

## 7. Probing the Income Gap

Chapter 6 showed that most differences between whites and both blacks and Hispanics have narrowed with respect to educational attainment and employment in high-status jobs. In contrast, the income differential (or gap) between white men and black men changed little, and the gap between whites and Hispanics widened. This growing income gap characterized not just immigrants but also Mexican Americans (the U.S.-born).

Why have these income gaps become wider? For many Californians and others who placed their faith in the struggle for improved education and fairer access to the better jobs, this finding is unexpected and discouraging. There is no simple answer to the question. However, in this chapter we search for the reasons behind this change by analyzing the income differentials in several ways.

Our first approach is to compare Southern California's 1959–1989 trend with that in the nation as a whole.<sup>1</sup> This comparison demonstrates that the trend has been somewhat different in Southern California. We then examine special factors that might have produced the distinctive trend of this region.

Subsequent analyses deal with Southern California by itself. We look at the possible role of self-employment and government employment as opposed to work in the private sector as an influence on income gaps. After that comes the largest analysis in the chapter. This is a comparison of the median incomes of workers in different ethnic groups after stratifying workers according to characteristics known to affect income. By matching individuals from different groups according to age cohort, educational attainment, U.S. birth, full-time employment, and general category of occupation, we were able to eliminate the influence of these factors. The size of the gap that remains is a better measure of the unexplained ethnic income differential. Next we study differen-

tials among workers employed in the same specific occupations. Lastly, we show how varying proportions of Mexican immigrants in selected low-skill occupations affect the income distributions of workers from other groups in those occupations.

Most of the analyses focus on income ratios between whites and blacks and between whites and Mexican Americans, but some sections also include Asians. The multiple approaches of this chapter result in a series of findings which together help explain the reasons behind the increased income gap in Southern California.

### **The National Income-Gap Trend**

The question of income differentials between whites and minorities has been of concern to scholars and other Americans for some time. Several studies have traced and analyzed the national trends of ratios and gaps, usually for the income gaps of blacks and Hispanics.<sup>2</sup>

The generally observed nationwide trends are as follows. General economic expansion and productivity growth from the 1940s into the 1970s lifted most people's incomes a great deal. This made possible a narrowing of income differences between whites and minorities. Incomes of Hispanics converged with white incomes until about 1970, and the black-white income gap was closing until about 1980. Thus, the period from 1959 was indeed one of progress in reducing income differentials between groups.

However, since about 1980 income gaps for the United States have widened. The net effect over the entire period since 1959 was still a narrowing of most gaps nationally (see the bottom

of Fig. 7.1). This is shown by the shorter length of most dark-toned bars representing 1989 compared to the 1959 light-toned bars in the U.S. portion of the graph.

The timing of the shift toward increased income differentials suggests that a major factor was the income polarization that came to characterize the United States after the mid-1970s.<sup>3</sup> Polarization means that the middle portion of the income distribution declined, resulting in increased proportions of both poor and rich. When ethnic groups are compared, whites are better represented in the upper part of most income distributions whereas blacks and Hispanics more commonly occupy the lower income levels. Thus, increasing white-minority income gaps after about 1980 are not surprising.

Economists attribute this polarization of the 1980s in large part to shifts in national economic policy designed to control inflation, to lower marginal tax rates, and to reduced government regulation of large corporations.<sup>4</sup> Some argue that important additional causes are foreign competition in manufacturing and the increase in imported manufactured goods. The shift of manufacturing operations from the United States to countries with lower labor costs resulted in a surplus of American workers, many of whom lacked even a high-school education. Until the mid-1970s, they had found good work.

Other economists explain wage reductions for less-skilled workers primarily in terms of technological change. Automation and other new technologies, more complex and often computer related, meant that people with advanced education in certain disciplines became more valuable. The opposite was true for the less educated. Although the educational attainment of Americans was rising rapidly, the demand for highly educated workers outpaced the expanding supply, and the demand for less-educated workers was much smaller than their declining numbers.<sup>5</sup> During the 1980s those men with five or more years of college increased their income by 12 percent, whereas those with only a high-school education averaged an income decline of 7 percent. Thus, educational attainment was a major factor in determining the direction of income change. On an average, the gainers tended to be whites and some Asian groups. Blacks and Hispanics were less apt to have jobs in high-growth occupations and industries.<sup>6</sup>

However, the increasing income gaps of the 1980s are probably not simply racial and ethnic fallout from income polarization. Rather, President Reagan's deemphasis on the federal government as protector of minority rights and his desire to let the free market deal with social problems made it possible for the market to become more discriminatory.<sup>7</sup> The growing income gap of the 1980s seemed to indicate that the federal government was needed to enforce laws against discrimination in employment and income. Altogether, the 1980s marked somewhat of a setback nationally in the slow progress toward income equality that had characterized earlier decades.

### **Differences in Gaps between Southern California and the United States**

In 1959 the gender gap in median income (between non-Hispanic white men and non-Hispanic white women) was the same in Southern California as it was in the United States. However, Southern California was distinctive in that the income gap between whites and both blacks and Hispanics was less in 1959 than it was in the country as a whole (Fig. 7.1).<sup>8</sup> In this region black and Mexican-origin women were earning incomes that approximated 90 percent of the income of non-Hispanic white women. In 1959 the gaps were wider among minority men than among women, but Southern California had smaller gaps than the U.S. average.<sup>9</sup>

The higher status of whites, blacks, and people of Mexican origin in Southern California in 1960 was due partly to the very low incomes of blacks in the South and of Mexican Americans in Texas. However, it is likely that the post-World War II period of job growth in Southern California was the primary factor behind the narrower gaps in this region. This is because the differences with the U.S. averages were pronounced and because the era was one of such rapid growth in Southern California.

Los Angeles was the only one of the ten largest central cities in the country in which total employment and manufacturing employment expanded during the 1947-1963 period.<sup>10</sup> The broad-based economic development of those years resulted in improved jobs for people with a wide range of skills. This presum-

ably led to narrower income gaps between whites and other groups. Minorities and whites eagerly migrated to Los Angeles during those years to take advantage of opportunities. Between 1940 and 1960 the Hispanic population tripled, and the black population grew to six times its 1940 size. Despite the exclusion of black workers from most Los Angeles-area unions and other

forms of discrimination, minorities were swept along in the wave of economic expansion.

By 1989, however, the relatively favorable income situation for blacks and Hispanics in Southern California had changed. The income convergence that characterized the national trend until the mid-1970s suggests that the gap may also have been narrowing in Southern California until that time. Thus, comparison of income gaps in Southern California in 1959 and 1989 should not imply a steady rate of change.

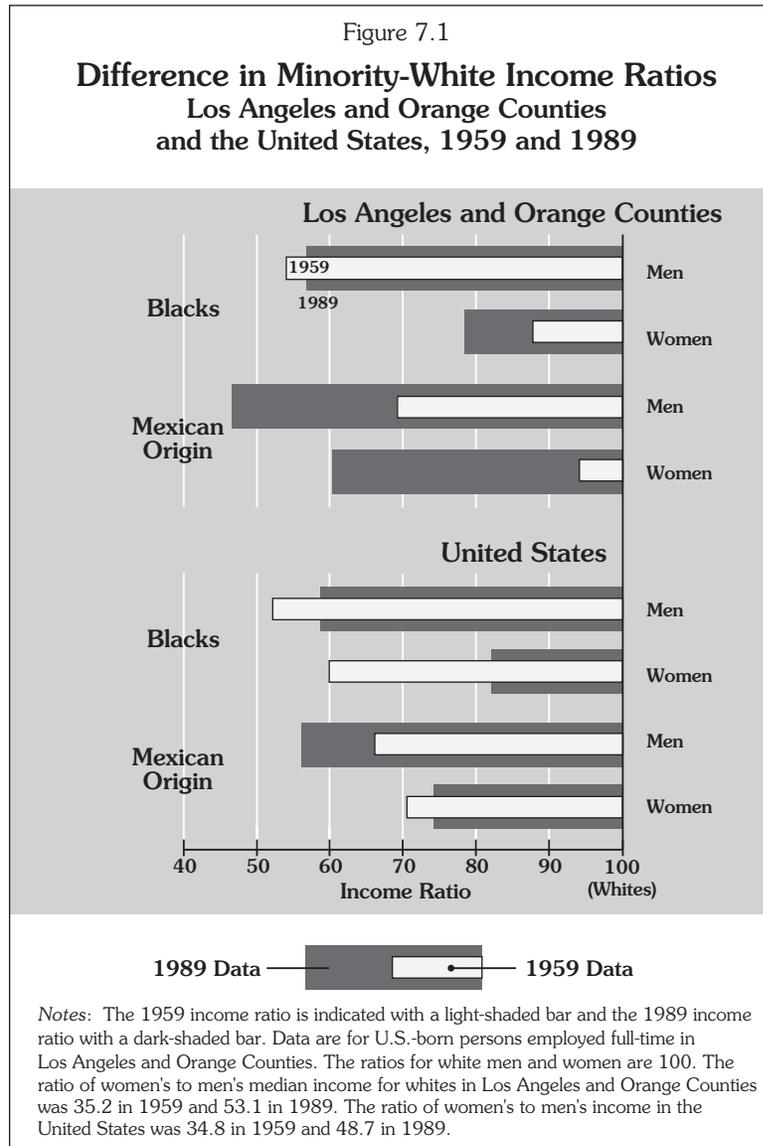
Regardless of the ups and downs of an income-gap trend line over the last thirty years, in 1989 Southern California had income gaps that were, if anything, wider than the U.S. average (Fig. 7.1). This is shown by the greater length of the bars (dark-toned) representing Southern California in Figure 7.1 compared to those representing the United States. The disparity between gaps for the United States and Southern California was greater between whites and people of Mexican origin than between whites and blacks.

Any explanation of the increasing white-Hispanic income gap in Southern California must assume that the factors responsible for the nationwide income polarization also played major roles in this region. However, the fact that the smaller gap experienced in Southern California in 1959 was replaced by a wider gap than that found nationwide tells us that regional characteristics must also be important.

### Regional Influences on the Wider Income Gaps

Three characteristics of Southern California appear to have played key roles in the unexpected widening of the income gap between Hispanics and whites and the immobility of the gap between whites and blacks. These regional influences are the following: changes in the employment structure, the immigration of large numbers of workers with few skills, and the increase in minority proportions.

**Changes in the employment structure.** Beginning in the late 1960s Southern California experienced major shifts in the types of employment available. Although this restructuring occurred in many places across America, its sum total may well



have been greater in this region. Depending on the ethnic makeup of the workforce in affected industries, the losses and gains in jobs may have widened white-minority income gaps.

Three major changes in employment structure have occurred since 1960. One was the growth of employment in the high-end service sector, particularly in finance, insurance, real estate, and business services. Another was the increase in employment in the low-wage service sector and in low-wage manufacturing. The last component of the restructuring was the decline of high-paying jobs for blue-collar workers in manufacturing.<sup>11</sup> Our examination of trends in these sectors indicates that only the first two were likely to have increased the income gaps in Southern California.

Southern California's employment growth in the high-level service sector benefited whites somewhat more than other groups. By 1990 white men and white women in Southern California were working as managers and professionals in higher proportions than were whites elsewhere across the country. The percentages of blacks, Japanese, Chinese, and Filipinos in upper-level, white-collar positions in Southern California were not very different from the U.S. average for each group. The net effect, however, was a wider white-minority occupational gap within Southern California than elsewhere.

It is also likely that the growth of low-wage jobs in the service sector and in manufacturing has played a role in the increasing white-Hispanic income gap. During the 1980s there was a large increase in Southern California's low-wage workforce, most of whom were recent immigrants who had few special skills but were eager to work. Large numbers of people, particularly Hispanic immigrants, were absorbed into the service sector as day laborers, housekeepers and nannies, kitchen helpers, car washers, lawn-maintenance workers, street vendors, and so forth. Apparel manufacturing, which has been on the decline nationally, grew in Southern California such that employment in the industry increased by 62 percent during the 1980s.<sup>12</sup> In that industry Hispanics, most of whom were in the United States illegally, made up an increasing proportion of workers (at least 69 percent in 1990). There is little doubt that garment factories expanded in Los Angeles because of the growing supply of low-skilled immi-

grants who were willing to work for wages that were low by California standards.

Although some scholars have thought that blacks and Hispanics bore a disproportionate share of layoffs in high-wage industries since 1960, the effect of that aspect of employment restructuring on white-minority income gaps was small. In representative industries (primary nonferrous metals, fabricated-metal production, electrical machinery, and motor vehicles) the percentage of black employees was virtually the same in 1990 as in 1960.<sup>13</sup> Also, of all men in the durable-goods workforce, Hispanics increased their representation between 1960 and 1990 from 11 percent to 36 percent, whereas blacks dropped only from 6 percent to 5 percent. It was primarily non-Hispanic whites whose departure from the durable-goods industries made room for Hispanic workers. In addition, in the aerospace industry the proportion of minorities among male workers increased between 1960, when only 4 percent were black, and 1990, when 9 percent were black and another 14 percent were Hispanics. Thus, loss of employment in high-wage manufacturing jobs was not a significant factor in white-minority income-gap changes.

**The immigration of workers with few skills.** If we ignore for the moment the foregoing three facets of employment restructuring, the evidence suggests that the immigration of large numbers of persons without advanced education or special skill has acted to lower the incomes of Hispanics compared with whites.

The arrival in an area of potential workers with few skills generally produces increases in the proportion of low-wage employment.<sup>14</sup> This labor surplus translates into lower wages. To illustrate, in the 1960s unskilled workers earned higher wages in Los Angeles County than in other metropolitan areas, but by the 1980s the average wage was 10 to 15 percent lower.<sup>15</sup> If whites were not competing for the same jobs as low-skilled immigrants, the arrival of large numbers of immigrants could be expected to widen the income gap between the two groups.

Patterns of migration within the United States provide indirect evidence of job competition between low-skilled immigrants and comparable U.S.-born workers, whether white, black, or

Latino. This is because migrants move primarily for employment and other economic reasons. Their migration decisions are based partly on the relative opportunities they perceive in different places. The arrival in an area of migrants willing to work at low wages seems to stimulate the outmigration of less-educated, often blue-collar, workers.<sup>16</sup> In contrast, those with a college education tend to move toward areas receiving immigrants.

This is exactly what occurred in Southern California during the last half of the 1980s.<sup>17</sup> If only people moving within the United States are included, between 1985 and 1990 there was a net outmigration from Southern California of U.S.-born Hispanics, blacks, and whites who were not college graduates. However, all three of these ethnic groups showed a net immigration among those who had graduated from college.

**Increases in minority proportions.** The increased income gaps are also consistent with the results of previous research that shows wider income gaps between whites and minorities when minority proportions are higher. Three major studies of income inequality in different metropolitan areas found this to be the case.<sup>18</sup> Although the particular mechanisms that are operating are not understood, higher proportions of Mexican-origin or black people in a metropolitan area are associated with larger income gaps between whites and those minorities. This means that minority groups have a tendency to do relatively better economically outside metropolitan areas in which they are concentrated.

Because the proportion of non-Hispanic whites in Southern California dropped from more than 82 percent to 46 percent during the past three decades, a larger income gap could be expected from this trend alone. The greatest change in minority proportions involved Hispanics, who constituted 9.3 percent of the Los Angeles-Orange County total population in 1960 but 34.7 percent in 1990. Because the United States did not experience anywhere near the proportionate increase in minorities that characterized Southern California, the income gap nationwide should not have increased as much as the gap did in Southern California. That was precisely what happened (Fig. 6.2).

The fact that the gap also increased substantially for U.S.-

born Hispanics is masked when data for Mexican Americans and Mexican immigrants are combined. However, when the U.S.-born are analyzed later in this chapter, the gap between them and whites also widened.

**Summary of regional factors.** We have identified the increases in service-sector employment at both the high end and the low end as likely factors behind growing white-minority gaps in Southern California. Of no less importance are the ample supply of low-skilled immigrants and increasing Hispanic proportions in the population. The specific ways in which these factors are intertwined causally are not known, and it may be a mistake to assign precedence to one or another. However, we do believe that developments in Mexico and Central America were sufficiently strong to explain most of the large immigration that the Los Angeles area experienced during the 1980s almost regardless of what was happening in Southern California. In other words, it seems likely that employment restructuring did not precede immigration and that the presence and prospects of low-wage immigrant labor encouraged job growth to take advantage of that labor supply.

At the same time, the net outmigration of less-educated whites and the net immigration of white college graduates may have raised the median income of whites, thereby increasing the income gaps. As we have already seen, the net outflow of working-class whites was stimulated in part by the arrival of the large number of immigrants.

For all these reasons, it appears to us that the primary regional factors in explaining Southern California's income-gap trends are the ample supply of low-skilled immigrant labor and the increasing proportion of minorities.

**Effect of low-skilled immigrants on Mexican Americans and blacks.** Incomes of Mexican Americans have been hurt more than have those of other groups as a result of the labor surplus provided by the large numbers of immigrants. We do not know exactly why this is the case. Certainly, the low educational attainment of Mexican Americans did not qualify most of them for the higher-level technical and professional positions that

were being created in the 1980s in Southern California. It is also possible that the large number of Hispanic immigrants made it easier for employers to discriminate against Mexican Americans. Employers may have assumed that the U.S.-born had no greater skills than immigrants.

The effect of the immigrants on the incomes of blacks is more complex. In most jobs there may have been little direct competition between blacks and immigrants. The differing occupational niches of blacks compared with people of Mexican origin (Tables 8.4) supports this notion. Moreover, black employment in the public sector has probably increased in response to the growing demand for government services generated by the arrival of so many needy immigrants.<sup>19</sup>

However, where blacks and immigrant Hispanics have overlapped in occupations, it is likely that competition has resulted in wage decline, subsequent avoidance of such jobs by blacks, and migration out of the area. The effect of wage competition is supported by a statistical analysis of wages in various Los Angeles industries as of 1980. The study shows that less-educated workers received lower pay in industries that had a higher proportion of Mexican-immigrant workers.<sup>20</sup> The fact that the same industries were not low-paying in other metropolitan areas is further evidence that job competition from Mexican immigrants is of special regional importance.

The findings of a recent economic study of regional trends in wage inequality in the United States between 1973 and 1991 echo ours.<sup>21</sup> The region that had the greatest increase in wage inequality between low-skilled and high-skilled U.S.-born workers was the West. In this region the wages of low-skilled, U.S.-born workers were reduced by about 10 percent. This was explained as resulting from a labor surplus due to the immigration of low-skilled workers.

### **Income Differentials by Class of Employment**

Workers can be in one of three classes of employment. Some are self-employed, others work for the government, but most are employed by private businesses or corporations. Because ethnic differences in proportions employed in the three classes are substantial (Table 8.3), analyzing how incomes vary by class of

employment may help explain income differentials between ethnic groups. We compared income levels among U.S.-born white, black, and Mexican American men aged 25 to 64 who were employed full time. We made separate calculations for three different combinations of educational and occupational status.

The first comparison involves men who did not graduate from college and are in occupations other than managerial or professional (Fig. 7.2). Regardless of type of employer, white men earn substantially higher income than do blacks or Mexican Americans, and blacks make the least. For men who are not college graduates, however, there is little difference in incomes among the three types of employment. The consistency of the ranking of white, black, and Hispanic incomes across all three types indicates that class of employment is not a major factor behind the income gaps already observed.

When the educational and occupational levels are raised, the ethnic differentials already observed still apply to the private sector (Fig. 7.2). However, for these college-graduate managers, two other patterns become evident. Among government workers the groups differ little in income. This may well indicate the success of government in reducing discrimination in its own workplaces. Also, self-employment is associated with much higher incomes for whites and blacks than is either private-sector employment or government work.

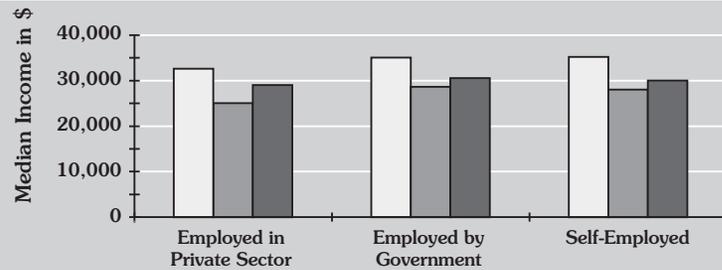
Lastly, we look at the median incomes of men who have completed a post-graduate degree program and are practicing professionals (Fig. 7.2). This group includes teachers, social workers, chemists, engineers, and judges, as well as almost all university professors, lawyers, physicians, dentists, and veterinarians. In this high-status group the income benefits of self-employment are dramatic. Although whites still have the highest income, self-employed black and Mexican American professionals average \$90,000, approximately twice the income of those who are employed by government.

Government workers show the smallest income differences among the three ethnic groups. The income advantages of self-employment increase greatly as status increases, suggesting substantial earning potential for blacks and Hispanics who complete the necessary education.

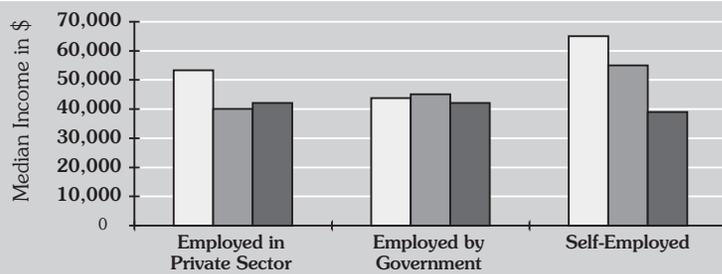
Figure 7.2

### Income by Class of Employment by Ethnicity for Males, 1989

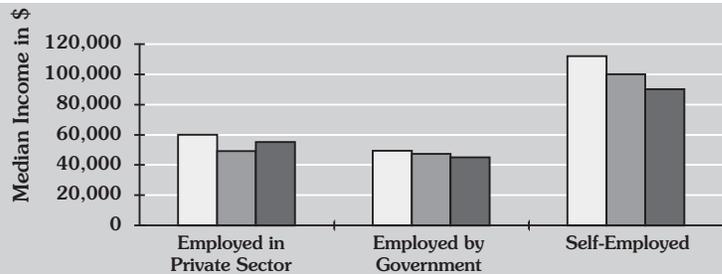
#### High-School Graduates in Other Than Managerial and Professional Occupations



#### College Graduates in Managerial Occupations



#### Post-Graduates in Professional Occupations



□ Non-Hispanic Whites  
 ■ Blacks  
 ■ Mexican Americans

Note: Data are for the Los Angeles CMSA.

## Income Gaps after Individuals Stratified by Human Capital

To what extent do income gaps result from differences in the characteristics of the various ethnic groups?

**Human capital.** Such factors as age, employment experience, educational attainment, and cultural skills are often referred to as human capital. This is because they are the resources built up by individuals who must compete in a labor market. The characteristics that people bring to their work are the supply in a supply-demand system that links workers with jobs in any economy. If such factors account for most of the gaps, then improving the human capital of minority workers would presumably eliminate most income differentials.

The problem with this approach is that it is impossible to measure precisely much of the human capital that is important in work success. The census provides the best data because its samples are large enough for such complex testing, but it provides no clues regarding some important characteristics of individuals. For instance, the census cannot measure the quality of education that individuals have received, as opposed to the level of attainment. Nor can it measure motivation, intelligence, or speech and personality characteristics that may be important in many occupations. All of these are human capital factors that may affect hiring and promotion decisions and thus income.

**Method of analysis.** Despite the imperfect nature of census data, in this section we compare median incomes of ethnic groups while controlling for some important individual characteristics. To control for key human capital characteristics, we stratified ethnic populations into similar subgroups.

We created a series of samples of Southern California workers using the 1990 PUMS. Only U.S.-born workers aged 25 through 64 who were employed year-round and full-time were included. We controlled for work experience by assigning individuals to one of four ten-year age categories, such as ages 25–34. Samples were also matched according to four educational-attainment categories and three occupational categories.<sup>22</sup> Then the

median income was calculated for each matched group. As in chapter 6, the median income for each group was compared with that for the equivalent white group by means of a ratio (Tables 7.1 and 7.2).

To eliminate the possibility that insufficient English language skills were playing a role in the income gap of Mexican Americans, we calculated an additional median-income ratio for those Mexican Americans who spoke English only or spoke it very well. Also, because it is difficult to judge how widely income ratios may vary within an ethnically diverse white population, we included comparable ratios for two important white-ancestry groups.

To distinguish the earlier income ratios in this chapter and chapter 6 from ratios calculated after individuals have been stratified for their human capital, we refer to the latter as “adjusted ratios.”

We present adjusted ratios separately for each of three occupational types. This is because ratios may vary according to the status of the occupations and the extent to which professional training is required. The category of managers, which also includes executives and administrators, is distinguished from the other high-status category—professionals. All other occupations constitute the last type.

**Results: managers and professionals.** The gap in white-minority incomes that remains after controlling for human capital factors is generally less among professionals than in other occupational types. This is presumably because a professional’s qualifications to practice are based more directly on completed formal education and licensing or certification than is the case in most other occupations. Among those with postgraduate degrees, such as physicians and lawyers, there are no longer any income gaps for minority women compared with white women. Also, the gaps virtually disappear among college-graduate Asians and among black women.

Nevertheless, Mexican American professionals earn only about 90 percent of the income of comparable whites, an indication that even among professionals factors other than age, educational attainment, and country of birth affect incomes. The

widest adjusted income gap among professionals is that for black men, who make only about 80 percent of the income of comparable whites. The size of this income gap after controlling for some human capital characteristics is surprisingly large.

Minority managers and executives experience wider income gaps than do professionals. For men, the gaps seem very wide, and gaps for Asians are comparable with those for blacks and Mexican Americans. Managers who are black earn only about 75 percent of the income of comparable white men, and for Mexican American men the adjusted ratio is about 80 percent. However, for female managers of all minority groups who are college graduates there is no longer an income differential with white women. Among Mexican Americans in high-status positions, differentiating those who speak English very well has virtually no effect on median income.

The fact that the adjusted median income of Russian-ancestry managers and professional men is 19 percent higher than that for comparable whites means that the minority-income gaps may well be explained by whatever differences lie behind the gap between Jews and other whites. The existence of such large gaps between white ethnic groups demonstrates that gaps of this size can result from factors other than racial discrimination. We suspect, but we cannot show, that the higher incomes of high-status Jews compared with most whites can be explained by such cultural factors as exceptional motivation, an especially high quality of human capital in terms of education, and effective mutual assistance.

Japanese men who are managers show an adjusted ratio of only about 81, indicating a much wider gap with whites than in the professions and other occupations. The dramatic inconsistency in the median-income gap for managerial occupations is probably evidence for the existence of a “glass ceiling,” a form of discrimination.<sup>23</sup> This refers to the complaint of many Asians that they are often passed over in favor of whites in promotions to better managerial and executive positions. There seems to be an invisible barrier above which they are not permitted to rise. Recall that all these Japanese managers were born in the United States and that many of them are the grandchildren of immigrants. For those reasons they should be perfectly fluent in English and thoroughly at ease with American culture.<sup>24</sup>

**Table 7.1 Adjusted Median-Income Ratios of U.S.-Born Men, 1989**

| Group   | Managerial         |                  |               | Professional     |               | Occupations other than Managerial and Professional |                    |                  |               |
|---|--------------------|------------------|---------------|------------------|---------------|--|--------------------|------------------|---------------|
|   | High Sch. Graduate | College Graduate | Post-Graduate | College Graduate | Post-Graduate | Not H.S. Graduate                                  | High Sch. Graduate | College Graduate | Post-Graduate |
| <b>Median income</b>  |                    |                  |               |                  |               |  |                    |                  |               |
| Non-Hispanic whites   | \$45,883           | \$59,562         | \$68,776      | \$48,653         | \$61,238      | \$29,488   | \$35,263           | \$47,410         | \$52,375      |
| <b>Ratio (percentage of non-Hispanic white median income)</b> |                    |                  |               |                  |               |  |                    |                  |               |
| Non-Hispanic whites   | 100.0              | 100.0            | 100.0         | 100.0            | 100.0         | 100.0  | 100.0              | 100.0            | 100.0         |
| English ancestry  | 99.8               | 97.5             | 107.1         | 102.7            | 97.2          | 106.5  | 103.5              | 102.6            | 109.8         |
| Russian ancestry  | 122.1              | 118.8            | 110.3         | 116.3            | 127.5         | -  | 110.0              | 127.9            | 132.8         |
| Blacks  | 73.5               | 76.6             | 65.1          | 80.9             | 80.4          | 70.6   | 77.3               | 83.8             | 72.7          |
| Mexican Americans   | 81.6               | 79.5             | 78.7          | 92.0             | 85.5          | 78.0   | 87.8               | 81.3             | 77.3          |
| With very good English  | 83.3               | 79.3             | 77.6          | 91.4             | 83.4          | 79.4   | 88.1               | 80.6             | 78.0          |
| Japanese  | 81.8               | 80.7             | 80.9          | 105.6            | 98.3          | 100.6  | 101.8              | 84.0             | 92.2          |
| Chinese   | -                  | 85.6             | -             | 103.5            | 96.6          | -  | 97.7               | 88.6             | 80.0          |
| Filipinos   | 95.5               | 60.4             | -             | -                | -             | -  | 89.6               | -                | -             |

**Table 7.2 Adjusted Median-Income Ratios of U.S.-Born Women, 1989**

| Group   | Managerial         |                  |               | Professional     |               | Occupations other than Managerial and Professional |                    |                  |               |
|---|--------------------|------------------|---------------|------------------|---------------|--|--------------------|------------------|---------------|
|   | High Sch. Graduate | College Graduate | Post-Graduate | College Graduate | Post-Graduate | Not H.S. Graduate                                  | High Sch. Graduate | College Graduate | Post-Graduate |
| <b>Median income</b>  |                    |                  |               |                  |               |  |                    |                  |               |
| Non-Hispanic whites   | \$29,231           | \$36,140         | \$47,302      | \$35,050         | \$40,240      | \$19,200   | \$23,326           | \$29,000         | \$34,685      |
| <b>Ratio (percentage of non-Hispanic white median income)</b> |                    |                  |               |                  |               |  |                    |                  |               |
| Non-Hispanic whites   | 100.0              | 100.0            | 100.0         | 100.0            | 100.0         | 100.0  | 100.0              | 100.0            | 100.0         |
| English ancestry  | 100.1              | 98.9             | 90.9          | 101.8            | 98.8          | 97.3   | 91.9               | 96.6             | 100.7         |
| Russian ancestry  | 105.0              | 103.1            | 98.1          | 110.7            | 111.4         | -  | 108.4              | 99.3             | 100.4         |
| Blacks  | 89.8               | 98.0             | 89.8          | 96.2             | 100.0         | 89.1   | 92.2               | 103.6            | 98.0          |
| Mexican Americans   | 88.4               | 99.9             | 94.8          | 84.7             | 98.5          | 81.2   | 89.7               | 91.2             | 92.1          |
| With very good English  | 87.5               | 100.7            | -             | 84.7             | 98.2          | 83.3   | 89.7               | 91.2             | 92.1          |
| Japanese  | 106.1              | 95.5             | 101.4         | 100.9            | 113.9         | 108.1  | 108.4              | 95.0             | -             |
| Chinese   | -                  | 98.0             | -             | 108.6            | 118.2         | -  | 110.9              | 112.0            | -             |
| Filipinos   | 101.8              | -                | -             | -                | -             | -  | 99.7               | -                | -             |

Source: U.S. Bureau of the Census (1992).

Notes: Insufficient sample sizes are indicated by dashes. Adjusted ratios are for full-time employed persons stratified by occupational type and educational attainment. Data are for Los Angeles and Orange Counties.

**Results: other occupations.** Adjusted ratios for blacks and Mexican Americans in all occupations other than managerial and professional (Tables 7.1 and 7.2) are also graphed (Fig. 7.3) to emphasize them because the numbers in these ethnic groups and occupations are so large.

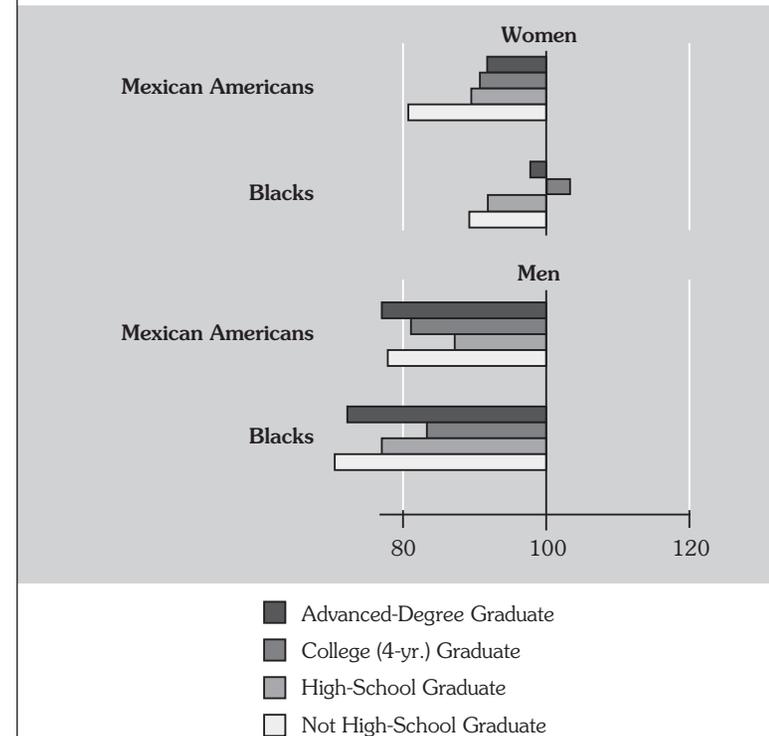
In occupations that are not managerial or professional, black men earn even less than three-quarters of the income of comparable white men. When this adjusted ratio is compared with the direct income ratio of 57 for all black men (Table 6.3), it is clear that stratifying by human capital factors eliminates less than half the income gap for black men. Mexican American men had an adjusted income ratio of about 82 or 83, in comparison with the unadjusted ratio of 61 (Table 6.3). This shows that educational level and other measured characteristics explain only a little more than half the income gap. Clearly, a major part of the explanation for men's income gaps must involve influences that we have been unable to measure.<sup>25</sup>

Blacks and Mexican Americans with less education experience wider gaps with whites than do the better-educated members of their groups (Fig. 7.3). This is an expected result of the greater competition from immigrants with little education. It is also consistent with the finding reported earlier in this chapter that less educated U.S.-born workers—especially whites—have left Los Angeles County and Southern California in the face of competition from poorly educated immigrants.

**Interpretation of the remaining income gaps.** One factor which we were not able to calculate was the greater improvement in educational quality among blacks than among whites since 1940. A major national study has shown that as of 1980 “there is little racial difference in the economic benefits of schooling for younger workers.”<sup>26</sup> Although our research describes a single gap experienced in 1989 by Southern Californians who range in age from 25 to 64, it may be true that the adjusted gap is reduced among younger people because of the improved quality of minority education.

In one of the few national studies to distinguish the U.S.-born within the larger Mexican-origin population, Mexican American men had an income ratio of 94 in 1979 after education, age, and full-time employment were controlled through regression

Figure 7.3  
Difference in  
Adjusted Minority-White Income Ratios  
for Other than Managerial and Professional Occupations  
by Level of Education, 1989



Notes: Data are for U.S.-born persons employed full-time in Los Angeles and Orange Counties. The ratios for non-Hispanic white men and women are 100. The ratios are taken from Tables 7.1 and 7.2. The median income for non-Hispanic white men averaged 65 percent of non-Hispanic white men.

techniques.<sup>27</sup> That result, consistent with other studies from the late 1970s and early 1980s, showed that the Mexican American income gap was mostly explainable at that time by that group's lower level of human capital compared to whites. In comparing that ratio with our results for 1989, some allowance must be made for the increasing national gap during the 1980s as a result of

income polarization. However, the adjusted 1979 national gap of 6 compared with the adjusted 1989 Southern California gap of approximately 17 suggests a much greater income gap in Southern California. This is consistent with our previous findings of a wider unadjusted income gap in this region (Fig. 7.1).

Among women in Southern California, the widest remaining income gap is among less-educated black and Mexican American women (Table 7.2). For black female college graduates and for all Asian women virtually no income gap with white women's incomes remains after full-time status, education, U.S. birth, and occupation have been taken into account.

These findings regarding women are important. They demonstrate that, on the average, any discrimination regarding hiring or promotion experienced by U.S.-born Asian women and college-educated black women is due to their sex, not their ethnic identity.

### **Gaps among men versus gaps among women.**

Although our focus is on comparisons of ethnic groups, the income differentials between men and women are striking. Even after eliminating part-time and seasonal workers, white women on the average earn only about 65 percent of white men's incomes. The same ratio for full-time workers has been found at the national level, where the gap is smaller for those aged 25 to 34 and for those with college education.<sup>28</sup>

In contrast, most minority men experience larger income gaps than do the women. For Japanese, managers have the largest income gaps. For blacks and Mexican Americans, the gaps are pervasive. They are a clear demonstration that age, educational attainment, and occupational status simply do not account for a large portion the income gaps experienced by blacks and Mexican Americans.<sup>29</sup>

### **Ethnic Income Differences within Occupations**

Specific occupations within the three broad categories of occupations can vary a great deal in pay. For example, lawyers, physicians, and electronics-assembly workers earn more money, respectively, than do nurses, teachers, and operators of sewing

machines in the garment industry. If whites, blacks, and people of Mexican origin tend to work at differing occupations which themselves vary systematically in rates of pay, this tendency could account for much or most of the remaining income gaps.

To investigate the role of this factor we measured the median incomes of workers from different ethnic groups in the same occupations. Our first analysis involves a simple comparison of income ratios for selected occupations of moderate or high status. The second examines six occupations requiring less skill to see whether the proportion of Mexican immigrant workers in an occupation is related to the presence of ethnic differences in income in the occupation.

**Income ratios in specific occupations.** Workers already in an occupation have presumably met any entry qualifications. We must assume that they are performing their work satisfactorily. For these reasons ethnic groups were not stratified in terms of educational attainment, and it was not necessary to analyze only those born in the United States.

However, there is such a range of occupations that the number employed in each is not large. Only a few of the more common occupations could be included, and we compared only three groups: non-Hispanic whites, blacks, and people of Mexican origin (Tables 7.3 and 7.4). To increase our sample size in this and the next analysis, workers were sampled from the entire five-county area of Southern California. We attempted to reduce the effect of higher incomes associated with more experienced (older) men and women by dividing the sample into two age groups: ages 25-44 and ages 45-64. Median incomes and ratios for the two age groups were then averaged.

The income gap is pervasive and substantial across the majority of occupations for both minority groups. Whites have higher incomes in nearly all the listed occupations, and most income ratios are not very different from the adjusted ratios found earlier. This means that the substantial gaps found in adjusted income ratios cannot be explained by ethnic differences in specific occupations chosen.

An important factor in the gaps is the older age of white workers. This means that on the average whites have from four to

**Table 7.3 Median-Income Ratios of Men in Selected Occupations, 1989**

| Occupation               | Non-Hispanic White Income | Ratio for Blacks | Ratio for Mexican origin |
|--------------------------|---------------------------|------------------|--------------------------|
| Financial manager        | \$59,453                  | 75.2             | 76.1                     |
| Marketing manager        | \$63,138                  | 51.9             | 72.6                     |
| Administrator, education | \$54,349                  | 80.7             | 117.7                    |
| Accountant, auditor      | \$47,142                  | 77.4             | 76.2                     |
| Engineer, aerospace      | \$52,600                  | 86.3             | 90.3                     |
| Engineer, electrical     | \$53,400                  | 92.5             | 89.9                     |
| Computer systems analyst | \$45,000                  | 91.1             | 87.4                     |
| Physician                | \$121,302                 | 78.9             | 69.3                     |
| Lawyer                   | \$94,000                  | 67.9             | 76.9                     |
| Computer programmer      | \$45,501                  | 84.4             | 83.9                     |
| Sales rep., insurance    | \$57,659                  | 68.1             | 59.4                     |
| Computer operator        | \$34,113                  | 95.7             | 85.0                     |
| Bookkeeper               | \$26,343                  | 94.2             | 71.3                     |
| Aircraft mechanic        | \$35,500                  | 85.6             | 82.5                     |
| Carpenter                | \$32,500                  | 87.1             | 87.4                     |
| Average ratio            |                           | 79.4             | 82.3                     |

*Source:* U.S. Bureau of the Census (1992).  
*Notes:* Each ethnic group comprises more than 700 men in each occupation. Data are for the Los Angeles CMSA.

ten more years of work experience and for this reason should expect somewhat higher incomes. Among the minorities, the average black worker is a few years older than the average worker of Mexican origin.

The white-minority income gaps are less in the more technical occupations. For men the income gaps are generally smaller among computer-systems analysts and aerospace and electrical engineers; minority women who are accountants or computer operators earn closest to the incomes of white women.

At the opposite extreme for men are marketing managers, accountants, insurance salesmen, lawyers, and physicians. In those occupations the gap between whites and others is wide.

**Table 7.4 Median-Income Ratios of Women in Selected Occupations, 1989**

| Occupation                    | Non-Hispanic White Income | Ratio for Blacks | Ratio for Mexican origin |
|-------------------------------|---------------------------|------------------|--------------------------|
| Financial manager             | \$59,453                  | 75.2             | 76.1                     |
| Financial manager             | \$38,800                  | 68.6             | 64.5                     |
| Manager, service organization | \$31,954                  | 81.7             | 88.7                     |
| Accountant, auditor           | \$29,400                  | 89.3             | 101.4                    |
| Registered nurse              | \$38,363                  | 88.6             | 83.3                     |
| Social worker                 | \$30,950                  | 86.0             | 73.8                     |
| Lawyer                        | \$63,525                  | 60.3             | 86.5 <sup>a</sup>        |
| Sales rep., insurance         | \$31,700                  | 68.5             | 70.3                     |
| Computer operator             | \$23,976                  | 104.3            | 91.5                     |
| Bookkeeper                    | \$23,000                  | 88.4             | 93.1                     |
| Clerk, inventory              | \$22,910                  | 99.4             | 82.1                     |
| Average ratio                 |                           | 83.6             | 83.2                     |

*Source:* U.S. Bureau of the Census (1992).  
*Notes:* Each ethnic group comprises more than 700 women in each occupation. Data are for the Los Angeles CMSA  
<sup>a</sup>Only women aged 25–44 are included because of insufficient sample size.

Minority women who are financial managers or insurance saleswomen also tend to earn much less than white women. The varied nature of these occupations makes generalization difficult, reinforcing the notion the income gaps are found in the highest-skilled occupations.

**The effect of Mexican immigrants on income.** Do income gaps vary in low-status occupations according to the supply of workers who are willing to work at relatively low wages? This is particularly relevant where the presence of a large number of Mexican immigrant workers has resulted in job competition among ethnic groups in certain low-status occupations.

To help answer this question we selected for comparison six occupations which require a relatively low level of education and little or no English-language ability. For this reason the human capital differences among individuals and ethnic groups in age, language ability, and education should not be factors in the income differences.

We examined the income distributions for different ethnic groups in the same six occupations by means of a statistical test (analysis of variance) that determined the probability that the several income distributions represented only random variations within a single population. The statistical significance of this probability was estimated by the F-test (Table 7.5). In addition, income distributions were graphed in order to show the large income range within each occupation and the substantial overlapping of incomes for different groups (Figs. 7.4 and 7.5).

In all six occupations immigrants from Mexico earned the least, but statistical results showed that occupations varied in the extent to which workers of different ethnic identities averaged dif-

ferent incomes. When occupations were compared as to the percentages of workers born in Mexico, those occupations that were less completely dominated by Mexican immigrants were the ones with significant income differences between groups (Table 7.5).

These results indicate that in occupations in which Mexican immigrants make up almost half or more of the workforce the wages of all the ethnic groups are essentially similar. Presumably this is because the incomes of all workers in that occupation are lower due to the high proportion of immigrant workers willing to work at low wages. This is consistent with our earlier findings and with another study, which reported lower wages in those industries in which Mexican immigrants dominated the workforce.<sup>30</sup>

The situations of female electrical-equipment assemblers and male janitors and assemblers are different. Workers in some ethnic groups are earning significantly more than are Mexican immigrants in those occupations, a situation that is sometimes called a dual labor market.<sup>31</sup> The statistic does not make clear precisely which ethnic groups, in addition to whites, have incomes signifi-

|                                   | Whites | Blacks | Asians <sup>a</sup> | Mexican Americans | Mexican Immigrants | Probability of No Real Income Difference between Groups |
|-----------------------------------|--------|--------|---------------------|-------------------|--------------------|---|
| <b>Women</b>                      |        |        |                     |                   |                    |   |
| Electronic equipment assembler    | 19.3   | 4.6    | 23.2                | 12.5              | 29.4               | .000 <sup>b</sup>                                       |
| Textile, apparel machine operator | 6.0    | 2.8    | 13.3                | 4.3               | 52.8               | .083  |
| <b>Men</b>                        |        |        |                     |                   |                    |   |
| Assembler                         | 22.3   | 6.0    | 8.2                 | 10.5              | 42.2               | .045 <sup>c</sup>                                       |
| Groundskeeper                     | 19.8   | 5.8    | 6.6                 | 9.5               | 50.8               | .170  |
| Janitor or cleaner                | 27.4   | 14.9   | 5.4                 | 10.3              | 28.9               | .000 <sup>b</sup>                                       |
| Machine operator                  | 22.0   | 5.2    | 7.1                 | 9.9               | 46.6               | .161  |

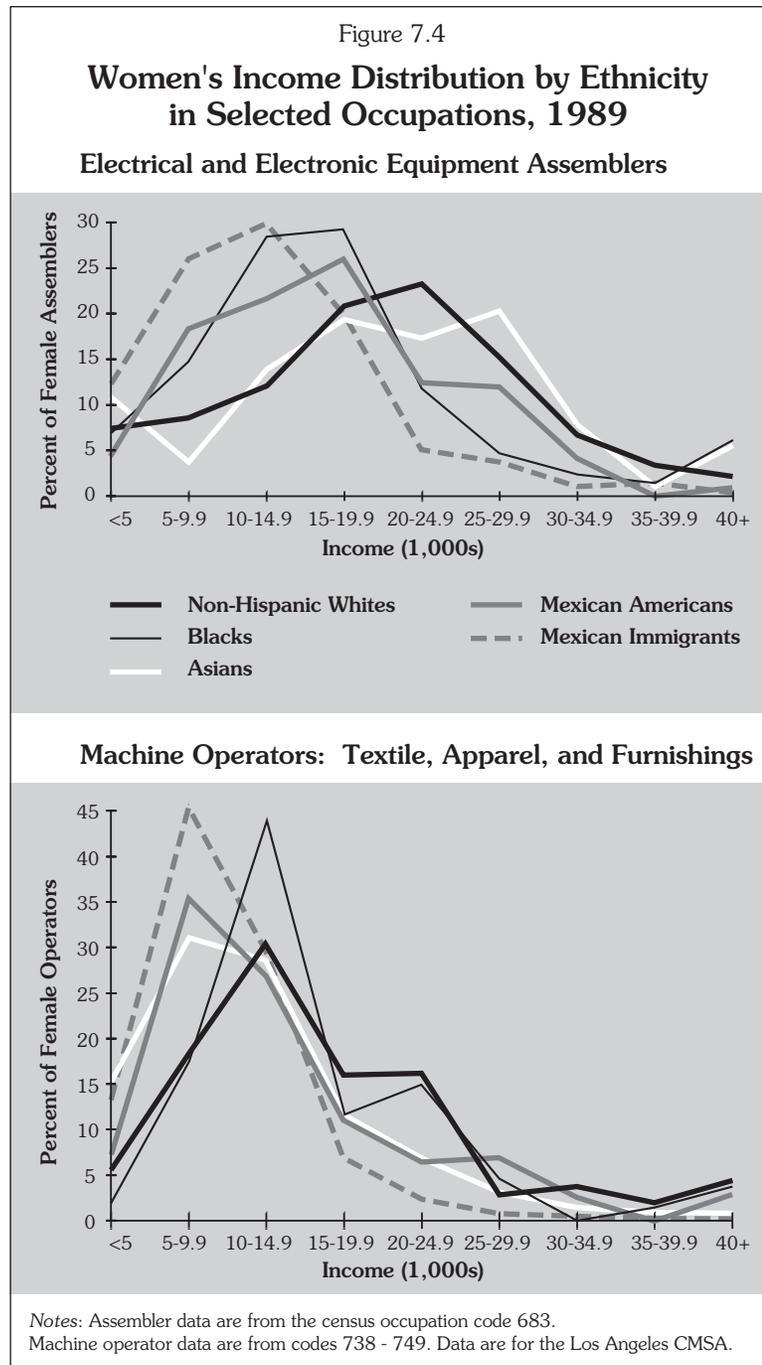
Source: U.S. Bureau of the Census (1992).

Notes: The census codes for the six occupations, in order of their listing, are 683, 738-749, 785, 486, 453, and 753-779. Percentage employed is of only these listed groups. Data are for the Los Angeles CMSA.

<sup>a</sup>Asians include Pacific Islanders.

<sup>b</sup>Differences between the groups are highly significant ( $p < .01$ ).

<sup>c</sup>Differences between the groups are also statistically significant ( $p < .05$ ).



cantly higher than those of Mexican immigrants—only that ethnic income differences are significant.

Ethnic differences in the incomes of janitorial and electrical assembly workers may also be due to the fact that certain jobs are protected from competition by lower-cost immigrant workers. For black and white janitors, working for the government probably provides this insulation against competition. Many white and other non-immigrant electrical-equipment assembly workers may earn higher wages because they are unionized or employed in the aerospace industry.

This result does not indicate that Mexican immigrants are being discriminated against, though that may be the case. It is very possible that the ethnic differences are only an indirect reflection of the real factors producing the income differences between groups. Geographical concentrations of labor in certain neighborhoods tend to keep wages down in those areas, so that the location of enclaves in relation to work may be affecting results.<sup>32</sup> Other factors include differences among employees in relative seniority and self-employment, differences in the size of companies, degree of unionization, and type of industry represented. Other occupations in Southern California, of course, may also show ethnic differences in income distributions which are statistically significant.<sup>33</sup>

## Summary and Interpretation

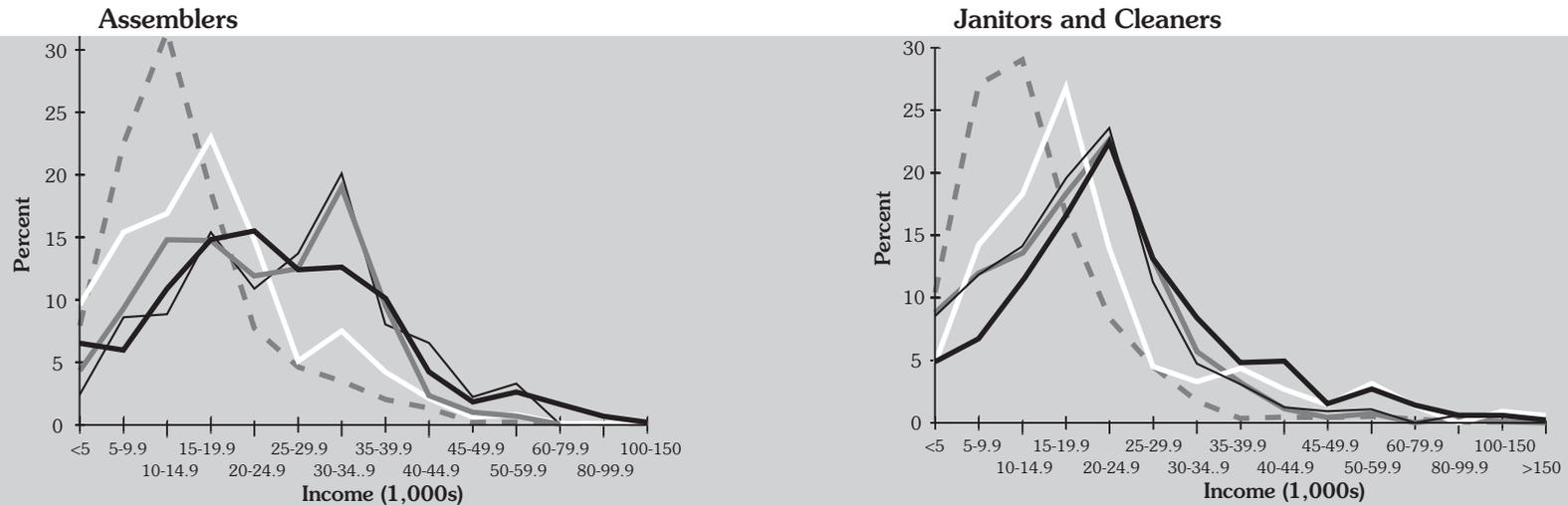
This chapter comprises several separate analyses, which lend themselves to a series of findings.

1. In 1959 the income gap between whites and both blacks and people of Mexican origin was less in Southern California than in the nation as a whole. In other words, those minorities in Southern California were earning higher incomes relative to whites than minorities were earning in the rest of the country. This was probably an effect of industrial expansion during the war years and of subsequent economic growth. Despite lack of political power on the part of blacks and Hispanics and blatant discrimination, the economic growth of that period was sufficient to raise wages for both whites and minorities.

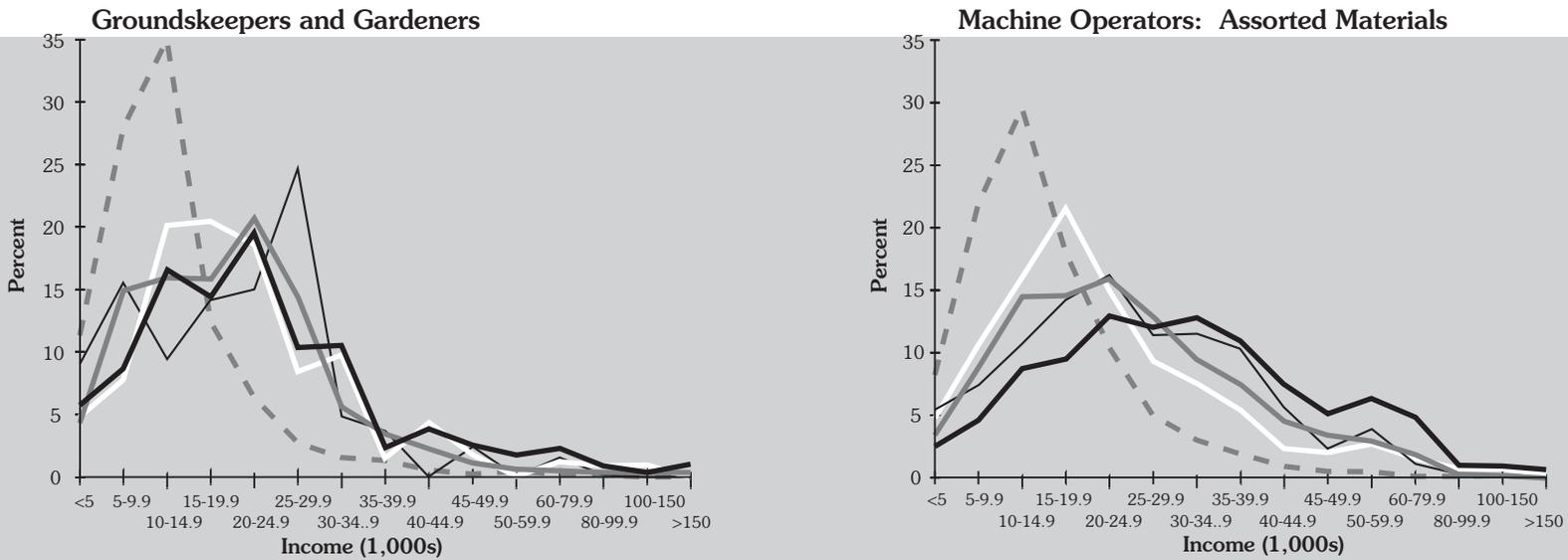
2. The increased income differences between whites and minorities in Southern California since 1959 are partly the result

Figure 7.5

Men's Income Distribution by Ethnicity in Selected Occupations, 1989



— Whites      — Blacks      — Asians      — Mexican Americans      - - - Mexican Immigrants



Source: U.S. Bureau of the Census (1992).

Notes: Assembler data are for census occupation code 785. Groundskeeper and gardener data are for code 486 (farmers not included). Janitor and cleaner data are for code 453 and machine operator data are for codes 753-779. Data are percent of males aged 14+ with positive annual incomes. Percents are the percent of the ethnic group with income in each category. Data are for the Los Angeles CMSA.

of nationwide trends since the mid-1970s. Nationally, the growing use of technology and the shift of manufacturing to other countries have produced a surplus of less-educated workers and a growing demand for those with higher education. In combination with changes in economic and social policies during the 1980s, this has led to income polarization among Americans. The net effect of all these developments has probably been to increase the relative incomes of whites and Asians (who are generally more educated) compared with those of blacks and Hispanics (who are generally less educated). Despite this trend of the 1980s, over the past thirty years the country as a whole experienced some narrowing of the income gap between blacks and whites. For workers of Mexican origin there has been little change in the gap nationally.

3. Widening income gaps in Southern California are also due partly to regional trends. By 1989 Southern California's blacks and people of Mexican origin had lost the favorable position compared with the rest of the country that they had known in 1959. In 1989 the gaps between these groups and whites were wider in this region than was case nationally.

4. The regional factor that seems to explain most of the growing income gaps in Southern California is the development of a surplus of low-skilled workers, mostly immigrants from Mexico, Central America, and Asia. The arrival of these immigrants spurred the expansion of low-wage manufacturing, epitomized by the apparel and furniture industries, and the low-wage service sector, in which restaurant-kitchen and car-wash employees, lawn-maintenance crews, janitors, and nannies find work. U.S.-born people working in those sectors bore the brunt of competition with the immigrants. The effect of this labor surplus has been to depress wages, not only for immigrants themselves but also for those born in the United States. This has been especially the case among less educated Mexican Americans—those who are not high-school graduates.

In other words, immigrants have played the major role in widening the region's income gap. Whites have tended to benefit economically from the large supply of low-wage labor and the increased gap while the incomes of Mexican Americans compared to other groups have declined. The extent to which immigrants have hurt employment opportunities and incomes among blacks

is not clear, and among Asians the effect probably varied according to the status of the specific group.

5. Differences in median income between the ethnic groups are little influenced by group tendencies toward self-employment and government work. However, if our analyses had identified specific occupations and industries within the three classes of employment, we might have been able to see greater effects on income.

6. Stratifying populations in terms of age, educational attainment, U.S. birth, full-time employment, and occupational type makes it possible to compare median incomes of subgroups matched according to human capital characteristics. This eliminates all of the gaps for U.S.-born Asian women and for black women who are college graduates. Because white women who work full time earn 65 percent as much as do men, the income gap that remains for women is one of gender rather than ethnicity.

7. With the same factors controlled, almost half the income gap for black men is eliminated, and for Mexican American men the gap is reduced by more than half. This shows that human capital (education, age, and U.S. birth) are important factors in the income gap.

8. Income gaps among men do not vary substantially and consistently by level of education. The presence of large gaps across most stratified subgroups suggests the effect of widespread cultural or social processes, the most important of which may be discrimination.

9. Income gaps among men are somewhat smaller among professionals than among managers and people in other occupations. It seems likely that academic degree requirements and possibly professional licensing provide some protection for minority men against a wider income gap.

10. Japanese American men in managerial occupations have incomes that average only 81 percent of the income of comparable white men. This appears to result from a "glass ceiling" or discriminatory limitations with respect to executive and administrative advancement, about which Asians have frequently complained.

11. Adjusted income gaps between people of Russian ancestry with bachelors and advanced degrees were almost as large as

those between whites and the black and Mexican-origin minorities. This demonstrates that gaps are not automatically explainable by racial discrimination.

12. Japanese and Chinese men who are college graduates and employed professionally earn slightly more than do white men. Similarly, the earnings of Japanese and Chinese women, both those in the professions and others who are not high-school or college graduates often exceed those of white women. This probably relates to certain cultural and social factors which we have not attempted to identify.

13. If specific occupations are examined, the income gap is pervasive, though less so in the more technical occupations. This demonstrates that minority-white income gaps cannot be primarily explained by ethnic group differences in the occupations followed. The large minority presence in some of these occupations may be the result of affirmative action policies. However, the level of wages or salary earned is much less influenced by affirmative action. All this suggests that efforts to increase minority proportions in better and generally higher-paying occupations may reduce the income gap but are not likely to eliminate it.

14. Among selected low-skill occupations, those in which Mexican immigrants constituted fewer than a third of the employees showed at least two ethnically defined income tiers, with Mexican immigrants on the bottom. This is evidence for what is sometimes called a dual labor market in that specific occupation. In contrast, occupations in which more than about 40 percent of the workers were Mexican immigrants did not have two or more income levels. Government employment or work in certain unions or industries has probably protected some workers against wage competition. In other cases, the influence of the immigrant labor surplus has been sufficient to depress wages throughout that occupation. This is additional evidence of the deleterious effect of large numbers of low-skilled Mexican immigrants on the incomes of other residents of Southern California.

To sum up, we have attempted to explain the income gap in several different ways, but with each analysis some portion of the gap has remained, especially among men and especially among people who are not professionals. Additional factors behind the persisting gaps are probably ethnic-group differences in home

environments, cultural heritage, attitudes toward work and achievement, family connections which can lead people toward better jobs, and employment discrimination. Separating out the influence of each of these and other possible factors in the explanation of income gaps is extremely difficult, if not impossible, though it has been the subject of much research and much argument.<sup>34</sup>

It is important for all Southern Californians, particularly for whites, to realize the size of the continued income gap among minority men, even among college-educated blacks and U.S.-born Hispanics. Awareness of this is salutary. It may prompt whites to examine their own treatment of minority individuals more carefully and understand with greater patience an underlying reason for the resentment that some minority people feel toward whites.

The existence of income gaps across most educational and occupational groups suggests that some form of discrimination may well be the greatest remaining factor behind the gaps.

## Notes

1. Those tables and analyses which are linked to the 1959-1989 trend studied in chapter six and include results for Japanese, Chinese, and Filipinos are based on data for Los Angeles and Orange Counties only. In all other analyses the entire five-county area was used. Differences in area of coverage appear insignificant, however, because factors causing ethnic differentials in medians are presumably the same from one county to another. Also, the lowest and highest median incomes in the five counties are found in Los Angeles and Orange Counties.

2. A thorough national study of changes in income gaps among black and Latino men and women from 1939 to 1989 is Carnoy (1994). Various chapters in Chan (1990) cover Asian groups in California; and Carnoy, Daley, and Ojeda (1993) is excellent on Latino trends. Analyses of income gaps during the 1970s and 1980s are integrated into more comprehensive analyses of economic status at the national level by Levy (1987, 1995) and by Harrison and Bennett (1995).

3. See particularly Harrison and Bluestone (1988) and Levy and Murnane (1992).

4. Taylor (1995).
5. Wetzel (1994).
6. Glass, Tienda, and Smith (1988).
7. Carnoy (1994).
8. Median incomes for groups for the entire United States are available in U.S. Bureau of the Census (1962a, 1963a, 1963b, 1993b, and 1993c). Data for people of Mexican origin in 1959 are available only for the five southwestern states; we used figures reported in Bean and Tienda (1987), Table 10.6.
9. In chapter 6 we adjusted certain ratios based on an improved method of calculation of net group differences (ND) where the median was a less satisfactory measure. Calculation of the black-white index of net difference for the United States showed that the relatively superior situation for Southern California black men in 1959 was greater than appears in Figure 7.1. The ND was .399 for the United States and .348 for Southern California in 1959, demonstrating that the black-white gap was 15 percent wider in the United States than in Southern California. The ND for whites and Hispanics was not calculated because nationwide data were not available.
10. Levy (1987).
11. Soja, Morales, and Wolff (1989); Scott and Paul (1991).
12. For an examination of this regional industry and its work force, see Bonacich (1994).
13. U.S. Bureau of the Census (1962b, 1962c, 1963b, and 1992). The percentage of blacks among all employed men in Los Angeles and Orange counties increased from 5.7 percent to 7.6 percent during the period, and the comparable percentage of Hispanics quadrupled, from 7.5 percent to 32.4 percent.
14. Salinas (1986); UCLA Research Group (1989).
15. Morales and Ong (1993).
16. Filer (1992); Walker, Ellis, and Barff (1992); Frey (1995b).
17. Frey (1995a).
18. Frisbie and Neidert (1977); Reimers (1985); Tienda and Lii (1987).
19. Ong and Valenzuela (1996), 175.
20. Hensley (1989). Using a more specific methodology than that used by most economists, Hensley demonstrated that a real reduction in wages in Los Angeles has occurred in those industries with high percentages of Mexican immigrant workers. He examined specific industries and by comparing relative industry wages in other areas with little Mexican immigration. The largest wage reduction he found was 12.6 percent, in the furniture industry.
21. Topel (1994).
22. With respect to education, the sample was stratified into four groups: people who had not graduated from high school, those who were high-school but not college graduates, college graduates who had not received an advanced (postgraduate) or professional degree, and those who had received an advanced or professional degree. To control for age, we analyzed medians for each of the four ten-year age cohorts (ages 25–34, 35–44, and so forth), then averaged the four medians. Variations among individuals in acculturation were controlled by limiting our sample to U.S.-born people. Where the analysis indicated fewer than 100 persons within any of the categories of matched characteristics for any ethnic group (meaning the sample was actually based on only five individuals), the median income is not reported.
23. Der (1993); Cheng and Yang (1966), 328.
24. The income ratio for all Japanese men, 103.2 (Table 6.3), may seem inconsistent with the lower ratios reported for the U.S.-born (Table 7.1). The difference is due to foreign-born Japanese executives, administrators, and professionals, who averaged 112 percent of the income of comparably educated whites in Southern California and constituted 47 percent of all employed persons born in Japan. Most of these are not immigrants but managers of Japanese corporate offices in Southern California who remain in the area for only a few years.
25. In addition, we investigated whether or not the race of Mexican-origin men played a role in their median incomes. This was done by calculating from our educationally and occupationally stratified populations the median incomes of U.S.-born Mexican-origin men who were white, compared with those of all other races. Nearly all who did not identify their race as white reported it as “Other Race.” There were no consistent differences in median income, echoing previous national findings from the 1980s (Reimers 1985). This showed that ethnic identity, rather than race identity based perhaps on skin color, was the important income-related influence for Mexican Americans.
26. Smith and Welch (1989), 560.
27. Carnoy, Daley, and Ojeda (1993).

28. The smaller gender income gaps for younger and college-educated women are demonstrated in Bianchi (1994). For a comprehensive look at characteristics of major ethnic groups, including incomes of full-time workers, see Harrison and Bennett (1994).

29. Carnoy (1994, 118) made a similar conclusion after a comparable analysis at the national level.

30. Hensley (1989).

31. Our analysis relates to the concepts of dual and segmented labor markets in the fields of economics and sociology. Those occupations in which income showed statistically significant differences between ethnic groups are presumably those in which two or more ethnically separate labor markets are functioning. Further explanation of dual labor-market theory and evidence can be found in Dickens and Lang (1988).

32. Scott (1988), 127–29.

33. One study of automobile wheel and battery manufacturers in Los Angeles has confirmed wage differentials based partly on the basis of ethnicity (Morales 1983). In these industries there are substantial wage-scale differences among employers. Some firms develop roughly three pay tiers, with highest pay for workers who are U.S. citizens, midlevel pay for legal immigrants, and lowest wages for immigrant workers who lack any legal status. Also, highly capitalized and more mechanized manufacturers use more U.S.-born and legal-resident workers and pay them more than immigrant workers lacking legal status. The latter typically dominate the workforce in labor-intensive firms where the work is often hazardous. However, in the garment industry a worker's status as a legal resident or an illegal one does not appear to affect his wages (Gill and Long 1989).

34. Most such research makes use of regression analysis to measure statistically the relationship between certain "human capital" characteristics of people and their incomes. Because there are no census data on certain characteristics, the best analyses combine census data with other sources. For example, one study using regression analysis found that the income gap at the national level between black and white men in their twenties was mostly eliminated when work experience, type of industry, and scores on the Armed Forces Qualification Test could be included (in addition to age and educational attainment) as potential influences on the income of individuals (O'Neill 1990). For college graduates the gap was completely eliminated. This means that the income gap was essentially the result of real differences in the characteristics of individuals and types of work rather than discrimination.

There is contrary evidence of discrimination, however. Differential treatment of whites and blacks that affects the income gap can occur in either initial hiring or in the later work situation. Discrimination in hiring has been demonstrated and measured in Chicago and Washington, DC, by recording the treatment and outcomes of matched and fully qualified white and black men applying for the same jobs. In most cases both received similar treatment. However, in 15 percent of the tests whites were offered jobs when equally qualified blacks were not, and in 5 percent of the tests blacks were offered jobs when equally qualified whites were not (Turner, Fix, and Struyk 1991). Among blacks already employed, evidence of racial discrimination as a factor in the income gap is found in the experiences reported by black men, especially those in the middle class (Feagin and Sikes 1994). The ostensibly innocuous rebuffs, delays, and other subtle barriers experienced by black contractors are described compellingly in Feagin and Imani (1994).