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California's Mexican-Origin Workers*

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EXECUTIVE SUMMARY

Mexican immigrants and persons of Mexican descent constitute an important and rapidly growing segment of California's labor force (18 percent in 1990, up from 13 percent in 1980). They are also among the most economically disadvantaged workers in California: in 1989, Mexican-origin households earned on average 33 percent less than non-Hispanic white households, 30 percent less than Asian households, and 6 percent less than black households.

Disagreement persists over the prospects for Mexican Americans joining the economic mainstream of American society. Chavez (1991) claims that the large inflows of recent immigrants from Mexico create a deceptively pessimistic picture of Mexican-origin workers in the U.S. labor market, and that U.S.-born, English-speaking Mexican Americans have enjoyed rapid progress over the last couple of decades and are approaching the labor market status of non-Hispanic whites. According to Chavez, Mexican Americans are climbing the economic ladder across generations in the same way that earlier waves of white immigrants from Europe did. In contrast, Chapa (1990) sees little evidence that Mexican Americans are making steady progress toward economic parity with Anglos, and he worries about the emergence of a Chicano underclass with many of the same problems faced by inner-city blacks.

Using national Current Population Survey data from November 1979 and 1989 and Census data from 1990 for California and Texas, I shed light on this debate by analyzing in detail the wage structure and relative earning power of U.S.-born Mexican-American men. I address the following questions:

1. Is there any evidence of economic progress across generations of Mexican Americans (i.e., as we compare first-generation Mexican immigrants with the second-generation children of immigrants and the third-generation grandchildren of immigrants)?

2. What are the underlying reasons for the relatively low wages earned by Mexican-American workers? In particular, to what extent are their earnings depressed by low levels of observable skill measures such as education and English language proficiency, and to what extent does the wage disadvantage arise because Mexican Americans receive lower labor market rewards for their skills?

3. Did Mexican Americans gain or lose ground relative to non-Hispanic whites during the 1980s? How have recent shifts in the wage structure—especially the increased labor market return to education and widening earnings inequality—affected Mexican-American workers?

In studying these questions, I focus on the experiences of U.S.-born men, in order to avoid complications arising from the selective labor force participation of women and the unique problems of labor market adjustment confronted by immigrants. I also focus the analysis on hourly earnings, because previous research indicates that the income disadvantage suffered by Mexican-origin households stems

primarily from low wages rather than from below-average rates of labor force participation or above-average rates of unemployment.

Similar research on Hispanic and Mexican-origin workers has been conducted in the past, although there is relatively little compared to the voluminous literature on the economic standing of blacks. My analysis distinguishes itself in several ways. First, using special Current Population Survey data, I examine the wage structure of third- and higher-generation Mexican Americans, a population composed of the grandchildren and later descendants of Mexican immigrants to the United States. In this way, I hope to isolate a group of Hispanic workers that has had ample time to adapt to the U.S. labor market. Second, the availability of recent data allows me to track changes over the 1980s, a particularly turbulent decade for minorities and other groups with substantial proportions of low-skill workers. Finally, using 1990 Census data, I conduct separate analyses for California and Texas, the two states that are home to the vast majority of Mexican-American workers.

Main Findings

The main empirical findings are as follows:

1. In November 1989, about 83 percent of Mexican-American men aged 25-61 held jobs, an employment rate squarely between the corresponding rates of 78 percent for blacks and 90 percent for non-Hispanic whites. Although over the 1980s the employment situation of Mexican Americans deteriorated somewhat relative to whites, even at the end of the decade employment differences between Mexican-American and white workers were small compared to wage differences.

2. In overall comparisons with other groups, the average hourly earnings of Mexican-origin workers are depressed by the large proportion of very-low-paid immigrants, but even U.S.-born Mexican Americans are at a substantial wage disadvantage. In 1989, Mexican-American men in California averaged 25 percent lower wages than white men, about the same wage deficit suffered by blacks. Minority wage gaps were even larger in Texas.

3. Minority wage deficits widened during the 1980s, particularly for Mexican Americans. Among third- and higher-generation workers throughout the United States, the wage gap between Mexican-American and white men grew by 8 percentage points (from 14 percent to 22 percent), whereas the black-white differential rose by 4 percentage points (from 20 to 24 percent). These changes partly reflect the fact that earnings inequality and the labor market returns to various dimensions of worker skill were increasing over this period, but most of the decline in the relative wages of Mexican-American and black workers is attributable to minorities' losing ground to low-skill, low-wage whites.

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4. Mexican Americans possess disturbingly low levels of human capital. In 1989, U.S.-born Mexican Americans averaged a year and a half less education than whites and a third of a year less than blacks. Compared to whites in either California or Texas, Mexican Americans are more than three times as likely to not finish 12 years of schooling and less than a third as likely to obtain a bachelor's degree. Furthermore, even among men born and presumably educated in the United States, substantial numbers of Mexican Americans lack fluency in English. In California, 10 percent of Mexican-American workers report that they speak English less than very well, and the incidence of English deficiency is more than twice as high in Texas. English proficiency is higher for younger cohorts of Mexican-American workers, which suggests that language skills are improving over time. The data provide no indication, however, that the education distribution of Mexican Americans is converging with that of whites—a situation that stands in stark contrast to the more encouraging educational trend of blacks.

5. Mexican-American workers earn low wages primarily because they possess less human capital than whites, not because they receive lower rewards for their skills. Among U.S.-born Mexican-American men in both California and Texas, three-quarters of their wage deficit is attributable to their relative youth, their English language deficiencies, and especially their lower educational attainment. By itself, insufficient schooling accounts for almost half the wage gap. By contrast, these same human capital variables explain only about a third of the black-white wage deficit. Among third- and higher-generation men, the wage structure is remarkably similar for Mexican Americans and whites. Indeed, when adjusted for skill differences, the average earnings of Mexican Americans are virtually indistinguishable from those of non-Hispanic white ethnic groups such as Germans, Italians, Swedes, and the French, whereas the average earnings of blacks remain conspicuously low.

What are the implications of these findings for public policy? First, it should be emphasized that these results do *not* imply that laws prohibiting employment and wage discrimination against Mexican Americans are unnecessary or irrelevant. Instead, the results suggest only that, given the existing level of enforcement of labor market antidiscrimination laws, increased vigilance in this area is likely to benefit Mexican Americans less than blacks, because differences in the wage structure and returns to skill are currently much smaller between Mexican Americans and whites than between blacks and whites. It may well be that the prevailing legal framework plays an important role in maintaining the structural labor market similarities of Mexican Americans and whites.

My analysis indicates that the key to improving the economic status of Mexican Americans lies in raising education levels. That more and better schooling would help any group has the ring of a truism, especially in these times of increasing demand for skilled workers. But to a much larger extent than for blacks, educational improvements are crucial to the earnings progress of Mexican Americans,

both because their schooling levels continue to lag behind virtually all other groups in American society, and because U.S.-born Mexican Americans earn a relatively high return on educational investments, especially in California. Finding a way to somehow eliminate the educational disadvantage of Mexican Americans would go a long way toward bringing this group into the economic mainstream.

INTRODUCTION

Mexican immigrants and persons of Mexican descent constitute an important and rapidly growing segment of California's labor force (18 percent in 1990, up from 13 percent in 1980). They are also among the most economically disadvantaged workers in California: in 1989, Mexican-origin households earned on average 33 percent less than non-Hispanic white households, 30 percent less than Asian households, and 6 percent less than black households.[1]

Disagreement persists over the prospects for Mexican Americans joining the economic mainstream of American society. Chavez (1991) claims that the large inflows of recent immigrants from Mexico create a deceptively pessimistic picture of Mexican-origin workers in the U.S. labor market, and that U.S.-born, English-speaking Mexican Americans have enjoyed rapid progress over the last couple of decades and are approaching the labor market status of non-Hispanic whites. According to Chavez, Mexican Americans are climbing the economic ladder across generations in the same way that earlier waves of white immigrants from Europe did. In contrast, Chapa (1990) sees little evidence that Mexican Americans are making steady progress toward economic parity with Anglos, and he worries that a Chicano underclass could emerge with many of the same problems faced by inner-city blacks.

In this report, I shed light on this debate by analyzing the hourly earnings of Mexican-American men using data from the 1979 and 1989 Current Population Survey and the 1990 Census. I address the following questions:

1. Is there any evidence of economic progress across generations of Mexican Americans (i.e., as we compare first-generation Mexican immigrants with the second-generation children of immigrants and the third-generation grandchildren of immigrants)?

2. What are the underlying reasons for the relatively low wages earned by Mexican-American workers? In particular, to what extent are their earnings depressed by low levels of observable skill measures such as education and English language proficiency, and to what extent does the wage disadvantage arise because Mexican Americans receive lower labor market rewards for their skills?

3. Did Mexican Americans gain or lose ground relative to non-Hispanic whites during the 1980s? How have recent shifts in the wage structure—especially the increased labor market return to education and widening earnings inequality—affected Mexican-American workers?

In studying these questions, I focus on the experiences of U.S.-born men in order to avoid complications arising from the selective labor force participation of women and the unique problems of

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[1] The statistics cited in this paragraph derive from published tabulations of 1990 Census data (U.S Bureau of the Census 1993)

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labor market adjustment confronted by immigrants. I also focus the analysis on hourly earnings, because previous research indicates that the income disadvantage suffered by Mexican-origin households stems primarily from low wages rather than from below-average rates of labor force participation or above-average rates of unemployment (Abowd and Killingsworth 1984; Borjas 1984; Reimers 1984; Bean and Tienda 1987). This is one important way in which labor market outcomes differ for Mexican Americans and blacks; other differences are highlighted throughout the report.

Similar research on Hispanic and Mexican-origin workers has been conducted in the past (e.g., Chiswick 1977a; McManus, Gould, and Welch 1983; Reimers 1983; Borjas 1984; Grenier 1984; Bean and Tienda 1987; DeFreitas 1991; Smith 1991), although there is relatively little compared to the voluminous literature on the economic standing of blacks. My analysis distinguishes itself in several ways. First, using special Current Population Survey data, I examine the wage structure of third- and higher-generation Mexican Americans, a population composed of the grandchildren and later descendants of Mexican immigrants to the United States. In this way, I hope to isolate a group of Hispanic workers that has had ample time to adapt to the U.S. labor market. Second, the availability of recent data allows me to track changes over the 1980s, a particularly turbulent decade for minorities and other groups with substantial proportions of low-skill workers. Finally, using 1990 Census data, I conduct separate analyses for California and Texas, the two states that are home to the vast majority of Mexican-American workers.[2]

ANALYSIS OF CURRENT POPULATION SURVEY DATA

The Current Population Survey (CPS) is the monthly survey of about 60,000 households nationwide that the government uses to calculate unemployment rates and other important labor market statistics. In this section, I analyze individual-level CPS data from November 1979 and November 1989. In addition to the demographic and labor force information routinely collected in the CPS, these months included supplemental questions about country of birth for the respondent and his parents, and about the respondent's ability to speak English. As a result, these surveys provide the best available data for studying the labor market attainments of third- and higher-generation Mexican Americans and for making comparisons among Mexican-origin workers of different generations.

Other large, nationally representative data sources lack at least one key piece of information. For example, microdata from the decennial Censuses of 1940 through 1970 identify parents' birthplace, but

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[2] Recent work by Reimers (1994, 1995) also focuses on the labor market experiences of Mexican Americans in California and Texas.

no direct measure of Mexican ethnicity is available for U.S. natives with U.S.-born parents.[3] Starting in 1980, the Census added the Spanish origin question currently used to identify people of Mexican descent, but at the same time the questions about parents' birthplace were dropped. Although the revised CPS basic questionnaire introduced in January 1994 now elicits the nativity of each individual and his parents, information on English language proficiency is absent. The 1976 Survey of Income and Education (SIE) provides data similar to those analyzed here, but I prefer the November 1979 and 1989 CPS data because they are more recent and allow for comparisons across time.

The Sample

I restrict the analysis to male wage and salary workers aged 18-61. Women are excluded to minimize biases arising from selective labor force participation, and the self-employed cannot be studied because the basic monthly CPS collects no data on their income. Unlike the 1990 Census data analyzed later in this report, the CPS samples include individuals from across the United States.

From the information on the nativity of each person and his parents, I define three generation categories. 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 U.S.-born.[4] I exclude from the sample the small number of foreign-born individuals who have at least one U.S.-born parent. Also excluded are individuals for whom generation cannot be determined because of missing birthplace data for themselves or either parent.

Using the information on race and Spanish origin, I define three mutually exclusive ethnic groups: non-Hispanic whites, non-Hispanic blacks, and Mexicans. I exclude individuals from other race and Spanish-origin groups. Because of small sample sizes, I also exclude first- and second-generation blacks. As a result, the final sample includes seven groups defined according to ethnicity and generation (three generations each of whites and Mexicans, plus third-generation blacks).

Each month, the CPS collects earnings data only for the quarter of the respondents who are in outgoing rotation groups. For the remainder of the sample, I merged earnings information from the CPS

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[3] One version of the long form of the 1970 Census introduced a Spanish origin question similar to that included in later censuses, but households asked this question were not asked about parents' birthplace. Several researchers, including Chiswick (1977a) and Chapa (1990), have attempted to identify third- and higher-generation Mexican Americans from 1970 Census data on respondent's birthplace, parents' birthplace, Spanish surname, and state of residence, but this approach generates considerable error (see Fernandez 1977, Winkleby and Rockhill 1992, and Appendix Table 3A.1 in DeFreitas 1991). Bean and Tienda (1987, chapter 2) provide an informative discussion of the various Census questions that can be used to identify Hispanics and how these questions have changed over time.

[4] Therefore, strictly speaking, the group I will refer to as the third generation actually includes the third and all higher-order generations.

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outgoing rotation group files with the November CPS data. In this way, I obtained earnings data for just under 90 percent of the workers for whom such data are unavailable in the November surveys.[5]

The data on usual weekly earnings are top-coded at $999 in the 1979 CPS and $1,923 in the 1989 CPS. According to the GNP deflator for personal consumption expenditure, the price level rose by 63 percent between November 1979 and November 1989. Therefore, in order to impose the same top-code (in real dollars) across years, I lower the weekly earnings ceiling in the 1989 data to $1,625 ($999 inflated from 1979 to 1989 dollars). Hourly earnings are then computed as the ratio of usual weekly earnings to usual weekly hours of work. For 1979, workers with computed hourly wages below $1 or above $100 are considered outliers and are excluded. For 1989, corresponding wage thresholds of $1.63 and $163 are applied so as to be consistent in real terms.[6]

Basic Patterns

Table 1 reports summary statistics, by ethnicity and generation, for the key variables in my analysis. Sample averages from the 1979 data occupy the top panel of the table and the 1989 averages are presented in the bottom panel, with standard errors shown in parentheses.[7] Use of the CPS sampling weights has little effect on the results, so only unweighted estimates are reported throughout this section.

Before turning to the hourly earnings data that are the focus of my analysis, let us consider the employment rates presented in the first row of each panel. These numbers indicate the fraction of all men aged 25-61 who held jobs during the CPS survey week.[8] Among U.S. natives (the second and third generations), the employment rate of Mexican-origin men lies between those of blacks and whites. In addition, the employment situation for Mexican Americans shows signs of weakening over the decade.

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[5] The merged earnings data come from the three months immediately following the November surveys. The match keys used to merge these data are rotation group, household identification number, person identification number (or line number), household number (which indicates whether the household occupying a residential unit has changed), sex, race, and age. Because a birthday can take place between survey months, age is allowed to increase by up to one year without invalidating a match. The CPS samples housing units rather than individuals or families, so nonmatches typically occur when people change residences between survey dates.

[6] Few observations are affected by earnings top-coding or the deletion of wage outliers, so very similar results are obtained whether the sample includes or excludes these workers. I also obtain similar (though less precise) estimates when I exclude from the sample workers with merged earnings data.

[7] Standard errors indicate the precision of estimates. Sampling error arises because estimates are calculated using samples that represent only a small fraction of the underlying population. Generally speaking, estimates will be more precise the larger the sample and the less variable the outcome being considered. If the only source of error is sampling error (as opposed to other types of error that impart systematic bias), then, for the averages reported in Table 1, the chances are about 95 percent that the true average is within two standard errors (plus or minus) of its estimate.

[8] Employment status is reported every month for each CPS respondent, which eliminates the need to use merged data from the outgoing rotation group files, and therefore the employment rates are computed directly from the November CPS data. Individuals younger than age 25 are excluded from these calculations because they may still be in school, but similar patterns emerge when the 18-24 age group is included. Self-employed workers remain in the sample used to compute employment rates, but not in the sample used to analyze wages.

Table 1

Variable Means, by Ethnicity and Generation, 1979 and 1989 CPS

Sample/Variable	Whites, by Generation				Mexicans, by Generation				Third-Generation Blacks
	All	First	Second	Third	All	First	Second	Third	
1979									
Males Aged 25-61:									
Employment Rate	.902	.897	.884	.905	.877	.897	.850	.876	.806
	(.002)	(.010)	(.006)	(.002)	(.011)	(.017)	(.024)	(.019)	(.008)
Sample Size	25,415	852	3,121	21,442	827	302	226	299	2,289
Male Wage & Salary Workers Aged 18-61:									
Hourly Earnings	8.05	8.58	8.85	7.94	6.21	4.99	6.96	6.80	6.32
	(.03)	(.17)	(.08)	(.03)	(.11)	(.13)	(.24)	(.19)	(.07)
Experience	17.73	23.45	25.06	16.65	17.85	20.11	20.62	14.29	19.08
	(.09)	(.52)	(.27)	(.09)	(.44)	(.70)	(.99)	(.64)	(.31)
Education	12.90	12.37	12.97	12.91	9.68	6.94	10.61	11.46	11.45
	(.02)	(.16)	(.05)	(.02)	(.14)	(.23)	(.27)	(.17)	(.07)
Speaks English Very Well	.990	.685	.992	.999	.578	.143	.742	.848	.998
	(.0007)	(.019)	(.002)	(.0002)	(.029)	(.021)	(.031)	(.020)	(.001)
Sample Size	21,641	613	2,282	18,746	803	279	194	330	1,874
1989									
Males Aged 25-61:									
Employment Rate	.900	.872	.881	.902	.854	.878	.836	.832	.775
	(.002)	(.011)	(.007)	(.002)	(.011)	(.015)	(.026)	(.019)	(.009)
Sample Size	26,371	876	1,930	23,565	1,108	509	207	392	2,387
Male Wage & Salary Workers Aged 18-61:									
Hourly Earnings	12.85	14.73	14.65	12.66	8.83	7.48	10.15	9.84	9.56
	(.05)	(.34)	(.20)	(.05)	(.16)	(.18)	(.41)	(.30)	(.12)
Experience	17.72	22.03	22.29	17.26	16.19	17.77	15.68	14.43	18.01
	(.08)	(.51)	(.14)	(.08)	(.16)	(.54)	(.85)	(.55)	(.28)
Education	13.38	13.53	13.71	13.35	10.26	8.26	11.81	11.97	12.34
	(.02)	(.15)	(.07)	(.02)	(.12)	(.19)	(.20)	(.12)	(.06)
Speaks English Very Well	.992	.759	.991	.999	.568	.182	.857	.906	.998
	(.0586)	(.018)	(.003)	(.0002)	(.016)	(.018)	(.025)	(.016)	(.001)
Sample Size	20,791	543	1,400	18,848	971	410	189	342	1,844

Note: Standard errors are in parentheses. Data are from the November 1979 and November 1989 CPS tapes. Hourly earnings are computed as the ratio of usual weekly earnings to usual weekly hours of work. In tabulating English language proficiency, I presume that those who speak only English speak it "very well."

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Between 1979 and 1989, the employment rate fell by 1.4 percentage points for second-generation Mexican Americans (from 85 percent to 83.6 percent) and by 4.4 percentage points for third-generation Mexican Americans (from 87.6 percent to 83.2 percent), whereas the employment rate of U.S.-born whites was stable (at around 90 percent) over the same period. The black employment rate declined by 3.1 percentage points (from 80.6 percent to 77.5 percent) during the 1980s.[9]

Even in 1989, however, the employment rate of third-generation Mexican Americans is only 8 percent (7 percentage points) lower than that of third-generation whites, and the same differential is smaller among second-generation men. As we shall see shortly, wage differentials between white and Mexican-American workers are much larger than the corresponding employment differentials. Indeed, Reimers's (1984) analysis of the 1976 SIE data indicates that the low hourly earnings of heads of Mexican-origin households account for most of the income differential between white and Mexican-origin families in the United States. In other words, Mexican-origin households are poor primarily because they earn low wages, not because they work less than other households.[10]

The rest of this section analyzes the hourly wages of Mexican-origin workers using the sample described above: male wage and salary workers aged 18-61 for whom earnings data could be obtained, either directly from the November surveys or by merging information from outgoing rotation groups in subsequent months.[11] For these workers, Table 1 presents averages of hourly wages and three human capital variables—experience, education, and English language proficiency—that are important determinants of wages. Wages are measured in nominal dollars for each year. Education represents completed years of schooling, and potential labor market experience is computed as age minus education minus 6. The November CPS questions on English proficiency are the same as those in the 1980 and 1990 censuses. All respondents were asked whether they "speak a language other than English at home," and only those who answered affirmatively were asked how well they speak English, with possible responses of "very well," "well," "not well," or "not at all." For the tabulations reported in Table 1,

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[9] An estimate is said to be "statistically significant" when, given the magnitude and sampling error of the estimate, it is unlikely that the true value is zero. For example, if an estimate is statistically significant at the 5 percent level, then there is a 95 percent chance that the true value is different from zero. Of the changes in employment rates just discussed, only that for blacks is statistically significant (at the 1 percent level), although the change for third-generation Mexicans is close (just missing at the 10 percent level).

[10] Although my analysis focuses on U.S.-born Mexican Americans, it is interesting to note the high employment rate of immigrants from Mexico. In 1979, the employment rate of 89.7 percent for Mexican immigrants is very close to the rates for whites of all three generations. The employment rate of Mexican immigrants declined a bit over the decade (to 87.8 percent in 1989), but white immigrants experienced a very similar decline (from 89.7 percent in 1979 to 87.2 percent in 1989). For either immigrant group, the reduction in the employment rate fails to achieve statistical significance.

[11] The final sample contains 24,318 workers in 1979 and 23,606 in 1989. Sample sizes by ethnicity and generation are reported in Table 1.

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English monolinguals are presumed to speak English "very well" and are grouped together with bilinguals who indicated the highest level of English proficiency.

Overall, Mexican-origin workers are the lowest-paid group, with average hourly earnings that trail even those of blacks. In 1979, Mexican Americans earned 23 percent less than whites and 2 percent less then blacks; by 1989, these same wage differentials had widened to deficits of 31 percent relative to whites and 8 percent relative to blacks. For Mexican-origin workers, average wages are pulled down by the presence of large numbers of immigrants with very low levels of education and earnings.

The economic outlook is substantially better for U.S.-born Mexican Americans. In fact, after immigrants are excluded from calculations, Mexican Americans now earn more than blacks. Among third-generation workers in 1979, for example, the average hourly earnings of $6.80 for Mexican Americans are 14 percent below those of whites and 8 percent above those of blacks. For third-generation workers in 1989, the data imply a Mexican-American wage disadvantage relative to whites of around 22 percent and an advantage relative to blacks of 3 percent. These comparisons highlight the importance of differentiating by nativity when analyzing labor market outcomes of Mexican-origin workers.

The data in Table 1 strongly suggest that low levels of human capital have much to do with the relatively low wages earned by Mexican-American men. Educational attainment and English proficiency are substantially higher for whites than for Mexican Americans, even among U.S.-born workers. In both 1979 and 1989, third-generation Mexican Americans average almost a year and a half less schooling than whites, and in 1989 they also trail blacks by more than a third of a year. Moreover, a significant fraction of U.S.-born Mexican Americans lack fluency in English, an obstacle not faced by whites or blacks. Finally, the relative youth of the Mexican-origin work force, particularly the third generation, also contributes to their low earnings.

Mexican-origin workers display marked wage growth between the first and second generations, a phenomenon that is undoubtedly related to the substantial intergenerational improvements in human capital that take place. In both years, the hourly earnings of Mexican Americans increase by more than 35 percent between the first two generations, and this is accompanied by dramatic progress across generations in educational attainment and English proficiency. The much more modest gains in schooling and English fluency that occur between the second and third generations do not appear to raise the earnings of Mexican Americans any further, but the relative youth of third-generation workers may be masking whatever wage growth exists. Regressions that control for labor market experience will resolve this issue; they are reported below.

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White men widened their wage advantage during the 1980s, especially relative to Mexican Americans. Among third-generation workers, the wage gap between Mexican Americans and whites grew by 8 percentage points (from 14 percent to 22 percent), whereas the black-white differential rose by 4 percentage points (from 20 percent to 24 percent). These changes partly reflect the fact that earnings inequality and the labor market returns to various dimensions of worker skill were increasing over this period (Murphy and Welch 1992; Juhn, Murphy, and Pierce 1993). As a result, relatively unskilled groups, such as Mexican Americans and blacks, that typically occupy places in the bottom half of the wage distribution fell further behind more skilled groups such as whites.[12]

More importantly, however, the typical Mexican-American and black worker slipped lower in the white wage distribution during the 1980s. Among third-generation men, in 1979 the median (or 50th percentile) Mexican-American worker earned about as much as workers occupying the 37th percentile of the white wage distribution. By 1989, the median Mexican American had slid to the 34th percentile of the white wage distribution. Over the same decade, the median black worker fell from the 31st percentile to the 29th percentile of the white wage distribution. Percentage wage differentials between the median white worker and whites in the 31st-37th percentiles rose only slightly between 1979 and 1989. Therefore, most of the decline in the relative wages of the median Mexican-American and black workers is attributable to minorities' losing ground *within* the white wage distribution, rather than to the increased inequality of the white distribution.

Finally, note that because the cost of living (as measured by the GNP price deflator) rose by 63 percent between November 1979 and November 1989, the nominal wages reported in Table 1 would have to grow by more than this percentage to indicate growth in real wages. Only first- and second-generation whites (with nominal wage growth of 72 percent and 66 percent, respectively) enjoyed such real-wage growth over the 1980s for the average worker. Though the 59 percent wage growth experienced by third-generation whites fell somewhat short of inflation, nominal wages still increased at a much higher rate for these workers than for Mexican-American or black workers. This fact is reflected in the widening of minority wage gaps during the decade.

Wage Regressions

Table 2 presents wage regressions, estimated by least squares, that successively add explanatory variables. The dependent variable is the natural logarithm of hourly earnings, so the estimated coefficients represent approximate percentage effects. These regressions allow intercepts to differ across ethnicity/generation groups (with third-generation whites as the reference group), but other coefficients

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[12] Bound and Freeman (1992) provide a detailed analysis of the relative wage erosion suffered by blacks.

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Table 2
Hourly Earnings Regressions, 1979 and 1989 CPS

Regressor	1979					1989				
	(1)	(2)	(3)	(4)	(5)	(1)	(2)	(3)	(4)	(5)
Ethnicity/Generation:										
First-Generation Whites	.082	.045	-.013	.001	.038	.153	.065	.010	-.008	.042
	(.020)	(.020)	(.018)	(.017)	(.020)	(.023)	(.023)	(.021)	(.019)	(.021)
Second-Generation Whites	.125	.104	.044	.011	.014	.158	.088	.059	.013	.020
	(.011)	(.011)	(.010)	(.010)	(.010)	(.015)	(.015)	(.013)	(.012)	(.012)
Third-Generation Whites (reference group)										
First-Generation Mexicans	-.436	-.535	-.604	-.243	-.145	-.488	-.596	-.607	-.187	-.061
	(.029)	(.029)	(.027)	(.026)	(.037)	(.026)	(.026)	(.024)	(.023)	(.034)
Second-Generation Mexicans	-.117	-.176	-.195	-.066	-.027	-.211	-.268	-.219	-.077	-.018
	(.035)	(.034)	(.032)	(.026)	(.032)	(.039)	(.039)	(.035)	(.032)	(.035)
Third-Generation Mexicans	-.152	-.199	-.176	-.068	-.040	-.249	-.294	-.250	-.110	-.070
	(.027)	(.027)	(.025)	(.023)	(.025)	(.029)	(.029)	(.026)	(.024)	(.026)
Third-Generation Blacks	-.225	-.211	-.225	-.157	-.158	-.272	-.258	-.260	-.190	-.192
	(.012)	(.012)	(.011)	(.010)	(.010)	(.013)	(.013)	(.012)	(.011)	(.011)
Experience			.048	.043	.043			.058	.050	.050
			(.0008)	(.0008)	(.0008)			(.0009)	(.0009)	(.0009)
Experience²/100			-.094	-.072	-.072			-.111	-.080	-.080
			(.0019)	(.0018)	(.0018)			(.0022)	(.0021)	(.0021)
Education				.057	.056				.077	.077
				(.0010)	(.0011)				(.0012)	(.0012)
English Language Proficiency:										
Speaks Only English (reference group)										
Speaks English Very Well					-.041					-.076
					(.016)					(.017)
Speaks English Well					-.061					-.088
					(.030)					(.032)
Speaks English Not Well					-.098					-.172
					(.037)					(.010)
Speaks English Not at All					-.191					-.185
					(.054)					(.062)
Geographic Controls	No	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes
R²	.034	.079	.211	.296	.297	.044	.101	.259	.375	.376

Note: Dependent variable is the natural logarithm of hourly earnings, where hourly earnings are computed as the ratio of usual weekly earnings to usual weekly hours of work. Standard errors are in parentheses. Data are from the November 1979 and November 1989 CPS tapes. The sample includes male wage and salary workers aged 18-61 for whom earnings data are available. The sample size is 24,318 in 1979 and 23,406 in 1989. All regressions include dummy variables identifying the month in which the earnings data were collected (November, December, January, or February). The geographic controls entered in specifications (2) through (5) include indicators for metropolitan status (central city, elsewhere in an MSA, not in an MSA, and metropolitan status not identified), indicators for the nine Census divisions, and indicators for the states of California and Texas.

are restricted to be the same for all groups. In the first regression specification (column 1 for each year), the only additional variables are dummies identifying the month in which the earnings data were collected (November, December, January, or February). The month dummies have almost no effect on the results, and so the first specification essentially reproduces average log wage differences across ethnicity/generation groups.

The second regression specification in Table 2 adds a vector of geographic variables in order to control for regional variation in the cost-of-living and labor market conditions. These geographic controls include indicators for metropolitan status (central city, elsewhere in an MSA, not in an MSA, and metropolitan status not identified), indicators for the nine Census divisions, and indicators for the states of California and Texas. Separate dummies for California and Texas are necessary because the Mexican-American population is heavily concentrated in these states. Tabulations reveal that in my sample, over two-thirds of U.S.-born Mexicans and an even larger share of Mexican immigrants reside in these two states.

Because Mexican-origin workers tend to live in high-wage areas, controlling for geographic location amplifies wage differentials between Mexicans and third-generation whites. At the same time, including the geographic variables generally narrows wage differences among first-, second-, and third-generation whites.

The third regression specification adds potential experience and its square as independent variables. These regressions account for intergroup variation in both the geographic and age distributions of the work force, and therefore the ethnicity/generation coefficients from this specification provide useful "baseline" estimates of wage differences across groups. Conceptually, such estimates represent wage differentials between workers of the same age who live in the same place.

For whites, the results of the third specification indicate that average hourly earnings are quite similar across generations. The small wage advantage observed for the second generation relative to the third generation (4 percent in 1979 and 6 percent in 1989) closely resembles what Chiswick (1977b) and Carliner (1980) found in 1970 Census data. Note that the much larger wage differential favoring second-generation whites in the first specification (13 percent in 1979 and 16 percent in 1989) arises primarily because these workers are considerably older (see Table 1) and tend to live in high-wage regions. For the same reasons, the wage advantage of first-generation over third-generation whites disappears as we move from the first to the third specifications in Table 2.

For Mexican Americans and blacks, the third specification reveals sizable hourly earnings deficits relative to whites. In 1979, Mexican immigrants earned 60 percent less than third-generation

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whites, but the corresponding wage gaps for U.S.-born Mexicans and blacks are much smaller, on the order of 20 percent. After the effects of geographic location and experience are accounted for, minority wage differentials widened only slightly between 1979 and 1989, with the notable exception of third-generation Mexican Americans, for whom the wage disadvantage increased by 40 percent (from 18 percent to 25 percent) over the decade.

The fourth regression specification adds education as an explanatory variable, and this produces markedly smaller hourly earnings differentials, especially for Mexican Americans. The wage gaps (relative to third-generation whites) of U.S.-born Mexican Americans are now only about half as large as those of blacks. Moreover, the wage gaps for Mexican Americans have become fairly modest in size: 7 percent in 1979 and 11 percent in 1989 for third-generation workers, with even narrower differentials for the second generation. Finally, notice that these CPS samples reproduce the steep climb in the return to education over the 1980s that has been documented in numerous studies (e.g., Murphy and Welch 1992). The regressions reported in the fourth column for both years imply that the earnings premium associated with an additional year of schooling rose by more than a third between 1979 and 1989, from 5.7 percent to 7.7 percent.

The fifth and final regression specification in Table 2 adds the vector of dummy variables indicating English language proficiency, with English monolinguals—presumably the most proficient group—as the reference category. These language variables show the expected pattern of more negative coefficients for dummies representing lower levels of proficiency in speaking English.[13] Wage penalties for English deficiencies stiffened over the 1980s, at least for those who speak some minimal amount of English. Relative to English monolinguals, speaking no English at all depressed wages by about 19 percent in both 1979 and 1989, but the penalty for speaking English poorly rose from 10 to 17 percent over the decade. This increase in the labor market reward for English proficiency may be yet another manifestation of the rising skill returns observed during the 1980s (Juhn, Murphy, and Pierce 1993).

Adding the English proficiency variables to the regressions further shrinks wage differentials between Mexican-origin and white men, particularly for first- and second-generation Mexican Americans. The cumulative effect of controlling for geographic location, experience, education, and English language proficiency is to almost eliminate wage differences between U.S.-born Mexican

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[13] The coefficients on the English proficiency dummies probably represent more than simply the value to U.S employers of having workers who can communicate in the dominant language. These coefficients may also capture discrimination against workers with foreign accents (Davila, Bohara, and Saenz 1993), an interpretation especially relevant to the wage differential between workers who speak only English and those bilinguals who speak English "very well." Among U.S-born workers, these coefficients may reflect cognitive ability or school quality, since those who attended U.S. schools and failed to acquire fluency in English are likely to have encountered unusual circumstances

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Americans and third-generation whites: only the 1989 wage gap of 7 percent for third-generation Mexican Americans remains statistically significant. Black-white wage gaps, however, are still large (16 percent in 1979 and 19 percent in 1989) and significant. Overall, the geographic and human capital variables added between the first and fifth specifications have reduced the Mexican-American–white wage differential for third-generation workers by over 70 percent in each year, whereas the corresponding black-white differential falls by less than 30 percent. A similar analysis suggests that observable variables generally account for an even larger portion of the wage gaps for first- and second-generation Mexican Americans than they do for third-generation Mexican Americans. Moreover, these patterns become still more prominent if we instead compare wage differentials between the third (or baseline) and fifth specifications.

Group-Specific Returns to Experience and Education

The regressions in Table 2 are informative and easy to interpret, but they are also quite restrictive in that they constrain the wage structure to be the same, except for intercept differences, across ethnicity and generation groups. Table 3 presents the results of estimating group-specific returns to experience and education. A single regression is estimated for each year that generalizes the fifth specification from Table 2 by allowing the experience and education coefficients to vary by ethnicity and generation.[14] To facilitate interpretation of the quadratic in experience, Table 3 also reports the implied cumulative returns to the first 10 and 20 years of experience.

From an economic perspective, intergenerational differences in the estimated returns make sense. For both whites and Mexican Americans, returns to experience and education are generally much higher for U.S. natives than for immigrants. These results are well known and usually interpreted as evidence that the human capital immigrants acquire in their home country—schooling, job training, and work experience—transfers imperfectly to the U.S. labor market (Chiswick 1978). The exceptions to this pattern occur for Mexican Americans in 1979, when the wage premiums associated with experience and education are very low for second-generation workers and immigrants display the steepest age-earnings profile. Among whites, the return to schooling is essentially the same for second- and third-generation workers, but the analogous comparison for Mexican Americans reveals that the third

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[14] The coefficients of the geographic and English proficiency variables are still constrained to be the same for all groups. The regional concentration of Mexican-origin workers and the fact that very few U.S.-born whites and blacks speak a language other than English make it impossible to estimate group-specific coefficients for these other variables with any precision. To save space, the estimated coefficients of the English proficiency dummies are not reported in Table 3. They display the same pattern as in Table 2, but the wage penalties associated with severe language deficiencies are now substantially larger. For example, the coefficients for speaking English poorly become -.198 in 1979 and -.294 in 1989, and the coefficients for not speaking English at all are -.309 in 1979 and -.371 in 1989.

Table 3

Hourly Earnings Regressions, with Group-Specific Returns to Experience and Education, 1979 and 1989 CPS

Regressor	Whites, by Generation			Mexicans, by Generation			Third-Generation Blacks
	First	Second	Third	First	Second	Third	
			1979				
Coefficients:							
Intercept	1.316	1.009	.918	.980	1.473	.910	.881
	(.089)	(.057)	(.023)	(.133)	(.151)	(.125)	(.054)
Experience	.034	.043	.045	.044	.032	.036	.029
	(.005)	(.003)	(.0009)	(.008)	(.008)	(.006)	(.003)
Experience²/100	-.050	-.074	-.077	-.071	-.053	-.051	-.043
	(.011)	(.006)	(.0021)	(.017)	(.018)	(.015)	(.006)
Education	.037	.055	.058	.039	.016	.060	.059
	(.005)	(.004)	(.0012)	(.008)	(.011)	(.009)	(.004)
Cumulative Return to Experience:							
Ten Years	.286	.353	.373	.368	.267	.311	.244
	(.040)	(.021)	(.007)	(.069)	(.061)	(.048)	(.021)
Twenty Years	.473	.558	.593	.593	.430	.519	.403
	(.060)	(.032)	(.010)	(.107)	(.092)	(.071)	(.032)
			1989				
Coefficients:							
Intercept	1.433	.856	.777	1.352	.973	.660	.680
	(.106)	(.074)	(.024)	(.116)	(.166)	(.146)	(.064)
Experience	.026	.045	.052	.031	.055	.052	.038
	(.006)	(.004)	(.0010)	(.007)	(.009)	(.007)	(.003)
Experience²/100	-.031	-.073	-.086	-.034	-.094	-.069	-.051
	(.013)	(.008)	(.0024)	(.014)	(.022)	(.019)	(.007)
Education	.052	.080	.079	.033	.061	.080	.079
	(.006)	(.005)	(.0013)	(.007)	(.013)	(.011)	(.005)
Cumulative Return to Experience:							
Ten Years	.231	.377	.433	.271	.455	.448	.329
	(.047)	(.028)	(.007)	(.053)	(.072)	(.055)	(.023)
Twenty Years	.400	.609	.693	.474	.722	.756	.556
	(.071)	(.041)	(.011)	(.083)	(.106)	(.079)	(.033)

Note: Dependent variable is the natural logarithm of hourly earnings, where hourly earnings are computed as the ratio of usual weekly earnings to usual weekly hours of work. Standard errors are in parentheses. Data are from the November 1979 and November 1989 CPS tapes. The sample includes male wage and salary workers aged 18-61 for whom earnings data are available. The sample size is 24,318 in 1979 and 23,606 in 1989. The coefficients reported above are from two regressions, one for 1979 and another for 1989, that allow the intercept and the returns to experience and education to vary by ethnicity and generation. The coefficients of all other variables in these regressions are constrained not to vary across ethnicity/generation groups. These other independent variables, the coefficients of which are not reported, include controls for CPS survey month, metropolitan status, geographic location, and English language proficiency. See Table 2 for a description of these other independent variables.

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generation earns a considerably higher return in both years (although the difference is not statistically significant in 1989). This finding points up the analytical value of data sources that distinguish between second- and third-generation Mexican Americans.

Table 3 also indicates that, among third-generation men, the wage structure is remarkably similar for whites and Mexican Americans, with virtually identical education coefficients and returns to experience that are moderately higher for whites in 1979 and slightly higher for Mexican Americans in 1989. Indeed, the 1979 data do not come close to rejecting the joint hypothesis that the wage structure (including the intercept) is the same for third-generation whites and Mexican Americans, and the1989 data do not reject joint equality of the experience and education coefficients but do reject when intercepts are considered as well. Although black men earn the same return to education as third-generation whites and Mexican Americans, they receive a much lower return to experience, and as a result the black wage structure is significantly different in both years from that of whites and Mexicans.

Decomposition of Wage Differentials

Well-known techniques exist for decomposing the wage differential between two groups of workers into portions attributable to differences in average characteristics of the groups and portions attributable to intergroup differences in labor market returns to these characteristics (Blinder 1973; Oaxaca 1973). Table 4 presents such decompositions of the white-Mexican American and white-black wage differentials for third-generation men. These decompositions are based on the regression results reported in Table 3. The first row of Table 4 displays the relevant average log wage differences for each year. The remaining rows break down the total differentials into components representing the impact of average differences in particular characteristics and the impact of differences in the estimated returns to these characteristics. [15]

The decompositions reveal striking differences between Mexican Americans and blacks in the portion of their respective hourly earnings deficits (relative to whites) that can be attributed to lower stocks of human capital. For third-generation Mexican Americans, more than three-quarters of the wage gap in each year is accounted for by observable characteristics, whereas the same characteristics explain less than a third of the white-black differential. Relatively low levels of educational attainment are an important factor depressing earnings for both Mexican Americans and blacks, but Mexican Americans

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[15] The wage decompositions reported in Table 4 use the white regression coefficients to weight the differences in average characteristics, but weighting instead by the minority coefficients produces very similar results. Because the regressions restrict the coefficients of the geographic and English proficiency variables to be the same across groups, these variables contribute only to the portion of wage differentials arising from differences in characteristics. In Table 4, the month dummies are grouped together with the geographic variables.

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	White-Mexican American		White-Black	
	1979	1989	1979	1989
Total Log Wage Differential	.152	.250	.225	.272
Percentage of Total Log Wage Differential Attributable to Differences in Average Characteristics:				
Experience	23%	21%	-11%	-1%
Education	55%	44%	38%	29%
English Language Proficiency	25%	20%	0%	0%
Geographic Location	-22%	-8%	4%	2%
Total Attributable to Differing Characteristics	81%	77%	31%	30%
Percentage of Total Log Wage Differential Attributable to Differences in Coefficients:				
Intercept	5%	47%	16%	36%
Experience	26%	-20%	56%	32%
Education	-13%	-4%	-4%	1%
Total Attributable to Differing Coefficients	18%	23%	68%	69%

Note: These decompositions use the regression estimates reported in Table 3.

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are also hurt by English language deficiencies. The other characteristic contributing to the low wages of Mexican-American workers—their youthfulness—is not by itself a cause for concern, because wage growth over their careers appears to be similar to that of whites. For blacks, however, slow wage growth over the life cycle is the single most important factor generating their relative wage disadvantage, and this is a cause for genuine concern.

Wage Differences Among White Ethnic Groups

The regressions reported in Tables 2 and 3 indicate that hourly earnings differences between third-generation Mexican American and white men shrink dramatically when we control for a few observable determinants of earnings. This contrasts sharply with the situation of blacks, for whom large wage gaps remain even after differences in human capital are accounted for. But without a meaningful standard of comparison, it is difficult to gauge precisely the size and importance of these wage differentials. In this subsection I use hourly earnings differences among white ethnic groups as a relevant metric for assessing the significance of minority wage gaps.

In November 1979 (but not 1989), the CPS included open-ended ancestry questions similar to those asked in the 1980 and 1990 censuses.[16] Table 5 reports the coefficients of selected ethnicity dummy variables from log wage regressions for third-generation men in the 1979 CPS sample. Mexican Americans and blacks are identified as before from information on race and Spanish origin, with the ancestry data used to define ethnicity only for whites.[17] Not reported but included in the regressions are dummy variables representing whites from less populous ethnic groups, whites whose multiple ancestry responses were coded by the Census Bureau into combination ancestry groups, and whites with missing ancestry data.

In terms of control variables, the five columns of Table 5 correspond to the five regression specifications used in Table 2. The reported ethnic coefficients represent hourly earnings differences relative to whites of English ancestry. Results from the first three regressions presented in Table 5 indicate that, among third-generation male workers, Mexican Americans and blacks earn substantially less than any of the white ethnic groups, even after differences in geographic location and age are accounted for. However, adjusting for educational attainment (column 4) reduces the wage gap much more for Mexican Americans than for blacks, and adding controls for English proficiency (column 5) essentially eliminates wage differences between third-generation Mexican Americans and all but the

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[16] See Neidert and Farley (1985) and Lieberson and Waters (1988, pp. 19-21) for detailed discussions of the 1979 CPS ancestry data.

[17] Whites who report multiple ancestries are classified by their first response.

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Table 5
Hourly Earnings Regressions for Third-Generation Men, 1979 CPS

Regressor	(1)	(2)	(3)	(4)	(5)
Mexican American	-.181	-.233	-.196	-.064	-.018
	(.028)	(.028)	(.026)	(.025)	(.028)
Black	-.254	-.243	-.244	-.149	-.149
	(.014)	(.015)	(.013)	(.013)	(.013)
White Ethnic Groups:					
Canadian	-.074	-.063	-.006	.040	.044
	(.051)	(.050)	(.046)	(.043)	(.043)
Czech	.034	.016	.077	.061	.064
	(.047)	(.046)	(.043)	(.041)	(.041)
Danish	-.037	-.062	-.039	-.034	-.034
	(.043)	(.042)	(.039)	(.037)	(.037)
Dutch	-.040	-.051	-.043	-.016	-.017
	(.025)	(.025)	(.023)	(.022)	(.022)
English (reference group)					
French	-.062	-.029	-.032	.004	.007
	(.019)	(.019)	(.017)	(.016)	(.016)
German	-.007	-.019	-.006	.011	.011
	(.012)	(.012)	(.011)	(.011)	(.010)
Hungarian	.000	-.027	.022	.040	.040
	(.055)	(.054)	(.050)	(.047)	(.047)
Irish	-.031	-.028	-.019	.007	.007
	(.014)	(.014)	(.012)	(.012)	(.012)
Italian	-.063	-.073	-.010	.022	.025
	(.021)	(.021)	(.019)	(.018)	(.018)
Norwegian	-.026	-.027	-.009	.011	.011
	(.027)	(.027)	(.025)	(.023)	(.023)
Polish	.018	-.010	.032	.051	.053
	(.023)	(.023)	(.021)	(.020)	(.020)
Russian	.103	.061	.139	.088	.089
	(.036)	(.035)	(.033)	(.031)	(.031)
Scottish	.047	.037	.032	.006	.006
	(.019)	(.018)	(.017)	(.016)	(.016)
Swedish	-.023	-.038	-.024	-.022	-.021
	(.027)	(.027)	(.025)	(.023)	(.023)
Swiss	-.071	-.083	-.037	-.050	-.050
	(.054)	(.053)	(.049)	(.046)	(.046)
Welsh	.096	.063	.057	.041	.041
	(.036)	(.036)	(.033)	(.031)	(.031)

(continued next page)

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Table 5 (cont'd)

Additional Regressors	CPS Survey Month Dummies	Add to Column (1) Regressors: Geographic Controls	Add to Column (2) Regressors: Quadratic in Experience	Add to Column (3) Regressors: Education	Add to Column (4) Regressors: English Proficiency Dummies
R^2	.029	.072	.211	.294	.294

Note: Dependent variable is the natural logarithm of hourly earnings, where hourly earnings are computed as the ratio of usual weekly earnings to usual weekly hours of work. Standard errors are in parentheses. Data are from the November 1979 CPS tape. The sample includes third-generation male wage and salary workers aged 18-61 for whom earnings data are available. The sample size is 20,950. Not reported above but included in the regressions are dummy variables representing whites from less populous ethnic groups, whites whose multiple ancestry responses were coded by the Census Bureau into combination ancestry groups, and whites with missing ancestry data. See Table 2 for a description of the "additional regressors" listed above.

Additional Regressors	CPS Survey Month Dummies	Add to Column (1) Regressors: Geographic Controls	Add to Column (2) Regressors: Quadratic in Experience	Add to Column (3) Regressors: Education	Add to Column (4) Regressors: English Proficiency Dummies

highest-paid white ancestry groups (Russians and Poles). In contrast, the sizable wage disadvantage suffered by blacks is largely unrelated to observable human capital measures. After adjustment for skill differences, the average wages of Mexican Americans lie near the middle of the rather tight distribution of mean wages across white ethnic groups, whereas the very low average earnings of blacks remain a conspicuous outlier.

ANALYSIS OF CENSUS DATA

In this section, I present an analysis of 1990 Census data that complements the analysis of CPS data reported in the preceding section. The Census 5 percent microdata files provide information on 1 out of every 20 people living in the United States on April 1, 1990. The primary advantage of Census data is that the huge sample sizes permit detailed analyses of geographic and demographic subgroups. In particular, I will confine attention to California and Texas, because these states are home to the vast majority of the Mexican-origin population in the United States. Within each state, much of the analysis will be performed separately for groups of workers defined according to age and education. Unlike the November 1979 and 1989 CPS, the 1990 Census provides no information on parents' birthplace, so it is impossible to distinguish the second generation from higher generations of U.S.-born workers.

The Sample

To concentrate on workers with a strong attachment to the labor force, I limit the sample to non-institutionalized men between the ages of 25 and 59 who worked during 1989, which is the year that Census income data pertain to. Because I wish to focus on the experiences of U.S.-born Mexican Americans, foreign-born individuals are excluded. As before, I restrict the analysis to three ethnic groups: non-Hispanic whites, non-Hispanic blacks, and persons of Mexican descent. Of primary interest are the California data, but for purposes of comparison I provide a parallel analysis of Texas workers.

I define annual earnings as the sum of wage and salary income and self-employment income for 1989, and annual hours of work are the product of weeks worked and usual weekly hours of work during 1989.[18] Hourly earnings are computed as the ratio of annual earnings to annual hours of work. Workers with computed hourly wages below $1.66 or above $332 are considered outliers and are excluded.[19] Only a tiny percentage of observations are excluded in this way, and retaining wage outliers in the

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[18] The Census income data are top-coded, and because self-employment income can be negative, these data are bottom-coded as well. I retain top- and bottom-coded observations in the sample, but excluding them has little effect on the results. Likewise, excluding observations with imputed income data produces similar results.

[19] These thresholds were chosen to be the same in real terms as thresholds of $1 and $200 in 1979, given the 66 percent rise in the price level between 1979 and 1989 (as measured by the GNP price deflator). I eventually intend to perform a comparable analysis of 1980 Census data.

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sample leads to very similar results.

Although the age range of the Census sample (25-59) is slightly more restrictive than that of the CPS sample analyzed above (18-61), in several other respects the Census sample is more inclusive. Unlike the CPS sample, the Census sample includes military personnel, non-institutionalized group quarters members, and the self-employed.[20] In addition, the Census sample includes individuals who held a job at any time during 1989, whereas CPS earnings data are available only for those employed during the survey week.

The final Census sample includes 213,479 men in California and 153,289 in Texas. Appendix Table A1 reports Census sample sizes by ethnicity, age, and education for California, and Table A2 provides the same information for Texas.

Ethnic Differences in Human Capital

Before analyzing the wage data, I first examine human capital variables strongly associated with wages. Table 6 reports the education distributions of white, Mexican- American, and black men in California and Texas.[21] The first row of the table indicates that, among white Californians of all ages (25-59) in the 1990 Census sample, 4.5 percent had completed less than 12 years of schooling, 22.4 percent finished exactly 12 years,[22] 36.7 percent had attended college of some kind but not completed a bachelor's degree, and 36.4 percent had earned at least a bachelor's degree. Because these education categories are mutually exclusive and exhaustive, the percentages sum to 100 (except, in some cases, because of rounding error). Other rows of the table report education distributions for five-year age cohorts within each ethnic group and state.

These data reveal the strikingly low education levels of U.S.-born Mexican-American men. Mexican Americans are heavily overrepresented among high school dropouts and significantly underrepresented among college graduates. In both California and Texas, Mexican Americans overall are more than three times as likely as whites to not finish 12 years of schooling, and are less than a third as likely as whites to obtain a bachelor's degree. Similarly large differences in educational attainment exist within narrow age groups. Despite the general tendency of schooling levels to rise for younger age groups (particularly among workers without college degrees), there is no indication that over time the

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[20] These differences in sample composition do not appear to be important. Excluding military personnel, group quarters members, and the self-employed from the Census sample produces only very minor changes in the results.

[21] The 1990 Census is the first decennial Census to provide sampling weights for microdata. These weights were used in all of the Census calculations and regressions reported here, but unweighted estimates are similar.

[22] In addition to high school graduates, the education category "12 years" includes people who completed 12 years of schooling but failed to earn a high school diploma, as well as people who obtained their high school degree by passing the Test of General Educational Development (G.E.D.).

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Table 6

Percentage Distribution of Educational Attainment, by Ethnicity and Age, 1990 Census

Ethnicity/ Age Group	California				Texas			
	Less than 12 Years	12 Years	Some College	Bachelor's Degree and Above	Less than 12 Years	12 Years	Some College	Bachelor's Degree and Above
Whites:								
All Ages	4.5	22.4	36.7	36.4	8.2	26.2	32.4	33.2
25-29	5.7	28.8	36.2	29.3	8.2	29.9	33.3	28.6
30-34	4.2	25.9	37.6	32.4	7.3	29.3	33.0	30.5
35-39	2.8	20.1	39.7	37.4	5.7	23.2	35.0	36.0
40-44	2.6	15.5	38.6	43.3	6.3	20.0	33.9	39.7
45-49	4.3	19.3	35.3	41.1	8.7	25.1	30.5	35.7
50-54	6.3	22.5	33.8	37.3	11.5	28.2	29.9	30.4
55-59	8.1	23.9	30.2	37.8	15.1	28.1	25.9	31.0
Mexican Americans:								
All Ages	17.7	36.1	34.5	11.7	30.2	33.2	25.8	10.8
25-29	16.6	41.4	32.4	9.6	22.4	39.8	29.2	8.7
30-34	13.7	38.8	37.0	10.5	23.6	38.8	27.3	10.4
35-39	12.6	33.8	39.3	14.3	24.5	34.2	29.0	12.3
40-44	14.2	31.9	38.4	15.4	31.0	27.7	27.1	14.3
45-49	22.2	31.3	33.7	12.8	43.9	24.6	20.2	11.3
50-54	28.6	33.0	27.6	10.8	48.1	24.6	16.9	10.4
55-59	38.3	30.0	22.8	8.9	56.5	21.3	15.3	6.9
Blacks:								
All Ages	6.5	30.3	43.5	19.7	14.2	39.3	32.2	14.4
25-29	5.1	36.6	43.9	14.4	9.2	45.0	34.4	11.4
30-34	3.4	30.6	46.6	19.4	9.1	41.0	35.6	14.4
35-39	4.1	27.2	48.4	20.3	10.9	36.6	34.1	18.5
40-44	5.5	25.7	43.7	25.0	13.1	35.4	33.7	17.8
45-49	8.9	28.4	39.2	23.5	18.3	40.8	27.6	13.3
50-54	11.4	30.3	39.8	18.5	28.3	37.1	24.1	10.6
55-59	17.7	29.4	32.2	20.8	35.4	29.6	22.9	12.1

Note: Data are from the 1990 Census 5 percent microdata files. The sample includes U.S.-born men aged 25-59 who worked during 1989. Not everyone in the educational category "12 years" has a high school diploma. Sampling weights are used in the calculations.

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education distribution of Mexican Americans has been converging with that of whites.

Comparisons with blacks are also very unfavorable for Mexican Americans: high school dropout rates for Mexicans that are more than double those of blacks. In contrast to the disturbingly high dropout rates that continue to plague Mexican- American youth, black dropout rates fell so rapidly over time that for the youngest age groups blacks now have lower dropout rates than whites in California and rates only slightly higher than whites in Texas. In addition, blacks are considerably more likely than Mexican Americans to earn college degrees, especially in California.

Table 6 also indicates that Californians are generally more educated than Texans. High school completion rates are much lower in Texas than in California, especially for minorities, with the end result that almost a third of Mexican-American workers in Texas have less than 12 years of schooling. At the same time, fewer Texans than Californians have bachelor's degrees, particularly among blacks.

Using a format similar to the table on educational attainment, Table 7 presents information on English language proficiency. The Census questions on this topic are identical to the CPS questions analyzed in the preceding section: persons indicating that they "speak a language other than English at home" are asked how well they speak English. In Table 7, persons who report that they speak English "well," "not well," or "not at all" are aggregated into a single category representing those who speak English "below very well."

As expected in a sample of U.S.-born men, few white and black workers report any difficulty speaking English. Over 95 percent of these workers are English monolinguals, and most bilinguals speak English "very well," leaving only about one percent of whites and blacks who speak English "below very well." The percentages vary little across five-year age cohorts for whites and blacks, so for these groups I report only the distributions for all ages combined.

Not surprisingly, English proficiency is much lower for Mexican-American men, and proficiency varies across age cohorts and states. In California, 10 percent of Mexican-American workers indicate that they speak English "below very well," with the remaining 90 percent about evenly split between those who speak only English and bilinguals who speak English "very well." Younger Mexican Americans in California speak English better than their older counterparts, as the incidence of English monolingualism falls with increasing age and the incidence of English deficiency rises with increasing age.

Though the patterns by age cohort are similar in both states, the level of English proficiency among Mexican Americans is much lower in Texas than in California. The incidence of English deficiency is 23 percent for Mexican Americans in Texas, versus 10 percent in California; and only

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Table 7
Percentage Distribution of English Language Proficiency, by Ethnicity and Age, 1990 Census

	California			Texas		
		Ability of Bilinguals to Speak English			Ability of Bilinguals to Speak English	
Ethnicity/ Age Group	Speak Only English	Very Well	Below Very Well	Speak Only English	Very Well	Below Very Well
Whites:						
All Ages	96.2	3.1	0.7	96.5	2.7	0.8
Blacks:						
All Ages	95.6	3.5	0.9	96.2	2.7	1.1
Mexican Americans:						
All Ages	46.6	43.2	10.2	14.6	62.0	23.4
25-29	53.9	37.1	9.0	21.7	59.5	18.8
30-34	54.3	37.0	8.7	17.1	63.1	19.8
35-39	49.8	41.4	8.7	13.1	65.5	21.4
40-44	45.4	43.7	10.9	11.4	63.8	24.8
45-49	37.1	51.7	11.2	8.0	62.1	29.9
50-54	26.3	59.9	13.9	9.1	59.6	31.3
55-59	20.2	62.6	17.2	7.8	55.2	37.0

Note   Data are from the 1990 Census 5 percent microdata files. The sample includes U S -born men aged 25-59 who worked during 1989   The category "below very well" includes those who speak English "well," "not well," or "not at all." Sampling weights are used in the calculations

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percent 15 percent of Mexican Americans in Texas are English monolinguals, versus 47 percent in California.

To provide some indication of differences in the kinds of jobs held by white, Mexican-American, and black workers, Table 8 presents occupation and industry distributions by ethnicity. For readability, occupation and industry are defined at a fairly broad level, with 14 major occupation categories and 15 major industry categories. The numbers in the table represent the percentage of workers in a given ethnic group and state who are employed in a particular sector. For example, the number in the fourth row and first column indicates that 12.6 percent of white Californians are employed in sales occupations. In each column, the occupation percentages sum to 100 percent and the industry percentages sum to 100 percent, except for rounding error.

Relative to whites, Mexican Americans and blacks are seriously underrepresented in managerial and professional occupations, which are the highest-paying occupation groups. In California, Mexican Americans appear in these occupations even less frequently than blacks; in Texas, Mexican Americans and blacks are about equally underrepresented in the highest-paying occupation groups. In both states, Mexican Americans and blacks are overrepresented in many of the lowest-paying occupations, such as "other services" and the least-skilled blue-collar occupations (operators, transportation workers, and laborers). U.S.-born Mexican-American male farmworkers, although overrepresented in farming relative to whites and blacks, nevertheless make up only about 4 percent of the total male Mexican-American workforce. This contrasts with the much higher percentage of Mexican immigrants are employed in agriculture (about 15 percent in the November 1989 CPS data).

The Duncan segregation index (Duncan and Duncan 1955) is a useful summary measure of the extent to which two distributions differ. In the current context, the Duncan index represents the percentage of white workers (or minority workers) who would have to change occupations in order to make the white and minority occupation distributions identical. The index can range between 0 and 100 percent, with higher values indicating larger differences between the two occupation distributions. In practice, the Duncan values obtained in a particular application depend upon how coarsely or finely occupations are defined, with broad occupation groups such as those used here producing lower values of the index.

For the California occupation distributions reported in Table 8, the Duncan indices are 27 for the Mexican-American–white comparison and 25 for the black-white comparison, which indicates that Mexican-American and black men experience similar levels of occupational segregation relative to whites. In Texas, however, occupational segregation is considerably lower for Mexican Americans than

Table 8

Percentage Distributions of Major Occupation and Major Industry, by Ethnicity, 1990 Census

Occupation or Industry	California			Texas		
	Whites	Mexican Americans	Blacks	Whites	Mexican Americans	Blacks
Major Occupation:						
Managerial	18.5	9.2	11.0	17.4	8.3	7.5
Professional	17.6	7.2	10.5	14.8	6.5	6.9
Technical	4.7	3.3	4.2	5.1	3.3	3.7
Sales	12.6	7.3	7.0	13.3	8.3	5.4
Administrative Support and Clerical	6.2	9.0	13.6	6.0	8.2	10.5
Private Household	0.0	0.0	0.1	0.0	0.0	0.1
Protective Service	3.0	3.6	5.7	2.8	3.4	3.7
Other Service Occupations	3.5	6.7	9.3	3.1	7.3	11.2
Farming, Forestry, and Fishing	1.9	4.1	1.3	2.4	4.2	2.3
Precision Production, Craft, and Repair	19.1	23.4	15.3	20.4	24.0	15.8
Operators, Assemblers, and Inspectors	3.7	8.7	5.5	5.0	8.6	9.4
Transportation Occupations	5.4	9.4	9.0	6.1	10.4	13.3
Laborers, Handlers, and Helpers	3.3	7.8	6.2	2.9	7.2	9.2
Military Occupations	0.6	0.3	1.4	0.6	0.3	1.0
Major Industry:						
Agriculture, Forestry, and Fisheries	2.2	4.4	1.1	2.7	4.2	1.9
Mining	0.6	0.5	0.3	4.0	2.7	1.3
Construction	12.2	13.4	6.8	11.0	12.6	7.9
Nondurable Goods Manufacturing	4.7	6.8	4.7	7.2	7.7	8.5
Durable Goods Manufacturing	14.2	15.0	11.6	12.1	9.2	11.3
Transportation, Communications, and Public Utilities	9.0	11.6	15.5	10.6	11.6	15.7
Wholesale Trade	5.7	5.6	3.6	6.7	6.0	5.1
Retail Trade	11.2	12.1	10.0	11.3	13.6	12.4
Finance, Insurance, and Real Estate	6.5	3.4	5.0	5.9	3.4	3.5
Business and Repair Services	6.3	5.8	7.4	6.3	5.8	6.5
Personal Services	1.4	1.6	1.9	1.2	1.7	2.1
Entertainment and Recreation Services	2.3	1.1	2.0	0.9	1.0	0.8
Professional and Related Services	15.5	10.4	15.4	13.2	11.4	13.2
Public Administration	5.8	6.6	9.3	5.1	8.1	5.7
Active Military Duty	2.4	1.3	5.4	1.9	1.2	4.0

Note: Data are from the 1990 Census 5 percent microdata files. The sample includes U.S.-born men aged 25-59 who worked during 1989. Sampling weights are used in the calculations

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for blacks (the Duncan indices are 25 and 32 respectively). Not surprisingly, the Mexican-American and black occupation distributions are more similar to each other than to the white distributions, with Mexican-American–black Duncan indices of 16 for California and 14 for Texas.

The industry distributions presented in the bottom half of Table 8 are generally more similar across ethnic groups than the occupation distributions just discussed. For Mexican-American–white comparisons, the Duncan indices are 11 for California and 10 for Texas, and the black-white indices are 15 for California and 11 for Texas. In fact, the minority industry distributions are more different from each other than from the white distributions (Mexican-American–black Duncan indices of 20 for California and 13 for Texas). Relative to whites, Mexican Americans are underrepresented (especially in California) in the two highest-paying industries, finance and professional services, whereas blacks are underrepresented in construction and overrepresented in transportation.

Wage Ratios

I now begin to analyze wage data from the 1990 Census. Table 9 presents minority-white wage ratios, by age and education. The entries in the table are ratios of the average hourly wage of Mexican Americans or blacks in a given age and education category to the average hourly wage of whites in the same age and education category. Therefore, a ratio of one represents wage parity between minorities and whites, and the extent to which the ratio falls short of one measures the percentage wage deficit suffered by minorities. In this table, a * indicates wage ratios that are not statistically different from one at the 5 percent level of significance, and a # indicates wage ratios based on fewer than 50 observations for Mexican Americans or blacks.

The columns labeled "all levels" report wage ratios that include workers of all education levels, whereas the remaining columns present wage ratios for two specific types of workers: those with a high school diploma and no further education,[23] and those with a bachelor's degree and no further education. These particular education categories were chosen because they cover a substantial fraction of the work force (40-50 percent, depending on the ethnic group and state) and at the same time represent relatively narrow and well-defined skill classifications.

Overall, the California wage ratios of .76 for Mexican Americans and .78 for blacks indicate that, on average, Mexican Americans earn 24 percent less and blacks 22 percent less than whites. The overall wage deficits are higher in Texas: 31 percent for Mexican Americans and 27 percent for blacks. Minority wage gaps are smaller within education categories, particularly for Mexican Americans. The

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[23] The education category "high school diploma" includes workers who obtained their high school degree by passing the G.E.D. exam, but it excludes workers who completed 12 years of schooling yet failed to earn a diploma.

Table 9

Minority–White Wage Ratios, by Age and Education, 1990 Census

	California			Texas		
		Education:			Education:	
Wage Ratio/Age Group	All Levels	High School Diploma	Bachelor's Degree	All Levels	High School Diploma	Bachelor's Degree
Mexican-American–White Wage Ratio:						
All Ages	.763	.887	.819	.688	.812	.755
25-29	.896	.983*	.896	.789	.835	.870
30-34	.820	.939	.842	.736	.859	.763
35-39	.801	.920	.889	.750	.917	.817
40-44	.771	.865	.898	.671	.814	.719
45-49	.740	.835	.824	.663	.812	.782
50-54	.725	.826	.728	.661	.898*	.719
55-59	.727	.925*	.846	.635	.819	.835*#
Black–White Wage Ratio:						
All Ages	.778	.820	.832	.733	.834	.771
25-29	.855	.820	.922	.834	.864	.910
30-34	.811	.815	.802	.778	.819	.869
35-39	.814	.851	.926*	.749	.868	.749
40-44	.775	.800	.856	.727	.956*	.733
45-49	.763	.831	.805	.725	.845	.755
50-54	.742	.837	.743	.681	.825	.690
55-59	.757	.884*	.771	.739	.808	.918*#

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Note: The entries in this table are ratios of the average hourly wage of Mexican Americans or blacks in a given age and education cell to the average hourly wage of whites in the same age and education cell. Data are from the 1990 Census 5 percent microdata files. The sample includes U.S.-born men aged 25-59 who worked during 1989. Sampling weights are used in the calculations.

* indicates a wage ratio that is not statistically different from one at the 5 percent level.

# indicates a wage ratio based on fewer than 50 observations for Mexican Americans or blacks.

largest reduction occurs for the Mexican-American–white wage gap in California among high school graduates; this deficit is only 11 percent, which is less than half of the corresponding wage gap for workers of all education levels. In this instance, controlling for education shrinks the Mexican-American–white wage gap by about 54 percent relative to the initial differential of 24 percent. Similar calculations indicate that the Mexican-American–white wage gap declines by 39 percent for Texas high school graduates and by about 25 percent for college graduates in both states. In every instance, controlling for education leads to a smaller percentage reduction in the black-white than the Mexican-American–white wage gap.

Within specific education categories, there is a tendency for minority wage gaps to widen with age, especially among college graduates. For example, Mexican-American–white wage ratios for Californians with a high school diploma steadily decrease from .98 for 25-29 year-old men to .83 for 50-54 year-old men, before they bounce back up to .93 for ages 55-59. This could mean that more recent cohorts of Mexican-American and black workers will enjoy greater economic opportunity over their lifetimes than older minority workers did, perhaps because labor market discrimination is decreasing and human capital investments are converging. Indeed, the education distributions reported in Table 6 reveal that black high school dropout rates have fallen rapidly so that among the youngest cohorts they are very similar to the rates for whites, and Table 7 suggests that young Mexican Americans speak English better than their elders. It is also possible, however, that minority wage gaps are smaller for younger workers because career wage growth is greater for whites. If this is the case, then Mexican-American and black youth may find that their wage gaps rise with age until they eventually resemble the wage deficits experienced by today's older minorities.

Table 10 explores how controlling for English proficiency affects Mexican-American–white wage ratios. The top half of the table presents the wage ratios obtained after excluding workers who do not speak English "very well." The bottom half of the table proceeds further along these lines by limiting the sample to workers who speak only English. Controlling for English language ability in this way generally increases Mexican-American–white wage ratios, particularly for less-educated workers, older workers, and Texans—groups that are more likely to have English deficiencies. For example, among Texas high school graduates aged 35-39, the Mexican-American–white wage ratio rises from .92 for all workers to .95 for those who speak English at least very well to .99 for those who speak only English.

Wage Regressions

Multiple regression provides a convenient way to systematically investigate the influence of

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Table 10

Mexican-American–White Wage Ratios, by Age, Education, and English Language Proficiency, 1990 Census

| | California | | | Texas | | |
| | | Education: | | | Education: | |
Sample/Age Group	All Levels	High School Diploma	Bachelor's Degree	All Levels	High School Diploma	Bachelor's Degree
Speaks English Very Well:						
All Ages	.770	.893	.819	.715	.821	.761
25-29	.906	.998*	.897	.797	.834	.871
30-34	.830	.942	.847	.760	.873	.766
35-39	.812	.931	.893	.785	.950*	.823
40-44	.784	.878	.891	.703	.812	.721
45-49	.747	.817	.833	.717	.834	.793
50-54	.729	.836	.715	.723	.928*	.736
55-59	.746	.937*	.842	.682	.754	.851*#
Speaks Only English:						
All Ages	.782	.908	.820	.752	.811	.792
25-29	.936	1.029*	.923*	.857	.882	.991*
30-34	.840	.945*	.844	.813	.892	.779
35-39	.834	.955*	.892	.837	.991*	.867*
40-44	.827	.877	.955*	.858	.869	.787#
45-49	.801	.893	.786	.894*	.744	.961*#
50-54	.800	.985*	.748#	.754	.777#	.778#
55-59	.786	1.017*	.780*#	.720	.762#	.963*#

Note: The entries in this table are ratios of the average hourly wage of Mexican Americans in a given age and education cell to the average hourly wage of whites in the same age and education cell. Data are from the 1990 Census 5 percent microdata files. The sample includes U.S.-born men aged 25-59 who worked during 1989. In the top panel of the table, the sample excludes bilinguals who do not speak English "very well." In the bottom panel, the sample is limited to English monolinguals. Sampling weights are used in the calculations.

* indicates a wage ratio that is not statistically different from one at the 5 percent level

# indicates a wage ratio based on fewer than 50 observations for Mexican Americans

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various factors on wage differentials between minority and white workers. Table 11 reports the results of wage regressions, estimated by ordinary least squares, that show how minority wage gaps change as control variables are added. The regressions in this table pool together men from all age groups (25-59). Like the CPS wage regressions reported earlier, the dependent variable is the natural logarithm of hourly earnings, so the estimated coefficients represent approximate percentage effects.

The only explanatory variables in the first specification (column 1 for each state) are dummy variables identifying Mexican Americans and blacks. In this specification, the estimated coefficients on the ethnic dummies represent raw wage differentials between minority and white men. In California, both Mexican-American and black workers earn 25 percent less on average than whites. The wage gaps are bigger in Texas: about 37 percent for Mexican Americans and 33 percent for blacks.[24]

The second specification controls for age by adding a set of dummy variables indicating the five-year age cohort to which each worker belongs. Because minorities are younger on average than whites, controlling for age slightly reduces the wage gaps for blacks in California and Mexican Americans and blacks in Texas. The wage gap for Mexican Americans in California falls by a larger amount, because of the relative youth of this group.

The third specification adds a set of dummy variables identifying six education categories: less than 9 years of schooling, 9-11 years of schooling, 12 years of schooling, some college, a bachelor's degree, and a postgraduate degree.[25] Controlling for education substantially reduces minority wage gaps, particularly for Mexican Americans. The contrast between Mexican Americans and blacks is especially dramatic in California, where adding the education dummies lowers the wage gap by 57 percent for Mexican Americans (from 21 to 9 percent) and by only 26 percent for blacks (from 23 to 17 percent).

The fourth specification in Table 11 controls for English language proficiency by adding a set of dummy variables identifying workers who speak only English and, among those who speak another language, indicating whether they speak English "very well" or not. Not surprisingly, this has no effect on black-white wage differentials, but it does lower the wage deficit of Mexican Americans—particularly in Texas, where English deficiencies are more common. In both California and Texas, the cumulative impact of controlling for age, education, and English proficiency is to shrink the Mexican-

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[24] These raw wage gaps differ somewhat from those implied by the wage ratios reported in Table 9. This occurs both because log wage gaps only approximate percentage wage differentials and also because the nonlinear transformation applied by the logarithmic function means that comparisons based on average log wages can differ from comparisons based on average wages.

[25] See footnote 22 regarding the education category "12 years." Using the complete set of 17 education categories available in the 1990 Census produces even smaller minority wage gaps than those reported here, but the general pattern of results is very similar.

Table 11
Hourly Earnings Regressions, 1990 Census

Regressor	California					Texas				
	(1)	(2)	(3)	(4)	(5)	(1)	(2)	(3)	(4)	(5)
Mexican American	-.251	-.208	-.089	-.055	-.036	-.365	-.336	-.174	-.100	-.084
	(.005)	(.005)	(.004)	(.005)	(.005)	(.005)	(.005)	(.005)	(.007)	(.007)
Black	-.251	-.233	-.171	-.170	-.112	-.329	-.307	-.207	-.207	-.140
	(.005)	(.005)	(.005)	(.005)	(.005)	(.006)	(.005)	(.005)	(.005)	(.005)
Control Variables:										
Age	No	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes
Education	No	No	Yes	Yes	Yes	No	No	Yes	Yes	Yes
English Proficiency	No	No	No	Yes	Yes	No	No	No	Yes	Yes
Occupation and Industry	No	No	No	No	Yes	No	No	No	No	Yes
R^2	.022	.094	.169	.169	.232	.051	.105	.207	.209	.271

Note. Dependent variable is the natural logarithm of hourly earnings. Standard errors are in parentheses. Data are from the 1990 Census 5 percent microdata files. The sample includes U.S.-born men aged 25-59 who worked during 1989. The sample size is 213,479 for California and 153,289 for Texas. The control variables entered successively in specifications (2) through (5) are sets of dummy variables identifying 7 five-year age cohorts, 6 education categories, 3 levels of proficiency in speaking English, and 14 major occupation and 15 major industry groups. Sampling weights are used in the regressions.

American–white wage differential to about a quarter of its initial size (from 25 to 6 percent in California and from 37 to 10 percent in Texas). The corresponding reduction in the black-white wage gap is much smaller, to about two-thirds of its initial size (from 25 to 17 percent in California and from 33 to 21 percent in Texas).

Finally, in order to determine how much of the remaining minority wage gaps are related to overrepresentation in low-paying employment sectors, the fifth specification adds dummy variables identifying the 14 occupation and 15 industry categories listed in Table 8. In both states, controlling for these broad occupation and industry groups generates sizable reductions in the black wage gap, but a more modest decline in the Mexican-American wage gap. Evidently, after crude measures of human capital such as age, education, and English proficiency are accounted for, the role that job segregation plays in explaining low minority wages is potentially much larger for blacks than for Mexican Americans.

Table 12 presents results from wage regressions estimated separately for each five-year age cohort. The regressions in the top half of the table correspond to specification 1 in Table 11, so these estimates represent raw wage differentials between minority and white men. The bottom half of Table 12 corresponds to specification 4 in Table 11, which controls for age, education, and English proficiency, but not for occupation and industry. In Table 12, the age controls are dummy variables identifying single years of age within each five-year age cohort.

With the human capital measures excluded from the regressions, wage gaps are generally smaller for younger minority workers, but this tendency disappears once the control variables are included. Within age groups, the pattern of results is very similar to what was found in the pooled regressions reported in Table 11: controlling for human capital leads to a much larger reduction in the wage gap for Mexican Americans than for blacks, and the remaining wage deficit not attributable to human capital is substantially smaller for Mexican Americans.

Decomposition of Wage Differentials

As another way of illustrating differences in the extent to which observable skill measures can explain wage gaps for Mexican-American and black workers, Table 13 presents wage decompositions for the 1990 Census data similar to those presented earlier for the CPS data. These decompositions are based on regressions similar to specification 4 in Table 11, but are estimated separately for each of the three ethnic groups. The first row of Table 13 shows the relevant average log wage differences. The remaining rows break down the total differentials into components representing the impact of ethnic differences in particular human capital attributes and the impact of ethnic differences in the estimated

Table 12
Age-Specific Hourly Earnings Regressions, 1990 Census

California

Specification/ Regressor	Age Group: 25-29	30-34	35-39	40-44	45-49	50-54	55-59
Excluding Control Variables:							
Mexican-American	-.135 (.009)	-.191 (.009)	-.192 (.011)	-.242 (.013)	-.273 (.015)	-.304 (.017)	-.300 (.020)
Black	-.178 (.010)	-.244 (.011)	-.231 (.012)	-.252 (.013)	-.245 (.016)	-.269 (.017)	-.251 (.021)
R^2	.013	.020	.016	.020	.020	.025	.020
Including Control Variables:							
Mexican-American	-.034 (.010)	-.068 (.010)	-.045 (.012)	-.050 (.014)	-.068 (.018)	-.092 (.022)	-.057 (.027)
Black	-.143 (.010)	-.204 (.011)	-.164 (.012)	-.169 (.013)	-.163 (.015)	-.181 (.016)	-.165 (.020)
R^2	.071	.098	.110	.118	.119	.122	.118
Sample Size	38,494	40,757	37,165	33,652	26,223	20,268	16,920

Texas

Specification/ Regressor	Age Group: 25-29	30-34	35-39	40-44	45-49	50-54	55-59
Excluding Control Variables:							
Mexican-American	-.251 (.009)	-.318 (.010)	-.305 (.011)	-.385 (.012)	-.405 (.015)	-.416 (.018)	-.454 (.020)
Black	-.234 (.011)	-.297 (.011)	-.312 (.013)	-.327 (.015)	-.328 (.017)	-.410 (.020)	-.337 (.024)
R^2	.038	.050	.043	.052	.048	.057	.048
Including Control Variables:							
Mexican-American	-.105 (.013)	-.130 (.015)	-.051 (.018)	-.083 (.020)	-.058 (.026)	-.164 (.030)	-.092 (.035)
Black	-.169 (.010)	-.222 (.011)	-.210 (.012)	-.197 (.014)	-.190 (.016)	-.271 (.019)	-.204 (.033)
R^2	.119	.165	.170	.183	.172	.164	.161
Sample Size	27,199	29,603	26,908	23,737	18,645	14,646	12,551

Note: Dependent variable is the natural logarithm of hourly earnings. Standard errors are in parentheses. Data are from the 1990 Census 5 percent microdata files. The sample includes U.S.-born men aged 25-59 who worked during 1989. For each subsample defined according to state and age group, two regressions were estimated. The top panel presents results from regressions that include only dummy variables that distinguish Mexican-American and black workers from whites, whereas the regressions reported in the bottom panel also include dummy variables identifying single years of age within each five-year age cohort, 6 education categories, and 3 levels of proficiency speaking English. Sampling weights are used in the regressions.

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Table 13

Decomposition of Log Wage Differences Among U.S.-Born Men, 1990 Census

	White-Mexican American		White-Black	
	California	Texas	California	Texas
Total Log Wage Differential	.251	.365	.251	.329
Percentage of Total Log Wage Differential Attributable to Differences in Average Characteristics:				
Age	16%	8%	6%	7%
Education	48%	44%	25%	30%
English Language Proficiency	12%	22%	0%	0%
Total Attributable to Differing Characteristics	76%	74%	31%	37%
Percentage of Total Log Wage Differential Attributable to Differences in Coefficients:				
Intercept	33%	12%	-32%	43%
Age	16%	10%	17%	15%
Education	-28%	3%	82%	5%
English Language Proficiency	4%	1%	0%	-1%
Total Attributable to Differing Coefficients	25%	26%	67%	62%

Note: These decompositions are based on regressions similar to specification (4) in Table 11, but estimated separately for each ethnic group (whites, Mexican Americans, and blacks).

returns to these characteristics.[26]

Once again, the wage structure is much more similar between whites and Mexican Americans than between either of these groups and blacks. In both California and Texas, three-quarters of the Mexican-American–white wage gap is attributable to the relatively low measured skills of Mexican-American workers. By contrast, only about a third of the black wage deficit can be explained in this way. For Mexican Americans, insufficient schooling is an especially important factor, by itself accounting for almost half of the wage gap. In California, these data suggest that Mexican Americans earn a higher return to education than whites, whereas the schooling payoff for blacks lags well behind the other two groups.

CONCLUSION

Using national Current Population Survey data from November 1979 and 1989 and 1990 Census data for California and Texas, this study has analyzed in detail the wage structure and relative earning power of U.S.-born Mexican-American men. The main empirical findings are as follows:

1. In November 1989, about 83 percent of Mexican-American men aged 25-61 held jobs, an employment rate squarely between the corresponding rates of 78 percent for blacks and 90 percent for non-Hispanic whites. Although over the 1980s the employment situation of Mexican Americans deteriorated somewhat relative to whites, even at the end of the decade employment differences between Mexican-American and white workers were smaller than the wage differences. Because of this finding and other research (Reimers 1984) indicating that the low hourly earnings of Mexican-origin household heads account for most of the income differential between white and Mexican families in the United States, I decided to focus this study on the wage determination process. Mexican-origin households are poor primarily because they earn low wages, not because they work less than other groups.

2. In overall comparisons with other groups, the average hourly earnings of Mexican-origin workers are depressed by the large proportion of very-low-paid immigrants, but even U.S.-born Mexican Americans are at a substantial wage disadvantage. In 1989, Mexican-American men in California averaged 25 percent lower wages than white men, about the same wage deficit suffered by blacks. Minority wage gaps were even larger in Texas.

3. Minority wage deficits widened during the 1980s, particularly for Mexican Americans. Among third- and higher-generation workers throughout the United States, the wage gap between

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[26] The wage decompositions in Table 13 use the white regression coefficients to weight the differences in average characteristics, but weighting instead by the minority coefficients produces very similar results.

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Mexican-American and white men grew by 8 percentage points (from 14 percent to 22 percent), whereas the black-white differential rose by 4 percentage points (from 20 to 24 percent). These changes partly reflect the fact that earnings inequality and the labor market returns to various dimensions of worker skill were increasing over this period, but most of the decline in the relative wages of Mexican-American and black workers is attributable to minorities' losing ground to low-skill, low-wage whites.

4. Mexican Americans possess disturbingly low levels of human capital. In 1989, U.S.-born Mexican-American men averaged a year and a half less education than whites and a third of a year less than blacks. Compared to whites in either California or Texas, Mexican Americans are more than three times as likely to not finish 12 years of schooling and less than a third as likely to obtain a bachelor's degree. Furthermore, even among men born and presumably educated in the United States, substantial numbers of Mexican Americans lack fluency in English. In California, 10 percent of Mexican-American workers report that they speak English less than very well, and the incidence of English deficiency is more than twice as high in Texas. English proficiency is higher for younger cohorts of Mexican-American workers, which suggests that language skills are improving over time. The data provide no indication, however, that the education distribution of Mexican Americans is converging with that of whites—a situation that stands in stark contrast to the more encouraging educational trend of blacks.

5. Mexican-American workers earn low wages primarily because they possess less human capital than whites, not because they receive lower rewards for their skills. Among U.S.-born Mexican-American men in both California and Texas, three-quarters of their wage deficit is attributable to their relative youth, their English language deficiencies, and especially their lower educational attainment. By itself, insufficient schooling accounts for almost half the wage gap. By contrast, these same human capital variables explain only about a third of the black-white wage deficit. Among third- and higher-generation men, the wage structure is remarkably similar for Mexican Americans and whites. Indeed, when adjusted for skill differences, the average earnings of Mexican Americans are virtually indistinguishable from those of non-Hispanic white ethnic groups such as Germans, Italians, Swedes, and the French, whereas the average earnings of blacks remain conspicuously low.

What are the implications of these findings for public policy? First, it should be emphasized that these results do *not* imply that laws prohibiting employment and wage discrimination against Mexican Americans are unnecessary or irrelevant. Instead, the results suggest only that, given the existing level of enforcement of labor market antidiscrimination laws, increased vigilance in this area is likely to benefit Mexican Americans less than blacks, because differences in the wage structure and returns to skill are currently much smaller between Mexican Americans and whites than between blacks and

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whites. It may well be that the prevailing legal framework plays an important role in maintaining the structural labor market similarities of Mexican Americans and whites.

My analysis indicates that the key to improving the economic status of Mexican Americans lies in raising education levels. That more and better schooling would help any group has the ring of a truism, especially in these times of increasing demand for skilled workers. But to a much larger extent than for blacks, educational improvements are crucial to the earnings progress of Mexican Americans, both because their schooling levels continue to lag behind those of virtually all other groups in American society, and because U.S.-born Mexicans Americans earn a relatively high return on educational investments, especially in California. Finding a way to somehow eliminate the educational disadvantage of Mexican Americans would go a long way toward bringing this group into the economic mainstream.

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APPENDIX

California Sample Sizes, by Ethnicity, Age, and Education, 1990 Census

				Education			
Ethnicity/Age Group	All Levels	Less than 9 Years	9-11 Years	12 Years	Some College	Bachelor's Degree	Post-Graduate
Whites:							
All Ages	178,592	1,356	6,708	40,105	65,316	40,400	24,707
25-29	30,346	154	1,589	8,849	11,053	7,104	1,597
30-34	33,477	140	1,274	8,737	12,557	7,471	3,298
35-39	31,325	132	752	6,303	12,411	7,297	4,430
40-44	28,918	127	623	4,463	11,132	7,260	5,313
45-49	22,713	188	780	4,377	7,988	4,863	4,517
50-54	17,273	262	831	3,908	5,790	3,354	3,128
55-59	14,540	353	859	3,468	4,385	3,051	2,424
Mexican Americans:							
All Ages	20,530	1,158	2,574	7,464	6,986	1,632	716
25-29	5,146	157	720	2,141	1,658	396	74
30-34	4,464	141	484	1,757	1,617	351	114
35-39	3,411	130	307	1,169	1,333	322	150
40-44	2,713	149	252	855	1,039	290	128
45-49	1,925	140	291	622	625	131	116
50-54	1,550	173	265	527	424	89	72
55-59	1,321	268	255	393	290	53	62
Blacks:							
All Ages	14,357	212	752	4,342	6,227	1,947	877
25-29	3,002	19	134	1,120	1,304	372	53
30-34	2,816	20	75	880	1,298	403	140
35-39	2,429	12	88	652	1,178	361	138
40-44	2,021	23	91	513	897	306	191
45-49	1,585	29	119	435	625	218	159
50-54	1,445	42	117	432	579	165	110
55-59	1,059	67	128	310	346	122	86

Note: Data are from the 1990 Census 5 percent microdata files. The sample includes U.S.-born men aged 25-59 who worked during 1989. Not everyone in the educational category "12 years" has a high school diploma.

Table A2
Texas Sample Sizes, by Ethnicity, Age, and Education, 1990 Census

				Education			
Ethnicity/Age Group	All Levels	Less than 9 Years	9-11 Years	12 Years	Some College	Bachelor's Degree	Post-Graduate
Whites:							
All Ages	117,927	2,713	7,724	32,253	37,713	25,094	12,430
25-29	19,470	240	1,472	6,201	6,380	4,287	890
30-34	22,079	261	1,454	6,725	7,240	4,649	1,750
35-39	20,684	275	1,002	5,089	7,193	4,729	2,396
40-44	18,648	355	916	3,915	6,295	4,497	2,670
45-49	15,051	413	990	3,899	4,574	3,014	2,161
50-54	11,774	492	936	3,447	3,447	2,065	1,387
55-59	10,221	677	954	2,977	2,584	1,853	1,176
Mexican Americans:							
All Ages	21,794	3,542	3,586	7,227	5,290	1,546	603
25-29	4,913	266	903	2,001	1,378	314	51
30-34	4,685	322	856	1,836	1,225	345	101
35-39	3,844	446	578	1,327	1,050	327	116
40-44	3,143	608	445	864	802	273	151
45-49	2,135	627	369	522	396	146	75
50-54	1,663	598	266	395	249	98	57
55-59	1,411	675	169	282	190	43	52
Blacks:							
All Ages	13,568	507	1,586	5,448	4,224	1,335	468
25-29	2,816	32	247	1,311	932	250	44
30-34	2,839	30	250	1,211	971	319	58
35-39	2,380	39	236	892	801	307	105
40-44	1,946	55	210	703	646	241	91
45-49	1,459	74	210	599	398	114	64
50-54	1,209	115	245	459	279	65	46
55-59	919	162	188	273	197	39	60

Note: Data are from the 1990 Census 5 percent microdata files. The sample includes U.S.-born men aged 25-59 who worked during 1989. Not everyone in the educational category "12 years" has a high school diploma.

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