish surname nor self-reports as being of Hispanic origin. The samples for the hourly earnings data are further limited to individuals who were employed at some time during the calendar year preceding the census. The sample sizes for men are 373,700 for the full sample and 339,272 for the employed sample, and the sample sizes for women are 378,873 for the full sample and 247,111 for the employed sample.

than Hispanic men with consistent responses,[10] and rates of English deficiency are lower for men with inconsistent responses. The bottom panel of table 7.4 shows patterns for women that are qualitatively similar but even stronger, with a substantial advantage in the employment rate now evident for women with inconsistent Hispanic indicators.

The least squares regression coefficients reported in table 7.5 illustrate more clearly these comparisons and also show how the comparisons change after conditioning on the influence of various controls. The dependent variables are the four outcomes introduced in table 7.4. The key independent variables are dummies indicating the type of Hispanic identification and a dummy identifying non-Hispanic blacks so that the reference group consists of non-Hispanic whites. The first regression specification—the columns labeled (1) in table 7.5—includes only the ethnic dummy variables, and therefore these coefficients reproduce the mean comparisons from table 7.4. The second specification—the columns labeled (2)—adds controls for geographic location and age. The controls for geographic location are dummy variables identifying the five states included in the sample and whether the individual resides in a metropolitan area. The controls for age are dummy variables identifying five-year age intervals. Finally, for the employment and earnings outcomes, there is a third specification—the columns labeled (3)—that also conditions on the human capital variables that measure educational attainment and English proficiency.

Table 7.5 indicates that, for both men and women and for all outcomes, controlling for geographic location and age has little effect on the patterns just described. The coefficients change only slightly as we move from specification (1) to specification (2). For the labor market outcomes, however, controlling for human capital has a large effect. Moving from specification (2) to specification (3) dramatically shrinks the employment and earnings differences associated with the type of Hispanic identification, and it also reduces the labor market disadvantage of Hispanics relative to non-Hispanic whites.[11] These findings reveal that differences in labor market

10. For expositional convenience, throughout the paper we will treat log wage differences as representing percentage wage differentials, although we recognize that this approximation becomes increasingly inaccurate for log differences on the order of .25 or more in absolute value. In such instances, one can calculate the implied percentage wage differential as $e^x - 1$, where x represents the estimated log wage difference.

11. One surprise in table 7.5 is that the specification (3) earnings regression for women yields a positive and statistically significant coefficient for the dummy variable indicating deficient English. This counterintuitive result arises from the strong correlation, for Hispanics, between education and English proficiency and from the fact that the regression restricts the returns to education to be the same for Hispanics and non-Hispanics. Either dropping education from this regression or allowing its effect to vary by ethnicity produces the expected negative coefficient for deficient English. Allowing the impact of education to differ for Hispanics and non-Hispanics does not, however, alter the pattern of earnings differences by type of Hispanic identification or the conclusion that most of these earnings differences derive from human capital differences.

Table 7.5 **Regression-adjusted outcome differences by type of Hispanic identification, 1980, U.S.-born individuals only**

	Dependent variable									
	Education		Deficient English		Employment			Log hourly earnings		
Regressor	(1)	(2)	(1)	(2)	(1)	(2)	(3)	(1)	(2)	(3)
Men										
Identified as Hispanic by:										
Self-report and surname	–3.02	–3.03	.282	.280	–.034	–.040	.003	–.263	–.227	–.075
	(.02)	(.02)	(.001)	(.001)	(.001)	(.001)	(.002)	(.004)	(.004)	(.004)
Self-report only	–1.49	–1.67	.138	.141	–.033	–.039	–.015	–.154	–.129	–.048
	(.04)	(.04)	(.002)	(.002)	(.003)	(.003)	(.003)	(.009)	(.008)	(.008)
Surname only	–1.34	–1.39	.064	.065	–.024	–.022	–.003	–.080	–.007	–.010
	(.08)	(.07)	(.004)	(.004)	(.006)	(.006)	(.006)	(.016)	(.015)	(.015)
Non-Hispanic black	–1.58	–1.60	.002	–.0004	–.101	–.106	–.087	–.237	–.231	–.167
	(.02)	(.02)	(.001)	(.001)	(.002)	(.002)	(.002)	(.004)	(.004)	(.004)
Years of education							.012			.046
							(.0001)			(.0004)
Deficient English							–.021			–.074
							(.002)			(.006)
Women										
Identified as Mexican by:										
Self-report and surname	–3.30	–3.30	.328	.326	–.091	–.097	.014	–.203	–.176	–.013
	(.02)	(.02)	(.001)	(.001)	(.003)	(.003)	(.003)	(.004)	(.004)	(.005)
Self-report only	–1.27	–1.48	.125	.130	–.007	–.026	.024	–.055	–.061	.014
	(.03)	(.03)	(.002)	(.002)	(.004)	(.004)	(.004)	(.007)	(.007)	(.007)
Surname only	–.66	–.96	.026	.033	–.009	–.035	–.005	–.053	–.069	–.016
	(.03)	(.03)	(.002)	(.002)	(.006)	(.006)	(.005)	(.009)	(.009)	(.009)

Non-Hispanic black	–.91	–.94	.0008	–.001	.022	.009	.037	–.030	–.028	.018
	(.02)	(.02)	(.001)	(.001)	(.003)	(.003)	(.003)	(.004)	(.004)	(.004)
Years of education							.029			.064
							(.0003)			(.0005)
Deficient English							–.042			.035
							(.004)			(.008)
Controls for:										
Geographic location	No	Yes	No	Yes	No	Yes	Yes	No	Yes	Yes
Age	No	Yes	No	Yes	No	Yes	Yes	No	Yes	Yes

Source: 1980 U.S. Census data.

Notes: The reported figures are estimated coefficients from ordinary least squares regressions run separately for men and women. Standard errors are in parentheses. The samples include U.S.-born individuals ages 25–59 who reside in the states of California, Texas, Arizona, Colorado, and New Mexico. Individuals whose race is American Indian or Asian are excluded, as is anyone else with a race other than white or black who neither has a Spanish surname nor self-reports as being of Hispanic origin. The samples for the hourly earnings regressions are further limited to individuals who were employed at some time during the calendar year preceding the Census. The sample sizes for men are 373,700 for the full sample and 339,272 for the employed sample, and the sample sizes for women are 378,873 for the full sample and 247,111 for the employed sample. For the dummy variables indicating ethnicity, the reference group consists of non-Hispanic whites. The controls for geographic location are dummy variables identifying the five states included in the sample and whether the individual resides in a metropolitan area. The controls for age are dummy variables identifying five-year age intervals.

outcomes across Hispanic groups and between Hispanics and whites are largely driven by the corresponding differences in schooling and English proficiency.

How should we interpret these patterns? If the group of Hispanic men identified by surname only captures some Hispanics who are choosing to loosen their ethnic attachment, then we have found evidence that such individuals are positively selected in terms of human capital and labor market outcomes. The small size of this group, however, argues against regarding these results as anything more than suggestive. Note that we also found evidence of positive selection for Hispanic men identified by self-report only. These men may be Hispanics who lost their Spanish surname through intermarriage as could occur if they have an Hispanic mother or grandmother who married a non-Hispanic man and took his surname. Therefore, the results for the "Hispanic by self-report only" group are consistent with the results on the selectivity of Mexican intermarriage that we present in the next section. Finally, the patterns for women are similar to those for men but cannot necessarily be interpreted in the same way because the "Hispanic by surname only" group includes some non-Hispanic women who acquired a Spanish surname through marriage.

7.3 Mexican Intermarriage

Intermarriage has always been a fundamental source of ethnic flux and leakage in American society (Lieberson and Waters 1988). For Mexican Americans, Rosenfeld (2002, table 1) shows that intermarriage increased substantially between 1970 and 1980 and even more sharply between 1980 and 1990. Indeed, Perlmann (2003) argues that the proclivity for intermarriage by second-generation Mexicans today is similar to what was observed for second-generation Italians in the early 1900s. This argument has potentially provocative implications for intermarriage by future generations of Mexican Americans because intermarriage became so commonplace for subsequent generations of Italian Americans that Alba (1986) characterized this group as entering the "twilight of ethnicity." Accordingly, our second set of analyses examines the extent and selectivity of Mexican American intermarriage.

Because intermarriage is probably the predominant source of leakage from the population of self-identified Mexican Americans (through the ethnic choices made by the children and grandchildren of these intermarriages), knowing the magnitude of Mexican American intermarriage is important for evaluating the potential bias that such leakage could produce in intergenerational comparisons. One important limitation, however, of census (and CPS) data for investigating the frequency of intermarriage is that these data measure prevalence rather than incidence. In other words, these data show the marriages that exist at a given point in time rather than

all marriages that took place over a given span of time. Prevalence measures of intermarriage may differ from incidence measures if, for example, intermarriages have a higher risk of divorce than do endogamous marriages. For our purposes, prevalence measures of intermarriage that capture both marital incidence and duration may actually be preferable as longer-lasting marriages are more likely to produce children and have the influence on ethnic identification in succeeding generations that is the focus of our interest.

For these analyses, we employ microdata from the 2000 Census. The sample includes marriages that meet the following conditions: both spouses are between the ages of twenty-five and fifty-nine, the couple currently lives together, and at least one spouse is a U.S.-born individual identified as Mexican by the census question regarding Hispanic origin. Furthermore, we exclude marriages in which either spouse has allocated information about Hispanic origin. These restrictions yield a sample of 62,734 marriages.

For the U.S.-born Mexican husbands and wives involved in these marriages, table 7.6 shows the nativity/ethnicity distributions of their spouses. Intermarriage is widespread in our samples of Mexican American husbands and wives. The first column indicates that just over half (51 percent) of U.S.-born husbands of Mexican descent have wives of the same nativity and ethnicity, and another 14 percent are married to Mexican immigrants. Therefore, the remaining 35 percent of Mexican American husbands have wives that are neither Mexican nor Mexican American, with the bulk of these wives (27 percent) being U.S.-born non-Hispanic whites. The nativity/ethnicity distribution of Mexican American wives is quite similar, except for a somewhat higher rate of marriage to Mexican immigrants and a correspondingly lower rate of marriage to U.S.-born Mexicans.

Table 7.6 suggests that, in terms of nativity and ethnicity, the marital choices of U.S.-born Mexicans can be classified into three main categories of spouses: U.S.-born Mexicans, foreign-born Mexicans, and non-Mexicans. Based on this simplification, table 7.7 proposes a typology of marriages involving U.S.-born Mexicans that also indicates, for marriages in which only one spouse is a U.S.-born Mexican, whether the other spouse is the husband or the wife. Note that the unit of analysis in table 7.7 is the marriage, rather than the U.S.-born Mexican husband or wife as in table 7.6. This shift in focus is consistent with our interest in how Mexican intermarriage may impact the ethnic identification and observed socioeconomic characteristics of subsequent generations because children are a product of the marriage. Table 7.7 demonstrates the potential for ethnic leakage among the children of Mexican Americans as almost half (48 percent) of Mexican American marriages involve a non-Mexican spouse.

Using this same typology of Mexican American marriages, table 7.8 presents averages of the human capital and labor market variables for the

Table 7.6 **Nativity/ethnicity distributions of the spouses of U.S.-born Mexicans, 2000 (%)**

Nativity/ethnicity of spouse	U.S.-born Mexican	
	Husbands	Wives
U.S.-born		
Mexican	50.6	45.3
Other Hispanic	2.7	2.3
Non-Hispanic:		
White	26.7	28.1
Black	.6	1.5
Asian	.4	.3
Other race	.8	.6
Multiple race	1.0	1.0
Foreign-born		
Mexican	13.6	17.4
Other Hispanic	1.5	1.8
Non-Hispanic:		
White	1.1	1.2
Black	.04	.06
Asian	.7	.3
Other race	.06	.03
Multiple race	*.2*	*.2*
	100.0	100.0

Source: 2000 U.S. Census data.

Notes: The sample includes marriages that meet the following conditions: both spouses are between the ages of 25–59, the couple currently lives together, and at least one spouse is a U.S.-born individual identified as Mexican by the census question regarding Hispanic origin. For the U.S.-born Mexican husbands and wives involved in these marriages, the table shows the nativity/ethnicity distributions of their spouses. There are 62,734 such marriages, and these marriages involve 38,911 U.S.-born Mexican husbands and 43,527 U.S.-born Mexican wives.

Table 7.7 **Types of marriages involving U.S.-born Mexicans, 2000**

Type of marriage	Percent of sample
Both spouses U.S.-born Mexican	31.4
Husband foreign-born Mexican (wife U.S.-born Mexican)	12.0
Wife foreign-born Mexican (husband U.S.-born Mexican)	8.4
Husband non-Mexican (wife U.S.-born Mexican)	25.9
Wife non-Mexican (husband U.S.-born Mexican)	22.2
	100.0

Source: 2000 U.S. Census data.

Notes: The sample includes marriages that meet the following conditions: both spouses are between the ages of 25–59, the couple currently lives together, and at least one spouse is a U.S.-born individual identified as Mexican by the census question regarding Hispanic origin. There are 62,734 such marriages.

Table 7.8 Average outcomes by type of marriage, 2000

	Years of education	Deficient English	Percent employed	Log hourly earnings
Husbands				
Type of marriage				
Both spouses U.S.-born Mexican	12.0	14.1	91.9	2.692
	(.02)	(.25)	(.19)	(.005)
Husband foreign-born Mexican	9.6	53.3	92.8	2.544
	(.05)	(.57)	(.30)	(.007)
Wife foreign-born Mexican	11.5	24.4	91.8	2.621
	(.04)	(.59)	(.38)	(.009)
Husband non-Mexican	13.5	4.0	95.1	2.919
	(.02)	(.15)	(.17)	(.005)
Wife non-Mexican	13.1	5.1	94.9	2.845
	(.02)	(.19)	(.19)	(.005)
All husbands	12.3	15.0	93.5	2.763
	(.01)	(.14)	(.10)	(.003)
Wives				
Type of marriage				
Both spouses U.S.-born Mexican	12.1	14.2	73.3	2.415
	(.02)	(.25)	(.32)	(.005)
Husband foreign-born Mexican	11.4	18.8	69.8	2.355
	(.03)	(.45)	(.53)	(.009)
Wife foreign-born Mexican	10.3	53.5	60.0	2.289
	(.05)	(.69)	(.67)	(.012)
Husband non-Mexican	13.1	6.0	79.2	2.565
	(.02)	(.19)	(.32)	(.006)
Wife non-Mexican	13.3	4.4	79.6	2.579
	(.02)	(.17)	(.34)	(.006)
All wives	12.4	13.7	74.7	2.480
	(.01)	(.14)	(.17)	(.003)

Source: 2000 U.S. Census data.

Notes: Standard errors are in parentheses. The samples include husbands and wives in marriages that meet the following conditions: both spouses are between the ages of 25–59, the couple currently lives together, and at least one spouse is a U.S.-born individual identified as Mexican by the census question regarding Hispanic origin. The samples for the hourly earnings data are further limited to individuals who were employed at some time during the calendar year preceding the census. The sample sizes are 62,734 husbands and 62,734 wives for the full samples, and 58,003 husbands and 45,857 wives for the employed samples.

husbands and wives in each type of marriage.[12] These calculations include *all* husbands or wives in the relevant marriages, not just the Mexican American husbands or wives. Therefore, we can observe not only the selectivity of U.S.-born Mexicans who intermarry, but also the characteris-

12. As before, the samples for the earnings data are limited to employed individuals. In addition, observations in the 2000 Census data with computed hourly earnings below $2.50 or

tics of their spouses. For example, wife outcomes for the marriage type "Husband non-Mexican" provide information about Mexican American women who marry non-Mexicans, whereas husband outcomes for this same marriage type provide information about the spouses of these women. For both husbands and wives, outcomes for the marriage type "Both spouses U.S.-born Mexican" provide information about Mexican Americans involved in endogamous marriages.

Table 7.8 reveals striking differences in human capital and labor market outcomes between Mexican Americans married to Mexicans and those married to non-Mexicans. U.S.-born Mexicans married to non-Mexicans have much higher education, English proficiency, employment, and earnings than those with spouses that are also U.S.-born Mexicans,[13] whereas U.S.-born Mexicans married to Mexican immigrants have lower outcomes than any other group of Mexican Americans. Table 7.8 also shows that non-Mexican spouses of Mexican Americans have the best outcomes of any group considered and that Mexican immigrant spouses of Mexican Americans have the worst outcomes.

The magnitudes of these differences are easier to see in table 7.9, which displays regression-adjusted outcome differences constructed in a similar fashion as those shown previously in table 7.5. Here, the key independent variables are dummies indicating the type of marriage, with the reference group consisting of endogamous marriages in which both spouses are U.S.-born Mexicans. In addition, the controls for geographic locations are now dummy variables identifying the nine census divisions, the individual states of California and Texas, and whether the respondent resides in a metropolitan area.

Among Mexican American husbands, for example, those with non-Mexican wives average a year more schooling than those with U.S.-born Mexican wives. Compared to their counterparts in endogamous marriages, intermarried Mexican American men also have a 9 percentage point lower rate of English deficiency, a 3 percentage point higher rate of employment, and a 15 percent wage advantage. These unadjusted differences, from regression specification (1), narrow only slightly after controlling for geographic location and the husband's age in specification (2). The non-Mexican husbands of intermarried Mexican American women have even better outcomes than intermarried Mexican American men, particularly in terms of education and hourly earnings, but these differences are

above $500 are considered outliers and excluded. Beginning in 1990, the census questions about educational attainment were changed to ask specifically about postsecondary degrees obtained rather than years of schooling. We follow Jaeger's (1997) recommendations for how to construct a completed years of schooling variable from the revised education questions.

13. Consistent with our results, White and Sassler (2000) find that Mexican Americans married to non-Hispanic whites tend to live in neighborhoods with higher socioeconomic status than do endogamously married Mexican Americans.

Table 7.9 **Regression-adjusted outcome differences by type of marriage, 2000**

	Dependent variable									
	Education		Deficient English		Employment			Log hourly earnings		
Regressor	(1)	(2)	(1)	(2)	(1)	(2)	(3)	(1)	(2)	(3)
Husbands										
Type of marriage										
Husband foreign-born Mexican	–2.46	–2.53	.392	.401	.009	.0001	.030	–.148	–.147	.027
	(.04)	(.04)	(.004)	(.004)	(.003)	(.003)	(.004)	(.009)	(.009)	(.009)
Wife foreign-born Mexican	–.53	–.57	.104	.108	–.001	–.006	.001	–.071	–.065	–.028
	(.04)	(.04)	(.005)	(.005)	(.004)	(.004)	(.004)	(.010)	(.010)	(.010)
Husband non-Mexican	1.42	1.35	–.101	–.089	.032	.028	.013	.227	.199	.115
	(.03)	(.03)	(.003)	(.004)	(.003)	(.003)	(.003)	(.007)	(.007)	(.007)
Wife non-Mexican	1.05	.98	–.090	–.077	.031	.026	.015	.153	.125	.064
	(.03)	(.03)	(.004)	(.004)	(.003)	(.003)	(.003)	(.007)	(.007)	(.007)
Years of education							.010			.060
							(.0003)			(.001)
Deficient English							–.010			–.056
							(.003)			(.008)
Wives										
Type of marriage										
Husband foreign-born Mexican	–.70	–.81	.046	.057	–.035	–.042	–.011	–.061	–.075	–.015
	(.04)	(.04)	(.004)	(.004)	(.006)	(.006)	(.006)	(.010)	(.010)	(.010)
Wife foreign-born Mexican	–1.76	–1.86	.393	.400	–.134	–.139	–.043	–.126	–.138	.003
	(.04)	(.04)	(.005)	(.005)	(.007)	(.007)	(.007)	(.012)	(.012)	(.012)
Husband non-Mexican	1.08	.95	–.082	–.064	.059	.046	.010	.150	.130	.061
	(.03)	(.03)	(.003)	(.003)	(.005)	(.005)	(.005)	(.008)	(.008)	(.007)

(*continued*)

Table 7.9 (continued)

	Dependent variable									
	Education		Deficient English		Employment			Log hourly earnings		
Regressor	(1)	(2)	(1)	(2)	(1)	(2)	(3)	(1)	(2)	(3)
Wife non-Mexican	1.21	1.08	–.098	–.079	.063	.049	.007	.164	.144	.062
	(.03)	(.03)	(.004)	(.004)	(.005)	(.005)	(.005)	(.008)	(.008)	(.008)
Years of education							.032			.081
							(.0006)			(.001)
Deficient English							–.091			–.038
							(.005)			(.009)
Controls for:										
Geographic location	No	Yes	No	Yes	No	Yes	Yes	No	Yes	Yes
Age	No	Yes	No	Yes	No	Yes	Yes	No	Yes	Yes

Source: 2000 U.S. Census data.

Notes: The reported figures are estimated coefficients from ordinary least squares regressions run separately for husbands and wives. Standard errors are in parentheses. The samples include husbands and wives in marriages that meet the following conditions: both spouses are between the ages of 25–59, the couple currently lives together, and at least one spouse is a U.S.-born individual identified as Mexican by the census question regarding Hispanic origin. The samples for the hourly earnings regressions are further limited to individuals who were employed at some time during the calendar year preceding the census. The sample sizes are 62,734 husbands and 62,734 wives for the full samples, and 58,003 husbands and 45,857 wives for the employed samples. For the dummy variables indicating the type of marriage, the reference group consists of endogamous marriages in which both spouses are U.S.-born Mexicans. The controls for geographic location are dummy variables identifying the nine Census divisions, the individual states of California and Texas, and whether the individual resides in a metropolitan area. The controls for age are dummy variables identifying five-year age intervals.

not nearly as great as the corresponding differences just described between Mexican American men in endogamous versus exogamous marriages. Similar patterns are evident for women, except that employment differences associated with intermarriage are larger than they are for men, and outcome differences between Mexican Americans with non-Mexican spouses and non-Mexicans with Mexican American spouses tend to be smaller for women than for men.

For both husbands and wives, a comparison of specifications (2) and (3) shows that controlling for education and English proficiency dramatically shrinks employment and earnings differences across marriage types. Evidently, the human capital selectivity associated with intermarriage generates most of the labor market differences observed along this same dimension.

Our finding of positive educational and economic selectivity for intermarried Mexican Americans is not unexpected (Qian 1999). First of all, opportunities for meeting and interacting with people from other racial or ethnic groups are better for more educated Mexican Americans because highly-educated Mexican Americans tend to live, study, and work in less segregated environments. Second, given the sizeable educational deficit of the average Mexican American, better-educated Mexican Americans are likely to be closer in social class to the typical non-Mexican (Furtado 2006). Third, attending college is an eye-opening experience for many students that may work to diminish preferences for marrying within one's own racial or ethnic group. Finally, the theory of "status exchange" in marriage formulated by Davis (1941) and Merton (1941) predicts that members of lower-status minority groups (such as Mexican Americans) would tend to need higher levels of socioeconomic attainment to attract spouses who are members of higher-status majority groups.

7.4 Mexican Identification of Children

We next investigate the link between intermarriage and ethnic identification by examining what determines whether the children of Mexican Americans are identified as Mexican.[14] We start with the same sample of Mexican American marriages from the 2000 Census used in the intermarriage analyses of the preceding section, but henceforth we further restrict the sample to those marriages that have produced at least one child under age nineteen currently residing in the household. We continue to exclude marriages in which either spouse has allocated information about Hispanic origin, and we now impose this condition for the relevant children as well.

14. Along the same lines, Xie and Goyette (1997) use 1990 Census data to study the determinants of Asian identification among children produced by intermarriages between an Asian and a non-Asian.

Table 7.10 Mexican identification of youngest child by type of marriage, 2000

	Percent with youngest child identified as Mexican
Type of marriage	
Both spouses U.S.-born Mexican	98.2
	(.12)
Husband foreign-born Mexican	97.9
	(.20)
Wife foreign-born Mexican	97.8
	(.24)
Husband non-Mexican	63.5
	(.51)
Wife non-Mexican	71.1
	(.51)
All types of marriages	84.4
	(.19)

Source: 2000 U.S. Census data.

Notes: Standard errors are in parentheses. The sample includes marriages that meet the following conditions: both spouses are between the ages of 25–59, the couple currently lives together, at least one spouse is a U.S.-born individual identified as Mexican by the census question regarding Hispanic origin, and the marriage has produced at least one child under age nineteen that resides in the household. There are 37,921 such marriages.

Finally, to the extent possible with the information available in the census, we exclude families in which any of the children are suspected of being stepchildren. These restrictions produce a sample of 37,921 families.

Using the same typology of Mexican American marriages introduced earlier, table 7.10 reports for each type of marriage the percent in which the youngest child is identified as Mexican by the Hispanic origin question in the census.[15] Of primary interest for our purposes is how this percentage varies with the nativity and ethnicity of the parents. Overall, the youngest child is identified as Mexican in 84 percent of these families, which raises the possibility of substantial ethnic attrition among the children of Mexican Americans. The crucial determinant of a child's Mexican identification is whether both parents are Mexican-origin. In marriages between two U.S.-born Mexicans or between a U.S.-born Mexican and a Mexican immigrant, Mexican identification of the child is virtually assured (i.e., the relevant rates are 98 percent). In marriages between a U.S.-born Mexican

15. Because Mexican identification varies little across children within a given family, we report results using only information for the *youngest* child. Instead using information for the *oldest* child produces similar results, as would using indicators for whether *any* or *all* of the children in the family are identified as Mexican. In census data, note that parents are likely to be responding for their children. An important question is how these children will respond to survey questions about ethnic identification when they become adults and answer for themselves. See Portes and Rumbaut (2001, chapter 7) for a discussion of parental and other influences on the evolving ethnic identities of second-generation adolescents.

and a non-Mexican, however, the likelihood that the child is identified as Mexican drops to 64–71 percent, with the precise figure depending on which parent is non-Mexican, the father or the mother.[16]

Tables 7.11 and 7.12 show how measures of the human capital and labor market performance of parents correlate with whether their youngest child is identified as Mexican. Table 7.11 presents mean outcomes, by the Mexican identification of the child, and table 7.12 reports regression-adjusted differences relative to the reference group consisting of parents whose youngest child is *not* identified as Mexican. In these marriages involving at least one Mexican American spouse, parents with children not identified as Mexican average about a year more schooling and have approximately a 10 percentage point lower rate of English deficiency than do their counterparts with children designated as Mexican. Parents with children not identified as Mexican also exhibit advantages in employment (2 percentage points for men and 3 percentage points for women) and earnings (16 percent for men and 8 percent for women). Conditioning on geographic location and the parent's age reduces these outcome differences, but modestly (compare the estimates in specifications [1] and [2] of table 7.12).

Specification (3) of table 7.12 adds as regressors the dummy variables indicating the type of marriage, and this change has a dramatic impact on the results, eliminating the outcome disadvantages previously associated with the youngest child's Mexican identification. To understand what this means, recall from table 7.10 that virtually all families with two Mexican-origin parents identify their children as Mexican. Therefore, in specification (3), the dummy variable for the youngest child's Mexican identification essentially becomes an interaction term between the child's Mexican identification and a dummy variable identifying marriages involving a non-Mexican spouse. Because the type of marriage dummies capture the main effect of intermarriage (i.e., marriages involving a non-Mexican spouse), the estimated effect of the child's Mexican identification now represents outcome differences between intermarried parents whose youngest child *is* identified as Mexican and intermarried parents whose youngest child *is not* identified as Mexican. The generally small and statistically insignificant coefficients estimated on the child's Mexican identification dummy in specification (3) reveal that, *within* the group of marriages involving a non-Mexican spouse, parents' outcomes do not vary with the Mexican identification of their children.[17] In other words, intermarriage is the crucial link between the ethnic identification of Mexican American children and the

16. In regressions not reported here, we find that the impact of intermarriage on the Mexican identification of children does not change when controls are included for the age and gender of the child, the number of additional children in the family, geographic location, and various characteristics of the parents (age, education, and English proficiency).

17. Not surprisingly, this same conclusion emerges from comparing mean outcomes for the relevant groups.

Table 7.11 **Average parental outcomes by Mexican identification of youngest child, 2000**

	Parental outcomes			
	Years of education	Deficient English	Percent employed	Log hourly earnings
Fathers				
Youngest child identified as:				
Mexican	12.1	18.0	94.3	2.733
	(.02)	(.21)	(.13)	(.004)
Not Mexican	13.2	6.2	96.2	2.888
	(.03)	(.31)	(.25)	(.009)
All fathers	12.3	16.1	94.6	2.757
	(.02)	(.19)	(.12)	(.003)
Mothers				
Youngest child identified as:				
Mexican	12.3	15.8	73.0	2.454
	(.02)	(.20)	(.25)	(.004)
Not Mexican	13.1	6.5	75.9	2.535
	(.03)	(.32)	(.56)	(.010)
All mothers	12.4	14.4	73.4	2.467
	(.01)	(.18)	(.23)	(.004)

Source: 2000 U.S. Census data.

Notes: Standard errors are in parentheses. The samples include fathers and mothers in marriages that meet the following conditions: both spouses are between the ages of 25–59, the couple currently lives together, at least one spouse is a U.S.-born individual identified as Mexican by the census question regarding Hispanic origin, and the marriage has produced at least one child under age nineteen that resides in the household. The samples for the hourly earnings data are further limited to individuals who were employed at some time during the calendar year preceding the census. The sample sizes are 37,921 fathers and 37,921 mothers for the full samples, and 35,496 fathers and 27,227 mothers for the employed samples.

human capital and labor market performance of their parents. The strong correlation observed between parental skills and whether the child is identified as Mexican arises because of the intense selectivity of Mexican American intermarriage, especially in terms of human capital, and the powerful influence of intermarriage on the ethnic identification of children.

Despite the apparent strength of intermarriage selectivity and its close link to the Mexican identification of children, one could use our data to argue that these factors ultimately produce little bias in observed outcomes for Mexican Americans. For example, table 7.11 shows that, in families with at least one Mexican American parent, fathers average 1.1 years more schooling (and mothers average 0.8 years more schooling) if their youngest child is not identified as Mexican. This pattern reflects the educational selectivity of Mexican intermarriage, but the impact of such selectivity is attenuated by the small overall incidence of non-Mexican affiliation among

Table 7.12 **Regression-adjusted parental outcome differences by Mexican identification of youngest child, 2000**

	Dependent variable (parental outcomes)											
	Education			Deficient English			Employment			Log hourly earnings		
Regressor	(1)	(2)	(3)	(1)	(2)	(3)	(1)	(2)	(3)	(1)	(2)	(3)
Fathers												
Youngest child Mexican	–1.11	–1.01	–.005	.118	.107	.002	–.019	–.018	–.002	–.155	–.126	–.004
	(.04)	(.04)	(.04)	(.005)	(.005)	(.005)	(.003)	(.003)	(.004)	(.009)	(.009)	(.010)
Type of marriage												
Husband foreign-born Mexican			–2.35			.400			.004			–.135
			(.05)			(.005)			(.004)			(.010)
Wife foreign-born Mexican			–.57			.120			–.005			–.049
			(.05)			(.006)			(.004)			(.012)
Husband non-Mexican			1.30			–.079			.030			.211
			(.04)			(.005)			(.003)			(.010)
Wife non-Mexican			1.02			–.075			.030			.147
			(.04)			(.005)			(.003)			(.010)
Mothers												
Youngest child Mexican	–.86	–.74	.04	.093	.080	–.001	–.030	–.022	.013	–.081	–.066	.026
	(.04)	(.04)	(.04)	(.005)	(.005)	(.005)	(.006)	(.006)	(.007)	(.011)	(.010)	(.011)
Type of marriage												
Husband foreign-born Mexican			–.72			.063			–.034			–.057
			(.04)			(.005)			(.007)			(.012)
Wife foreign-born Mexican			–1.77			.405			–.146			–.126
			(.05)			(.006)			(.008)			(.015)

(*continued*)

Table 7.12 (continued)

	Dependent variable (parental outcomes)											
	Education			Deficient English			Employment			Log hourly earnings		
Regressor	(1)	(2)	(3)	(1)	(2)	(3)	(1)	(2)	(3)	(1)	(2)	(3)
Husband non-Mexican			.96			–.065			.028			.140
			(.04)			(.005)			(.007)			(.011)
Wife non-Mexican			1.09			–.077			.041			.167
			(.04)			(.005)			(.007)			(.011)
Controls for:												
Geographic location	No	Yes	Yes	No	Yes	Yes	No	Yes	Yes	No	Yes	Yes
Age of parent	No	Yes	Yes	No	Yes	Yes	No	Yes	Yes	No	Yes	Yes

Source: 2000 U.S. Census data.

Notes: The reported figures are estimated coefficients from ordinary least squares regressions run separately for fathers and mothers. Standard errors are in parentheses. The samples include fathers and mothers in marriages that meet the following conditions: both spouses are between the ages of 25–59, the couple currently lives together, at least one spouse is a U.S.-born individual identified as Mexican by the census question regarding Hispanic origin, and the marriage has produced at least one child under age nineteen that resides in the household. The samples for the hourly earnings data are further limited to individuals who were employed at some time during the calendar year preceding the census. The sample sizes are 37,921 fathers and 37,921 mothers for the full samples, and 35,496 fathers and 27,227 mothers for the employed samples. The dummy variable "youngest child Mexican" indicates parents whose youngest child is identified as Mexican by the census question regarding Hispanic origin; the reference group consists of parents whose youngest child is not identified as Mexican. The controls for geographic location are dummy variables identifying the nine census divisions, the individual states of California and Texas, and whether the family resides in a metropolitan area. The controls for age of the parent are dummy variables identifying five-year age intervals.

children with at least one Mexican American parent (i.e., from the bottom row of table 7.10, just 16 percent of these children fail to identify as Mexican). As a result, in table 7.11, restoring to our samples the potentially "missing" families with children not identified as Mexican only raises the average schooling of fathers from 12.1 to 12.3 years (and of mothers from 12.3 to 12.4 years). Moreover, estimates of intergenerational correlations suggest that less than half of any educational gains for parents get transmitted to their children (Couch and Dunn 1997; Mulligan 1997; Card, DiNardo, and Estes 2000). Therefore, our census analyses can directly substantiate only a tiny amount of "hidden" progress for these children of Mexican Americans: less than 0.1 years of education and similarly small amounts for the other outcomes.

We think it premature, however, to conclude that the measurement issues and potential biases that motivated this paper can be safely ignored. In our census samples, for us to know that a child is of Mexican descent, at least one of his U.S.-born parents must continue to self-identify as Mexican. We therefore miss completely any Mexican-origin families in which the relevant Mexican descendants no longer identify as Mexican. Data from the 1970 Census Content Reinterview Study, presented earlier in table 7.2, indicate that we could be missing a large share of later-generation–Mexican-origin families (e.g., well over half of Mexican descendants beyond the third generation). For this reason, we believe that our results show the direction, but not the magnitude, of measurement biases arising from selective intermarriage and ethnic identification by Mexican Americans. Estimating the magnitude of such biases would require either microdata with more detailed information about ancestors' national origins (such as that collected in the now-extinct 1970 Census Content Reinterview Study), or a complicated simulation model that starts with a cohort of Mexican immigrants and analyzes how selective intermarriage interacts with the parent-child transmission of skills and ethnic identification to produce the joint distributions of outcomes and Mexican identity across generations.[18] The census and CPS results reported here could provide some of the inputs for a simulation model of this type.

7.5 Generational Patterns

Our final set of analyses use recent CPS data to explore how patterns of intermarriage and ethnic identification vary by generation for U.S.-born Mexicans. To the extent that Mexican intermarriage or the selectivity of such intermarriage increases with generation, or that ethnic attachment declines with generation, the potential becomes greater for existing data to

18. Brito (2004) provides an initial attempt at using simulation techniques to analyze this problem.

give an inaccurate representation of the intergenerational progress of Mexican Americans.

Beginning in 1980, the Decennial Census stopped asking respondents where their parents were born. Starting in 1994, the CPS began collecting this information on a regular basis from all respondents. As a result, the CPS is currently the best large-scale U.S. data set for investigating how outcomes vary by immigrant generation. Using the CPS information on the nativity of each individual and his parents, we define three broad categories of immigrant generation for Mexicans. The first generation consists of immigrants: foreign-born individuals whose parents were also born outside of the United States. The second generation includes U.S.-born individuals who have at least one foreign-born parent. The designation "third and higher generation" applies to U.S. natives whose parents are also natives. For ease of exposition, we will often refer to this last group as the "3rd+ generation" or simply the third generation. Compared to the census data analyzed earlier, the main advantage of the CPS is this ability to distinguish between the second and higher generations of U.S.-born Mexicans. For our purposes, important drawbacks of the CPS data are the smaller sample sizes and the absence of information about English proficiency.

We analyze microdata from the March CPS files for the years 1996, 1998, 2000, and 2002.[19] Our CPS samples and variables are created using the same procedures that we employed with the 2000 Census data. In the CPS data, these procedures yield a sample of 4,407 marriages for our intermarriage analyses.

Table 7.13 shows the nativity/ethnicity distributions of the spouses of the U.S.-born Mexican husbands and wives in our CPS sample of marriages. This table is comparable to table 7.6 presented earlier for the 2000 Census data, except that the current table distinguishes between second- and third-generation Mexicans. Intermarriage by Mexican Americans rises between the second and third generations, driven by increased marriage to U.S.-born, non-Hispanic whites. Among Mexican American husbands, the proportion married to non-Mexicans grows from 31 percent for the second generation to 34 percent for the third generation. Among Mexican American wives, the corresponding increase is from 28 percent to 34 percent. The biggest difference between generations, however, is in the composition of endogamous Mexican marriages. For both husbands and wives, the rate of marriage to third-generation Mexicans doubles between the second and the third generation, and simultaneously the rate of marriage to Mexican immigrants is cut to a third of its initial level. All told,

19. The CPS sample rotation scheme implies that about half of the households will be the same in any two March surveys from adjacent years, so to obtain independent samples we skip odd-numbered years.

Table 7.13 **Nativity/ethnicity distributions of the spouses of U.S.-born Mexicans, by generation (%)**

	U.S.-born Mexican			
	2nd generation		3rd+ generation	
Nativity/ethnicity of spouse	Husbands	Wives	Husbands	Wives
U.S.-born				
2nd generation Mexican	21.9	19.4	9.7	10.3
3rd+ generation Mexican	24.9	18.9	49.2	44.4
Other Hispanic	2.0	1.9	1.6	1.3
Non-Hispanic				
White	23.4	19.3	28.8	28.3
Black	.5	1.6	.3	1.2
Asian	.6	.5	.5	.6
Other race	.9	.5	.6	.8
Foreign-born				
Mexican	22.5	34.1	6.8	11.1
Other Hispanic	1.5	1.8	.8	.7
Non-Hispanic:				
White	1.1	1.5	1.5	1.1
Black	0.0	0.0	0.0	.1
Asian	.8	.5	.4	.1
Other race	0.0	0.0	0.0	.1
	100.0	100.0	100.0	100.0

Source: March 1996–2002 CPS data.

Notes: The sample includes marriages that meet the following conditions: both spouses are between the ages of 25–59, the couple currently lives together, and at least one spouse is a U.S.-born individual identified as Mexican by the CPS question regarding Hispanic origin. For the U.S.-born Mexican husbands and wives involved in these marriages, the table shows the nativity/ethnicity distributions of their spouses. There are 4,407 such marriages. These marriages involve 2,819 U.S.-born Mexican husbands (882 from the 2nd generation and 1,937 from the 3rd+ generation) and 3,141 U.S.-born Mexican wives (996 from the 2nd generation and 2,145 from the 3rd+ generation).

around half of second-generation Mexican husbands and wives have spouses who are first- or second-generation Mexicans, whereas the same is true for only about a fifth of third-generation Mexicans. In this sense, intergenerational assimilation in marriage occurs for Mexican Americans not just through increased intermarriage with non-Mexicans, but also through sharply higher rates of marriage to later-generation Mexicans.

For our CPS sample of marriages, table 7.14 applies the typology introduced previously in table 7.7. In table 7.14, the column labeled "2nd generation" shows the distribution by type for all sample marriages that involve a second-generation Mexican, and the "3rd+ generation" column reports the same distribution for all marriages that involve a third-generation Mexican. Consequently, there exists some overlap between the

Table 7.14 Types of marriages involving U.S.-born Mexicans, by generation

Type of marriage	Percent of sample	
	2nd generation	3rd+ generation
Both spouses U.S.-born Mexican	35.7	43.5
Husband foreign-born Mexican (wife U.S.-born Mexican)	20.2	7.6
Wife foreign-born Mexican (husband U.S.-born Mexican)	11.8	4.2
Husband non-Mexican (wife U.S.-born Mexican)	16.3	23.5
Wife non-Mexican (husband U.S.-born Mexican)	16.1	21.2
	100.0	100.0

Source: March 1996–2002 CPS data.

Notes: The sample includes marriages that meet the following conditions: both spouses are between the ages of 25–59, the couple currently lives together, and at least one spouse is a U.S.-born individual identified as Mexican by the CPS question regarding Hispanic origin. There are 4,407 such marriages, with 1,685 of these marriages involving at least one 2nd generation Mexican and 3,130 involving at least one 3rd+ generation Mexican (408 marriages are between a 2nd generation Mexican and a 3rd+ generation Mexican).

two columns because marriages between a second-generation Mexican and a third-generation Mexican will be counted in the first row of both columns. Between the second and third generations, table 7.14 shows that Mexican American marriages undergo a marked increase in the involvement of non-Mexicans and a large decline in the involvement of Mexican immigrants. Given our earlier finding that marriages to non-Mexicans are particularly susceptible to ethnic leakage (see table 7.10), the increased prevalence of intermarriage across generations raises the potential for intergenerational attrition of Mexicans in standard data sources.

For the CPS data, table 7.15 replicates the Census analysis presented earlier in table 7.8. In terms of the outcome variables available in the CPS—education, employment, and hourly earnings—the patterns of intermarriage selectivity are similar to those found in the census data. Moreover, the CPS data show these patterns to be similar for second- and third-generation Mexicans. Although the extent of intermarriage selectivity for Mexicans does not appear to increase between the second and later generations, neither does it appear to diminish. Given this stability in intermarriage selectivity, the rising rate of Mexican intermarriage across generations could by itself produce biased intergenerational comparisons for this population.

Finally, table 7.16 reproduces with CPS data the analysis from table 7.10 of how the youngest child's Mexican identification varies with intermarriage. Once again, we find that a child is almost certain to be identified as Mexican when both his parents are Mexican-origin. Moreover, this pattern does not weaken across generations. Overall, the rate at which the youngest child is identified as Mexican in the CPS data falls from 82 percent for mar-

Table 7.15 Average outcomes by type of marriage and generation

	Years of education		Percent employed		Log hourly earnings	
	2nd	3rd+	2nd	3rd+	2nd	3rd+
Husbands						
Type of marriage						
Both spouses U.S.-born Mexican	12.1	12.0	94.8	93.1	2.642	2.612
	(.11)	(.07)	(.90)	(.69)	(.024)	(.017)
Husband foreign-born Mexican	10.0	9.6	95.3	92.8	2.484	2.454
	(.22)	(.27)	(1.15)	(1.68)	(.031)	(.045)
Wife foreign-born Mexican	11.3	12.1	98.0	90.2	2.499	2.542
	(.22)	(.24)	(1.00)	(2.60)	(.041)	(.054)
Husband non-Mexican	13.6	13.7	94.5	96.5	2.901	2.859
	(.13)	(.09)	(1.37)	(.68)	(.039)	(.024)
Wife non-Mexican	13.2	13.1	95.9	95.2	2.810	2.808
	(.13)	(.09)	(1.20)	(.83)	(.036)	(.022)
All husbands	12.0	12.4	95.4	94.2	2.662	2.699
	(.08)	(.05)	(.51)	(.42)	(.015)	(.011)
Wives						
Type of marriage						
Both spouses U.S.-born Mexican	12.2	12.0	76.5	74.3	2.348	2.282
	(.10)	(.07)	(1.73)	(1.18)	(.026)	(.018)
Husband foreign-born Mexican	11.7	11.5	72.1	69.2	2.288	2.234
	(.15)	(.16)	(2.44)	(3.01)	(.037)	(.052)
Wife foreign-born Mexican	10.5	10.9	58.6	56.8	2.180	2.187
	(.25)	(.30)	(3.51)	(4.33)	(.050)	(.062)
Husband non-Mexican	13.4	13.2	80.4	77.6	2.512	2.460
	(.12)	(.07)	(2.40)	(1.54)	(.043)	(.025)
Wife non-Mexican	13.2	13.4	79.0	77.9	2.534	2.511
	(.13)	(.08)	(2.48)	(1.61)	(.041)	(.029)
All wives	12.2	12.5	74.5	74.7	2.381	2.370
	(.07)	(.04)	(1.06)	(.78)	(.017)	(.013)

Source: March 1996–2002 CPS data.

Notes: Standard errors are in parentheses. The samples include husbands and wives in marriages that meet the following conditions: both spouses are between the ages of 25–59, the couple currently lives together, and at least one spouse is a U.S.-born individual identified as Mexican by the census question regarding Hispanic origin. The samples for the hourly earnings data are further limited to individuals who were employed at some time during the calendar year preceding the CPS. For the marriages involving a 2nd generation Mexican, the sample sizes are 1,685 husbands and 1,685 wives for the full samples, and 1,581 husbands and 1,220 wives for the employed samples. For the marriages involving a 3rd+ generation Mexican, the sample sizes are 3,130 husbands and 3,130 wives for the full samples, and 2,899 husbands and 2,262 wives for the employed samples.

riages involving a second-generation Mexican to 73 percent for marriages involving a higher-generation Mexican. This decline arises primarily from the changing composition of marriage types across generations, in particular, the increased prevalence in later generations of intermarriage between Mexican Americans and non-Mexicans.

Table 7.16 **Mexican identification of youngest child by type of marriage and generation**

	Percent with youngest child identified as Mexican	
	2nd generation	3rd+ generation
Type of marriage		
Both spouses U.S.-born Mexican	99.3	98.9
	(.41)	(.33)
Husband foreign-born Mexican	98.2	97.7
	(.79)	(1.12)
Wife foreign-born Mexican	99.4	98.0
	(.62)	(1.41)
Husband non-Mexican	48.2	47.4
	(3.59)	(2.23)
Wife non-Mexican	40.1	34.3
	(3.46)	(2.20)
All types of marriages	81.7	73.3
	(1.09)	(.95)

Source: March 1996–2002 CPS data.

Notes: Standard errors are in parentheses. The sample includes marriages that meet the following conditions: both spouses are between the ages of 25–59, the couple currently lives together, at least one spouse is a U.S.-born individual identified as Mexican by the CPS question regarding Hispanic origin, and the marriage has produced at least one child under age nineteen that resides in the household. There are 3,174 such marriages, with 1,261 of these marriages involving at least one 2nd generation Mexican and 2,193 involving at least one 3rd+ generation Mexican (280 marriages are between a 2nd generation Mexican and a 3rd+ generation Mexican).

7.6 Conclusion

In this paper, we look for evidence on whether selective intermarriage and selective ethnic identification might bias observed measures of socioeconomic progress for later generations of Mexican Americans. Ideal data for this purpose would allow us to identify which individuals are descended from Mexican immigrants and how many generations have elapsed since that immigration took place. We could then simply compare outcomes for this "true" population of Mexican descendants with the corresponding outcomes for the subset of Mexican descendants who continue to self-identify as Mexican-origin. Unfortunately, we do not have access to micro-data of this sort, so we instead adopt much less direct strategies for trying to shed light on this issue.

We begin by examining 1980 Census data that provide an indicator for Spanish surnames in addition to the information about Hispanic origin typically used to identify Mexican ethnics. Our hope is that, particularly for men, the presence of a Spanish surname in the five southwestern states provides an objective, albeit imperfect, indicator of Mexican ancestry that

allows us to identify some individuals of Mexican descent who fail to self-report as Hispanic and who are therefore missed by subjective indicators such as the Hispanic-origin question in the census. If so, then differences in human capital and labor market outcomes between Spanish-surnamed individuals who do and do not self-identify as Hispanic might reveal something about the selective nature of ethnic identification for Mexican Americans. We find that U.S.-born men identified as Hispanic by surname only have more human capital and better labor market outcomes than U.S.-born men identified as Hispanic by both self-report and surname. The same pattern holds for women, though in this case interpretation is clouded by the common practice of married women taking the surname of their husbands. Overall, the results are consistent with the notion that individuals of Mexican descent who no longer self-identify as Hispanic are positively selected in terms of socioeconomic status. Relatively few individuals with Spanish surnames fail to self-identify as Hispanic, however, so it would be unwise to regard these results as anything more than suggestive.

Using data from the 2000 Census and recent March Current Population Surveys, we then investigate the extent and selectivity of Mexican intermarriage and how such intermarriage influences the Mexican identification of children. We show that U.S.-born Mexican Americans who marry non-Mexicans are substantially more educated and English proficient, on average, than are Mexican Americans who marry coethnics (whether they be Mexican Americans or Mexican immigrants). In addition, the non-Mexican spouses of intermarried Mexican Americans possess relatively high levels of schooling and English proficiency, compared to the spouses of endogamously married Mexican Americans. The human capital selectivity of Mexican intermarriage generates corresponding differences in the employment and earnings of Mexican Americans and their spouses. Moreover, the children of intermarried Mexican Americans are much less likely to be identified as Mexican than are the children of endogamous Mexican marriages. These forces combine to produce strong negative correlations between the education, English proficiency, employment, and earnings of Mexican American parents and the chances that their children retain a Mexican ethnicity.

Despite the apparent strength of intermarriage selectivity and its close link to the Mexican identification of children, our analyses cannot *directly* substantiate significant biases in measuring the intergenerational progress of Mexican Americans. The data used here are inadequate, however, because they overlook families descended from Mexican immigrants in which neither parent self-identifies as Mexican. Indeed, data from the 1970 Census Content Reinterview Study indicate that we could be missing a large share of later-generation–Mexican-origin families (e.g., well over half of Mexican descendants beyond the third generation). For this reason, we

believe that our results show the direction, but not the magnitude, of measurement biases arising from selective intermarriage and ethnic identification by Mexican Americans. Estimating the magnitude of such biases would require either microdata with more detailed information about ancestors' national origins (such as that collected in the now-extinct 1970 Census Content Reinterview Study), or a complicated simulation model that starts with a cohort of Mexican immigrants and analyzes how selective intermarriage interacts with the parent-child transmission of skills and ethnic identification to produce the joint distributions of outcomes and Mexican identity across generations. The empirical results reported here could provide some of the inputs for a simulation model of this type.

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