# Earning Differentials between Native-born and Immigrant in California 

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In the past 20 years the number of immigrants in the U.S. has increased tremendously as compared to the number registered in the late 19th century. The increase is attributed mainly to the abolition of the racial and national origin restriction in the 1965 immigration legislation and other subsequent legislation on political refugees.

As a consequence of the heavy flow of immigrants during the last 2 decades (19601980), the foreign born population in the U.S. has increased from 4.7 percent in 1970 to 6.2 percent in 1980 (Espenshade 1987). Besides this observable increase in volume of immigrants, there is also a remarkable change in the composition of these new entrants to the United States. In contrast to the early flow of immigrants who were mainly of White Anglo-Saxon Protestant (WASP) background, the latest influx of immigrants are from the third world countries with mixed racial and cultural heritage.

This assimilation orientation has continued to color much of the recent literature on this subject. The assimilation perspective posits that with sufficient time and training the immigrants will eventually fare as well, if not better, than the native
born groups (Boyd 1979; Tienda and Neidert 1980, 1986; Portes and Bach 1980; Portes 1981). However, many studies have challenged this assumption. The consensus found in these studies is that international migrants have high human capital characteristics coupled with high motivation which may be the result of a long history of discrimination. Compared to the nonmovers, immigrants as well as refugees therefore tend to be positively selected (Jackson 1969, Shaw 1975, Chiswick 1979). In other words, people who migrate to a foreign country are not a random selection from the country of origin but are better than the stayers in observable variables (human capital) as well as in nonobservable characteristics (motivation, aggressiveness, and entrepreneurship). Subsequent studies show that positive selectivity has been the standard explanation for the achievement of the foreign born population. Moreover, it has been observed that international migrants motivated by economic reasons see better opportunities in the country of destination, specifically in terms of the potential for higher wages as compared with what they were getting in their country of origin. Their decision to migrate of course occurs after weighing the psychic and social costs associated with moving to
a country with completely different values and cultural background (Mincer 1978, Borjas 1981).

In most cases, voluntary immigration occurs for economic reasons, and recent literature on immigration has reflected on the economic adaptation of these immigrants to the host country. For policy makers, findings on income and occupational differentials have been an important source of information. Studies have documented that upon arrival, migrants frequently encounter barriersi.e. non-transferability of skills. This is especially true for migrants coming from peasant economies and migrating to a postindustrial economy and for professionals who face licensing requirements that include proficiency in English as a prerequisite for their absorption into the U.S. labor market. Usually, migrants have lower earnings than the native born upon arrival in the U.S. However, over time (a period of $10-15$ years) the migrants "over-took" the native born (Chiswick 1978). The human capital framework often explains this finding. In other words, the wages of the migrants have little to do with their status (documented or undocumented) but are dependent more upon such factors as English language ability, time spent on the job and skills level (Chiswick 1984, 1985; Morales 1983; Heer and Falasco 1983; Massey 1987). In addition to the positive selection argument, Chiswick (1983) has further argued that immigrants, because they are less attached to any specific U.S. residence, may be more inclined to migrate to more promising job opportunities than their native born counterparts for whom family and friendship ties may result in psychic cost that hinder mobility.

Positive selection characteristics of immigrants and their capacity to make a living and even do fairly well in the U.S. have generated some hostility from those who see them as competitors in the job market. The sentiment is that immigrants are a social problem and should therefore be discouraged from entering the country. The reason for such belief and apprehension is that "immigrants are viewed as economic competitors and are believed to depress the wage rates and working conditions of the economy where they mostly concentrate" (Massey 1987, 238). The Simpson-Mazolli legislation in June 1984 is based on the assumption that immigrants have a negative economic, demographic, social or political impact on the U.S. population.

Significantly the dominant theme of the studies reviewed below is to determine whether this assumption has any validity, and to answer the question "What does it cost the host country to welcome immigrants?" The 'cost' is operationalized in terms of three issues. (1) With the increasing number of immigrants, is there a corresponding increase in the unemployment rate for the total population or for specific groups in the population? (2) What happens to the wage rate of immigrants as well as the wage rate of native born workers as immigrants increase in number? (3) Does the increasing number of immigrants depress wages for certain groups, particularly the unskilled sector? And, (4) Are immigrants a factor in raising the level of public services because they are in fact beneficiaries of government programs like the public school system? Clearly, the basic concern of all these issues is whether Americans gain or lose from immigration.

## PRIOR STUDIES

Several studies have assessed these issues. Bean et al. (1987) have classified research on these theme into two types, namely, those that are empirically based and those that are model-based. Two major empirical studies have been undertaken to assess the impact of immigration on unemployment rate and earnings. One is by Mueller and Espenshade (1985) and the other by McCarthy and Valdez (1986).

On the other hand, a series of studies by Borjas (1983, 1984, 1985, 1987), Grant and Hamersmesh $(1981,1986)$ and Grossman (1982) tested through model formulation the complementarity and substitutability of the immigrants and the native born as well as other immigrants and ethnic minorities. The estimation on earnings was done using the "leintief production technology." The assumption underlying these studies is based upon the labor demand theory where "firms tend to maximize profit and the inputs in the production process are usually defined as the various racial groups, gender, and other labor inputs such as capital." Implicit in these types of studies is that immigrant and the native populations are competitors in the production process.

A summary of the major findings of the aforementioned studies is presented below, organized into the following subheadings: immigrants vs. native population; immigrants by racial groups vs. native born men; immigrants vs. other immigrants, and immigrants vs. native-born population.

## IMMIGRANTS VS. NATIVE POPULATION

The conclusion of an early study by Borjas (1984) is that immigrants have a very small
"numerical impact" on the earnings of the native born population. In a later study, the same author showed that immigrants tend to be substitutes for some labor market groups and complements for others. Substitutability particularly affects white native-born men who tend to be adversely affected by the increase in the immigrant supply. Immigrants as a group are substitutes for the single largest demographic group in the U.S., white native born men (Borjas 1987). Replicating the method used by Borjas, the Bean et al. (1987) findings suggest that undocumented Mexican immigrants, like immigrants in general, act as complements or weak substitutes for most native workers.

Chiswick et al. (1985) also explored the degree of substitutability of immigrants for native workers in the labor market. Employing the ratio of earning of the foreign born relative to the native born, these researchers argue that immigrants and native workers need not be "perfect substitutes" in the economic production even if they are similar in the usually easily measured dimensions of skills such as schooling, formal job training programs, and labor market experiences. This is because the nature of the skills of immigrants and natives are different. Immigrants are more intensive in "self selection" characteristics (innate ability, aggressiveness, and entrepreneurship). The native born are more skilled in "country specific" skills (knowledge of the language and custom of the country). The native born have the advantage of training on the skills that are in greater demand. In other words, a greater supply of immigrants will not affect the earnings of native labor workers.

## IMMIGRANTS BY RACIAL CATEGORY VS. NATIVE-BORN MEN

The findings on immigrants segregated by racial groups-whites, blacks, Hispanics, and Asians show that immigrant men and black men are found to be complementary and that the relationship between black natives and white immigrants (who make up 40 percent of the immigrant population) is one of strong complementarity. There is no evidence that white or Asian immigrants have adversely affected black native-born men but there is marginal evidence that black native and Hispanic immigrant men are substitutes. On the other hand, the Hispanic immigrant men are found to be more substitutable with native born men than are non-Hispanic men. In other words, the entry of nonHispanic im-migrants into the market benefits native born men less than the entry of Hispanic immigrants into the market. Of the biggest Hispanic group, Mueller and Espenshade $(1985,93)$ have concretely stated that "Mexican immigrant workers typically do not compete directly with native workers for the same job nor do Mexicans seem to be adversely affected by lack of employment." McCarthy and Valdez (1986) even suggest that the Mexican immigrants improve the opportunities of native workers. However, it is not clear whether Mexicans were desegregated for nativity status in the two studies.

## IMMIGRANTS VS. OTHER IMMIGRANTS

The consensus that emerges from research is that the immigrants' main competitors in the labor market are other immigrants (Grossman 1982; Borjas 1984, 1985, 1986; King et al. 1986). An increase in the supply
of the immigrants has a sizeable impact on their earnings. For example, an increase of 10 percent in the supply results in a reduction of immigrants' wages by about 10 percent (Borjas 1987).

## IMMIGRAN.T WOMEN VS. NATIVE-BORN POPULATION

Immigrant women were found to substitute and reduce earnings of male native-born men. Black men in particular have been hurt by the entry of women in the labor force (Borjas 1984). The findings indicate that as far as women and men are concerned, strong substitutability exists between gender regardless of immigration status. Thus, substitutability of men and women is mainly due to gender rather than to immigration status.

It should be stressed that the conclusions of these studies, although tentative, show that census data do not confirm the assumption that immigrants greatly affect the earnings of natives. Even the detailed desegregation of immigrant population by race and of the Hispanic population by national origin fails to reveal a single instance in which cross-effects are large.

It should be further stressed that in many of the studies reviewed above the negative or positive impact of immigrants on the earnings and employment opportunities of the native born has been shown through the economic models of complementarity and substitution. At this point, these terms need to be explicitly defined although, as has been observed, their definitions may be drawn easily in the context of the above reviewed studies. What then is meant by complementarity?

Native and immigrant labors are complements when at least two conditions are observed to be true. First, that the "marginal productivity" (more laborers increase supply of goods and services) of the immigrants depends on the quantity of immigrants themselves and second, the increase in the demand for immigrant workers is accompanied by an increased demand for native workers. As the demand for native labor increases, their wages tend to increase but with increasing demand for immigrant labor, their wages tend to decrease. Killingsworth (1983) offered an interesting analogy for the immigrant native complementarity relationship, suggesting that "a decrease in the price of butter will increase the demand of bread, other things remaining equal." The decrease in the price of butter is similar to the decrease in wages of the immigrant workers while the increased demand for bread is similar to the increase in demand for native workers. In other words, as demand for native labor increases, their wages tend to increase but with the increasing demand, their wages subsequently tend to decrease. Such a condition is complementary because the two labor groups do not compete with each other but are cooperating together in production.

Substitutability on the other hand, occurs when the conditions opposite that of complementarity are true. Simply said, an increase in the number of immigrants in the labor market reduces the earnings of the native born population. This is to say that the "marginal productivity" of native born depends on the quantity of immigrants in the labor market. In other words, other things being equal, a decrease
in the wages received by the immigrant labor will prompt employers to hire more immigrants and thus eventually decrease the demand for native labor. Because of less demand for native workers, employers will hire them on the same wage level as the immigrant workers. In this case, a decrease (increase) in the wages received by immigrant labor also leads to a decrease (increase) in the wages received by the native workers because of less demand for native-born and the increased demand for immigrant labor. Similarly, Killingsworth compares this substitutability of relationship to that of margarine and butter. If other things remair equal, a "decrease in the price of margarine leads to a decrease in the demand for butter." The decrease in the price of margarine is similar to the decrease in the wages of immigrant workers while the decrease in the demand for butter is similar to the decrease in the demand for native labor.

## THE PRESENT STUDY

The study examines the complementarity and substitutability of immigrant groups with those of the native population. Thus the relationship between the size of different immigrant groups and their earnings relative to the native population is determined, using the same econometric model specifically the method employed by Chiswick (1983). The study population consists of adults in California. The individual level data in the study are obtained from the file A of the Public-Use Microdata Samples (PUMS) of California, Bureau of the Census, 1980.

Past studies have documented that immigrants tend to migrate selectively to a few cities and states. Four out of ten of
the recent immigrants counted in the census reside in just two consolidated areas, Los Angeles and New York (Mueller and Espenshade 1983). Among the states, California has in most recent years been the host of many immigrants from all parts of the world. The racial composition in California tells the picture. Although whites are still the majority group, consisting of about 76 percent of the total $23,667,902$ inhabitants counted in the 1980 census, those persons of Hispanic origin are rapidly growing. As of 1980 , this group represents about 19 percent of the total population of California, about three times more than the blacks. Another growing minority in California is the Asian Americans. In proportion to the total California population, their number is still insignificant. In proportion however to the total Asian population in the United States, Asian Americans are found to be concentrated in the West Coast. This is especially true for the Chinese, 46 percent of whom live in California. The same is true for Filipinos ( 40 percent), the Japanese ( 38 percent), Vietnamese ( 34 percent), and Korean (29 percent). With the exception of the Asian Indians of whom only 13 percent are in California, Asian Americans are considered to be more visible in this, than in any other, state in the country (Characteristics of Population, United States Summary, Bureau of the Census 1983). Because of the increasing number of immigrants, Californians are becoming concerned about the effect of immigrants on the wages and employment opportunities of the native population, particularly those of blacks. About 59 percent of the black population in

Southern California claim that their employment is threatened and that undocumented workers bring down their wages (Mueller and Espenshade 1985). This finding provides further justification for choosing California as the focus of this study.

The sample in the study are individuals residing in California categorized into the following racial groups: white, black, Japanese, Chinese, Filipino, Korean, Asian Indian, Vietnamese, Mexicans, Cubans; and other Spanish groups. All foreign-born females in all these racial categories were classified into one group. Previous research, has suggested that the earning differentials among different types of women are narrower than the earning differentials among different wages of men (Smith 1977). The native born white and nativeborn black serve as the reference groups for the different types of immigrants.

The analysis is restricted to workingage males and females aged 18-64 years who are salaried and income earners with nonzero weeks worked in 1979. Selfemployed individuals and those in the military are excluded. Listed below is the total sample in the study by immigrant category and sex as well as their percentage distribution. (See also Figure 1)

| Immigrant workers | 22,702 |
| :---: | :---: |
| Immigrant female |  |
| workers | 16,285 |
| Native male white | 16,704 |
| Native male black | 14,454 |
| TOTAL | 70,145 |

Figure 1. Percentage Distribution of the Labor Groups in California $N=70,145$


Source: File A Pumps US Census, 1980.

The dependent variable in the study is the natural logarithm of the 1979 annual earnings. Since the estimates should reflect not only difference in nativity per se but also differences in skills, the following variables were controlled, reflecting skills related to earning: years of schooling, work experience, work experience squared, weeks worked in 1979, a dummy code for marital status, and duration of residence.

To determine complementarity and substitutability, the simple law of supply and demand was applied by comparing the predicted earning value for each of the migrant labor groups in the study with that of the predicted earning value of native whites and native blacks. If substitution does occur, one would expect a relative decline in wages as the labor supply increases through immigration. On the
other hand, complementarity does exist if the relative labor supply (ratio of immigrant to the native labor) does not vary with the ratio of immigrants to native earnings. Thus, in the analysis, the ratio of immigrant to native earnings is related to their numbers. There is no incongruency expected since the data for the immigrant and native population come from those who belong to the same economic structure. Thus, the determinants of the earnings for both native and immigrant labor are practically the same, assuring perfect comparability between immigrant and native labor.

## RESULTS

The natural logarithm size of immigrant labor (decomposed by racial category) relative to the native white and native black

Table 1. Comparisons of the Size of the Labor Groups

| Labor Immigrant Group | N | Relative to <br> Native white <br> $(16,704)$ | Relative to <br> Native black <br> $(14,454)$ |
| :--- | ---: | :---: | :---: |
| white | 1,165 | -2.69 | -2.51 |
| black | 436 | -3.66 | -3.51 |
| Japanese | 638 | -3.20 | -3.05 |
| Chinese | 2,462 | -1.92 | -1.64 |
| Filipino | 2,504 | -1.90 | -1.62 |
| Korean | 813 | -3.03 | -2.86 |
| As. Indian | 688 | -3.18 | -3.05 |
| Vietnamese | 643 | -3.26 | -3.10 |
| Mexicans | 10,929 | -0.42 | -0.29 |
| Cubans | 185 | -4.49 | -4.33 |
| Other Spanish | 2,194 | -2.03 | -1.88 |
| Excl. Puerto Ricans | 7,793 | -0.76 | -0.61 |
| All Asians | 13,326 | -0.23 | 0.08 |
| All Hispanics | 16,285 | -0.02 | +0.12 |
| All females |  |  |  |

labor population is presented in Table 1. All immigrant labor groups when compared to native white and native black groups are smaller, except in the cases of Mexican immigrant labor and female immigrant labor groups which are proportionately larger than black native labor. The percentage distribution of the labor groups by race and immigrant status is further illustrated in a pie chart in figure 1. The large labor groups, in order of size, are native white, native blacks and Mexicans. Overall, however, the female labor immigrant groups constitute the second largest group (17.9 percent).

The means obtained for earnings and other related earning variables for each racial group in the study are shown in Table 2. Labor groups with relatively high
earnings are native born whites, white immigrants, Japanese immigrants, and the Asian Indian immigrants. The mean annual earnings of these groups range from $\$ 14,614$ to $\$ 13,951$. Meanwhile, the lowincome earners are the female immigrants $(\$ 6,027)$, the Vietnamese immigrants $(\$ 7,473)$ and the Mexican immigrants $(\$ 7,350)$. These latter groups earn approximately half of what the high income earners make. Asians in general have a higher annual mean income compared with the Hispanic immigrants, with the exception of the Cubans. The latter have an income similar to that of the Asian immigrants. This income seems to have a direct relation to the years of schooling completed; that is, the highincome earners have more years of schooling compared with the low-income earners. Aside from years of schooling,

Table 2. Comparisons of Earnings and Other Earnings Characteristics ${ }^{*}$

|  |  | Means |  |  |
| :--- | ---: | :---: | :---: | :---: |
| Labor Groups | Earnings | Years of <br> Schooling | Weeks <br> Worked in <br> 1979 | Experience <br> (age-grade-6) |
| white (N) | $\$ 14,554$ | 15.9 | 45.6 | 15.4 |
| white (I) | 14,641 | 15.8 | 44.6 | 18.5 |
| black (N) | 10,432 | 15.0 | 43.1 | 15.5 |
| black (I) | 9,035 | 15.9 | 40.9 | 13.1 |
| Japanese (I) | 14,553 | 16.8 | 45.7 | 12.1 |
| Chinese (I) | 11,039 | 15.8 | 43.5 | 16.2 |
| Filipino (I) | 10,532 | 16.2 | 42.5 | 15.3 |
| Korean (I) | 10,305 | 16.6 | 40.7 | 14.6 |
| As. Indian (I) | 13,951 | 17.9 | 44.0 | 11.7 |
| Vietnamese (I) | 7,473 | 15.6 | 36.0 | 10.6 |
| Mexicans (I) | 7,350 | 9.4 | 41.7 | 16.9 |
| Cubans (I) | 11,137 | 14.0 | 45.7 | 18.1 |
| Other Spanish (I) | 8,367 | 12.9 | 42.2 | 14.6 |
| Excl. Puerto Ricans | 10,938 | 16.3 | 42.4 | 14.5 |
| All Asians | 7,548 | 10.0 | 41.8 | 16.5 |
| All Hispanics | 6,027 | 13.4 | 38.7 | 15.5 |
| All females |  |  |  |  |

[^0]high-income groups correspondingly worked more weeks in 1979. Groups with relatively high income, more years of schooling, and more weeks worked are native whites, white immigrants, Japanese, Asian Indian, and Cubans. Compared to the Vietnamese and the female immigrants who worked for an average of 36 and 38 weeks respectively, those in relatively high income groups worked an average of 45 weeks in 1979. In terms of experience (age-grade-6), white and Cuban immigrants have an average of 18.5 and 18.1 years of experience. Vietnamese have the shortest
number of years of experience. This is expected because among all the immigrant groups they are the latest arrivals, the majority of whom is also relatively young. This is also true of the Asian Indians who are a young population and whose years of experience are also relatively short (11.7). The Japanese too have only 12.1 years of experience. Length of experience can explain the low incomes of the Vietnamese, but it has no effect on the incomes of the Asian Indians and Japanese immigrants. Figure 2 graphically shows the mean earnings of the various labor groups.

Figure 2. Mean Earning of the Labor Groups in California


Source: File A Pumps U.S. Census, 1980.

Table 3. Relative Differences in Earnings ${ }^{\text {s }}$ (native white labor vs. immigrant labor groups)

|  | No Statistical Control | Other Variables Held Constant ${ }^{\text {b }}$ |
| :--- | :---: | :---: |
| white (I) | +.01 | $+.06^{c}$ |
| black (I) | -.48 | $-.55^{c}$ |
| Japanese (I) | +.00 | $-.20^{c}$ |
| Chinese (I) | -.28 | $-.01^{c}$ |
| Filipino (I) | -.32 | $-.21^{c}$ |
| Korean (I) | -.35 | $-.02^{c}$ |
| As. Indian (I) | .04 | $+.08^{c}$ |
| Vietnamese )I) | -.67 | $-.04^{c}$ |
| Mexicans (I) | -.68 | $-.33^{c}$ |
| Cubans (I) | -.27 | $.03^{c}$ |
| Other Spanish (I) | -.55 | $-.24^{c}$ |
| All Asians (I) | -.28 | $-.02^{c}$ |
| All Hispanics (I) | -.66 | $.25^{c}$ |
| All females (I) | .88 | $-.29^{c}$ |

${ }^{2}$ The difference in the means of natural logarithm of earnings; a negative coefficient indicates lower earnings for the immigrant group.
${ }^{\text {b }}$ Variables held constant-years of schooling, experience, experience squared, marital status, in weeks worked in 1979, and duration of residence.
'Statistically significant at $1 \%$ level.

Tables 3 and 4 show comparisons between the ratio of earnings of the different immigrant labor groups in two instances: first, when there is no statistical control for other variables and second, when other variables are held constant. A strong negative relation is found for all the immigrant groups (Table 3) except white immigrants who exhibit a 1 percent increase when other variables are not held constant. These negative relations become significantly smaller for the majority of immigrant groups when other things are the same. The positive relation between Japanese immigrants and native whites when there is no statistical control, however, becomes negative when other variables are held constant. Earnings of the

Japanese are 20 percent less than the native whites. On the other hand, the earnings of Asian Indians changed from negative (no statistical control) to a positive relation (when controlling for other variables). One can also note the strong negative relation between the earnings of native whites and the number of the labor immigrant groups. The negative relation becomes weaker (from 48 percent to 55 percent) when other things are the same. But in the case of the blacks, the negative relationship even becomes stronger. Blacks with education hold primarily white-collar jobs with earnings that are somewhat close to the white average. Therefore, one might expect competition between white and Asian immigrants.

Table 4. Relative Differences in Earnings ${ }^{2}$ (native black labor vs. labor immigrant groups)

|  | No Statistical Control | Other Variables Held Constant ${ }^{\text {b }}$ |
| :--- | :---: | :---: |
| white (I) | +.34 | $+.23^{\mathrm{c}}$ |
| black (I) | -.14 | $-.38^{\mathrm{d}}$ |
| Japanese (I) | +.33 | $-.03^{\mathrm{c}}$ |
| Chinese (I) | -.06 | $-.16^{\mathrm{c}}$ |
| Filipino(I) | -.01 | $-.05^{\mathrm{c}}$ |
| Korean (I) | -.01 | $-.15^{\mathrm{c}}$ |
| As. Indian (I) | +.29 | $+.25^{\mathrm{c}}$ |
| Vietnamese (I) | -.33 | $+.13^{\mathrm{c}}$ |
| Mexicans (I) | -.35 | $-.16^{\mathrm{c}}$ |
| Cubans (I) | -.06 | $-.14^{\mathrm{c}}$ |
| Other Spanish (I) | -.22 | $-.07^{\mathrm{c}}$ |
| All Asians (I) | -.05 | $-.15^{\mathrm{c}}$ |
| All Hispanics (I) | -.32 | $-.08^{\mathrm{c}}$ |
| All females (I) | -.55 | $-.12^{\mathrm{c}}$ |

[^1]Table 5. Estimating the Elasticity of Substitution Between Immigrant and Native White Labor

| Labor Immigrant Group | Slope Coefficient ( t -ratio) <br> (1) | Elasticity Substitution <br> (2) |
| :---: | :---: | :---: |
| All | -0.0435 | 22.98 |
|  | (-1.00) |  |
| All except white | -0.0411 | 24.33 |
|  | (0.96) |  |
| All except black | - 0.0777 ${ }^{2}$ | 12.87 |
|  | (-2.93) |  |
| All except Japanese | -0.0471 | 21.23 |
|  | (-1.02) |  |
| All except Chinese | -0.0490 | 20.41 |
|  | (-1.12) |  |
| All except Filipino | -0.0423 | 23.64 |
|  | (-0.92) |  |
| All except Korean | -0.0401 | 24.94 |
|  | (0.88) |  |
| All except As. Indian | -0.0352 | 28.41 |
|  | $(-0.81)$ |  |
| All except Vietnamese | -0.0400 | 25.00 |
|  | (-0.87) |  |
| All except Mexican | -0.0286 | 34.97 |
|  | (-0.55) |  |
| All except Cuban | -0.0387 | 25.84 |
|  | (-0.74) |  |
| All except other Spanish | -0.0416 | 24.04 |
|  | (-0.91) |  |
| All except females | -0.0358 | 27.93 |
|  | (-0.63) |  |

${ }^{2}$ Statistically significant at $1 \%$ level.

In Tables 7 and 8, the elasticity of substitution is estimated with the exclusion of the white and the black immigrants from the entire sample. Thus, the "all, except white" refers to the deletion of both the white and the black immigrant labor groups. The obtained ratios suggest that the increase in qualities of each of the labor immigrant groups significantly reduces their own respective wage level.

However, the decline is small but significant for all the comparative groups. Hypothetically, therefore, if there are absolutely no black immigrants in California, all the rest of the other immigrant labor groups are not a good substitute for native white and black labor groups. It should be noted that in all comparative groups, the observed elasticity of substitution is small and negligible.

Table 6. Estimating the Elasticity of Substitution Between Immigrant and Native Black Labor

| Labor Immigrant Group | Slope Coefficient (t-ratio) <br> (1) | Elasticity Substitution <br> (2) |
| :---: | :---: | :---: |
| All | $\begin{aligned} & -0.0425 \\ & (-0.98) \end{aligned}$ | 23.53 |
| All except white | -.0.0401 (0.94) | 24.94 |
| All except black | $0.0769^{\text {a }}$ . | 13.00 |
| All except Japanese | $\begin{array}{r} -0.0461 \\ (-1.00) \end{array}$ | 21.69 |
| All except Chinese | -0.0491 $(-1.11)$ | 20.37 |
| All except Filipino | $-0.0407$ $(-0.88)$ | 24.57 |
| All except Korean | $\begin{array}{r} -0.0390 \\ (0.86) \end{array}$ | 25.64 |
| All except As. Indian | $\begin{array}{r} -0.0336 \\ (-0.77) \end{array}$ | 29.76 |
| All except Vietnamese | $\begin{aligned} & -0.0388 \\ & (-0.84) \end{aligned}$ | 25.77 |
| All except Mexican | $\begin{aligned} & -0.0277 \\ & (-0.54) \end{aligned}$ | 36.10 |
| All except Cuban | $\begin{array}{r} -0.0373 \\ (-0.71) \end{array}$ | 26.81 |
| All except other Spanish | $\begin{aligned} & -0.0406 \\ & (-0.89) \end{aligned}$ | 24.63 |
| All except females | -0.0343 (20.61) | 29.15 |

'Statistically significant at $1 \%$ level.

## SUMMARY AND CONCLUSIONS

The findings in the study confirm or support many of the studies done in this area. One finding, however, that is more explicitly stated in this study than in others is the impact of the black immigrants on the native white and black population in California. The apprehension of the native black population over the increasing number of im-
migrants in the region is somehow justified. The target of their grievances, however, is misdirected since the findings of the study show that immigrants of the same racial group are likely to be more of a threat to their earnings rather than other immigrant labor groups.

Still another significant finding of the study is the decline in earnings of immigrants relative to the native born.

Table 7. Estimating the Elasticity of Substitution Between Immigrant and Native White Labor

| Labor Immigrant Group | Slope Coefficient (t-ratio) <br> (1) | Elasticity Substitution (2) |
| :---: | :---: | :---: |
| All except white | $\begin{aligned} & -0.0746^{2} \\ & (-3.01) \end{aligned}$ | 13.40 |
| All except Japanese | $\begin{gathered} -0.0861^{1} \\ (-3.46) \end{gathered}$ | 11.61 |
| All except Chinese | $-0.817^{2}$ $(-3.23)$ | 12.24 |
| All except Filipino | $\begin{aligned} & -0.0757^{\mathrm{b}} \\ & (-2.73) \end{aligned}$ | 13.21 |
| All except Korean | $\begin{aligned} & -0.7559^{\mathrm{b}} \\ & (-2.69) \end{aligned}$ | 13.17. |
| All except As. Indian | $-0.0706^{6}$ <br> (-2.72) | 14.16 |
| All except Vietnamese | $-0.0774^{b}$ $(-2.69)$ | 12.92 |
| All except Mexican | $-0.0665^{\circ}$ $(-2.96)$ | 15.04 |
| All except Cuban | $\begin{aligned} & -0.0934^{2} \\ & (-2.96) \end{aligned}$ | 10.70 |
| All except other Spanish | $\begin{array}{r} -0.754^{b} \\ (-0.91) \end{array}$ | 13.36 |
| All except females | $\begin{array}{r} -0.0788^{\mathrm{b}} \\ (-0.63) \end{array}$ | 12.69 |

Note that all immigrants exclude blacks.
${ }^{2}$ Statistically significant at 1 percent level.
${ }^{\text {b }}$ Statistically significant at 5 percent level.
'Statistically significant at 10 percent level.

According to Borjas (1993), the immigrants in 1990 are earning 16 percent less than their native born counterparts. The decline in earnings is not only due to the increasing number of immigrants but also to the continuing decline in the
skills of new immigrants. In other words, the skills of immigrant labor are not comparable with native labor and therefore it is unlikely that immigrants will "take over" the jobs of the native born population.

Table 8. Estimating the Elasticity of Substitution Between Immigrant and Native Black Labor

| Labor Immigrant Group | Slope Coefficient (t-ratio) <br> (1) | Elasticity Substitution (2) |
| :---: | :---: | :---: |
| All except white | $\begin{aligned} & -0.0740^{+} \\ & (-2.94) \end{aligned}$ | 13.51 |
| All except Japanese | $\begin{aligned} & -0.0857 \\ & (-3.38) \end{aligned}$ | 11.67 |
| All except Chinese | $\begin{gathered} 0.0823^{*} \\ (-3.24) \end{gathered}$ | 12.51 |
| All except Filipino | $\begin{array}{r} -0.0746 \\ (-2.65) \end{array}$ | 13.40 |
| All except Korean | $-0.0751^{\text {b }}$ <br> (-2.63) | 13.31 |
| All except As. Indian | $\begin{gathered} 0.0697^{b} \\ (-2.63) \end{gathered}$ | 14.35 |
| All except Vietnamese | $\begin{array}{r} -0.0767^{\mathrm{b}} \\ (-2.63) \end{array}$ | 13.04 |
| All except Mexican | $\begin{aligned} & -0.0657^{c} \\ & (-2.09) \end{aligned}$ | 15.22 |
| All except Cuban | $\begin{array}{r} -0.0926^{\mathrm{b}} \\ (-2.88) \end{array}$ | 10.79 |
| All except other Spanish | $-0.0748^{b}$ $(-2.78)$ | 13.37 |
| All except females | $\begin{array}{r} -0.0772^{\mathrm{b}} \\ (-2.20) \end{array}$ | 12.95 |

Note that all immigrants exclude blacks.
${ }^{2}$ Statistically significant at 1 percent level.
${ }^{\text {b }}$ Statistically significant at 5 percent level.
${ }^{\text {CStatistically significant at }} 10$ percent level.

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[^0]:    ${ }^{2}$ The data refers to foreign born males aged $18-64$ who were salary and wage earners and had nonzero earnings (or income) and nonzero weeks worked in 1979.

[^1]:    ${ }^{\prime}$ The difference in the means of natural logarithm of earnings; a negative coefficient indicates lower earnings for the immigrant group.
    ${ }^{\text {b }}$ Variables held constant-years of schooling, experience, experience squared, marital status, in weeks worked in 1979 and duration of residence.
    'Statistically significant at $1 \%$ level.
    ${ }^{\mathrm{d}}$ No statistically significant effect of marital status on earnings.
    'No statistically significant effect of duration of residence on earnings.

