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## 4 Internal Migration of U.S. Immigrants

Ann P. Bartel and Marianne J. Koch

In a recent study of Indochinese refugees who arrived in the United States in 1975, after the fall of Saigon, Baker and North (1984) observed that 45 percent of these individuals lived in a different state in 1980 than in 1975, compared to 9 percent of the U.S. population. This finding is interesting not only because of the sheer magnitude of the migration but also because of its effect; the result of the relocation was an increased concentration of the refugees in a small number of states. This particular group of immigrants constitutes a very special case in that they all came as refugees from the same part of the world and in that they did not choose their 1975 locations but were placed there under a program operated by the Inter-Agency Task Force for Indochinese Refugees. Whether these findings generalize to other groups of immigrants that have recently arrived in the United States is the subject of this paper. Specifically, we ask how dispersed U.S. immigrants are on their arrival to this country and whether they change locations as time in the United States elapses. Further, we explore the determinants of the internal migration of U.S. immigrants and consider the effect of mobility on their earnings.

The study of the internal migration of immigrants is important in light of the expanding numbers of immigrants to this country. The ability to predict which areas of the country will receive immigrants will aid in planning for the provision of services to local populations. Further, if it is the case, as it was shown to be with the Indochinese refugees, that immigrants tend to cluster where their countrymen are located, planners in these cities may need to design bilingual or even multilingual programs to implement the delivery of services; this may, in turn, lead to a more permanently segregated U.S. society.

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In this paper, we investigate the internal mobility patterns of Asian, Central and South American, and European immigrants who arrived in the United States after 1964. In section 4.1, we study the extent to which they disperse throughout the country as time in the United States elapses and compare their inter-SMSA (standard metropolitan statistical area) mobility rates to those of the native population. Section 4.2 presents the results of estimating an econometric model of the determinants of changing SMSAs. A brief analysis of the effect of internal migration on earnings is discussed in section 4.3, and conclusions and policy implications are presented in section 4.4

#### 4.1 Mobility Patterns

In this section, we present statistics that can be used to describe the internal mobility patterns of recent immigrants to the United States. We restrict our analysis to SMSAs that have at least ten male immigrants aged 22–64 in the Public Use B Sample of the 1980 Census of Population. This resulted in fifty-three SMSAs. Since 90% of all the immigrants in the Census files (and 43 percent of the U.S. population) live in one of these SMSAs, this is not a very restrictive selection rule.<sup>1</sup>

The “new immigrant” population—or immigrants arriving in the United States after 1964—is stratified into three cohorts based on year of arrival in the United States: arrivals between 1965 and 1969, 1970 and 1974, and 1975 and 1979. The individuals in each of these cohorts are restricted to be of working age at the time of their arrival in the United States; hence, the most recent arrivals, those who came between 1975 and 1979, are aged 22–54 in 1980, while those who came between 1970 and 1974 are aged 27–59 in 1980, and the 1965–69 arrivals are aged 32–64 in 1980.

One way to describe the internal mobility patterns of recent immigrants to the United States is to calculate a Herfindahl index for the various samples of immigrants that we wish to study; this statistic provides a summary measure of the extent to which each of the groups is geographically dispersed throughout the United States.<sup>2</sup> Higher values of the index represent greater geographic concentration. In table 4.1, Herfindahl indices are shown for three main ethnic groups—Asians, Central and South Americans, and Europeans—and for several subcategories in each of these groups. The Herfindahl indices for the most recent cohort (i.e., the 1975–79 arrivals) are shown in column 1, for the middle cohort (i.e., the 1970–74 arrivals) in column 2, and for the earliest group (i.e., the 1965–69 arrivals) in column 3. In order to appreciate the magnitude of these indices, we also calculated the Herfindahl index for the total population in the fifty-three SMSAs in 1980; as shown in the note to the table, this statistic is .04. Numbers in excess of .04 indicate that the group under study is more concentrated than the total population in this sample of cities.

**Table 4.1 Herfindahl Indices for 1980 Geographic Distributions of Various Immigrant Cohorts**

|                                 | (1)<br>Arrived 1975-79<br>(aged 22-54 in 1980) | (2)<br>Arrived 1970-74<br>(aged 27-59 in 1980) | (3)<br>Arrived 1965-69<br>(aged 32-64 in 1980) |
|---------------------------------|--|--|--|
| Asians:                         | .09  | .09  | .09  |
| China                           | .17  | .16  | .15  |
| India                           | .09  | .08  | .07  |
| Japan                           | .15  | .18  | .19  |
| Korea                           | .18  | .11  | .11  |
| Philippines                     | .14  | .11  | .12  |
| Vietnam                         | .08  | .16  | .50  |
| Central and<br>South Americans: | .13  | .14  | .14  |
| Cuba                            | .40  | .34  | .36  |
| Mexico                          | .20  | .24  | .26  |
| Other                           | .17  | .24  | .26  |
| Europeans:                      | .07  | .10  | .08  |
| England                         | .05  | .05  | .06  |
| Italy                           | .09  | .19  | .15  |
| Greece                          | .14  | .12  | .14  |

*Note:* The Herfindahl Index for the total U.S. population in the fifty-three cities in the sample is .04.

The data in table 4.1 can be used to answer the question whether immigrants become more geographically dispersed as they acquire experience in this country. The degree of geographical dispersion is one indicator of assimilation into the new country (Massey 1981). To the extent that immigrants are able to learn about opportunities in other parts of the country as time in the United States elapses, we would expect to observe greater dispersion over time or evidence of assimilation. In terms of table 4.1, we would expect to observe smaller values in column 3 as compared to column 2 and, certainly, as compared to column 1. A possible offsetting factor is that immigrants may move from their initial destinations in the United States only to discover that they are unable to live without the support of their ethnic enclaves and then return to their SMSAs of initial destination. If this happens, we would observe that the degree of dispersion of the three cohorts in the 1980 cross section would be very similar.

We begin our discussion of table 4.1 by looking at the three main ethnic groups. Two important findings emerge. First, the immigrants, and especially the Central and South American immigrants, are more geographically concentrated than the U.S. population in the fifty-three cities. Second, for each of the main ethnic groups, there is no evidence of increased dispersion over time. Since the country composition of each of the main ethnic groups is likely to

have changed over time, the constancy of the Herfindahl indices across cohorts need not imply that there has been no dispersion for a given subcategory. For example, subgroups that are more dispersed on arrival to the United States may account for a larger proportion of the main ethnic group that has recently arrived; in table 4.1, this could mask the dispersion over time of other subgroups that represented a large share of the early cohorts. Hence, we also study the trend in the Herfindahl index for selected subgroups. There are only two cases, namely, the Koreans and the Cubans, in which we see greater geographic dispersion of the cohorts that arrived earlier.<sup>3</sup> In sum, the evidence of table 4.1 gives only limited support for the hypothesis that, as time elapses in the United States, the immigrants will become more dispersed throughout the country.

Of course, one of the problems with table 4.1 is that it is calculated from cross-sectional data on immigrants who were living in the United States in 1980. We have attempted to interpret these data as a pseudo-panel in order to draw a conclusion about changes in geographic dispersion over time. Actually, this conclusion can be based only on data for a given sample of immigrants who are observed at more than one point in time. Since 50% of the individuals in the Public Use Sample of the 1980 Census of Population were asked where they lived in 1975, it is possible to create a panel for this group. We calculated the Herfindahl indices for these individuals first for their 1975 locations and then for their locations in 1980. If the dispersion-with-time hypothesis is correct, then we should observe a decrease in the Herfindahl index between 1975 and 1980.

Table 4.2 reports these results for the 1965–69 and 1970–74 cohorts. When the main ethnic groups are not disaggregated, the Herfindahl indices hardly change between 1975 and 1980. For certain subgroups, however, we do find evidence of increased geographic dispersion between 1975 and 1980, and, to provide an arbitrary benchmark, we have indicated with an asterisk those groups for which there is at least a 20% fall in the Herfindahl index over the five-year period. These groups are entirely from the Asian category, namely, the immigrants from India, Japan, and Korea. We had inferred from table 4.1 that the Cubans dispersed over time, but, as table 4.2 clearly shows, this conclusion was erroneously based on our interpretation of a cross section of cohorts as a pseudo-panel. Relying on table 4.2 as the more correct picture of dispersion, we conclude that geographic dispersion over time is not a typical characteristic of the post-1964 immigrants to the United States.

Next we ask, although the new immigrants are not dispersing throughout the country, are they moving at all, or are they remaining in their original destination SMSAs? In other words, it is possible that these individuals are moving between SMSAs but that the degree of dispersion of the group is not changing; that is, person A is moving from city 1 to city 2 while person B is moving from city 2 to city 1. The percentages of various immigrant and ethnic

**Table 4.2 Herfindahl Indices in 1975 and 1980**

|                                 | Arrived 1970–74<br>(aged 27–59 in 1980) |      | Arrived 1964–69<br>(aged 32–64 in 1980) |       |
|---------------------------------|---|------|---|-------|
|                                 | 1975                                    | 1980 | 1975                                    | 1980  |
| Asians:                         | .11                                     | .10  | .09                                     | .09   |
| China                           | .22                                     | .19  | .16                                     | .15   |
| India                           | .13                                     | .10* | .10                                     | .08*  |
| Japan                           | .14                                     | .11* | .25                                     | .19*  |
| Korea                           | .14                                     | .10* | .15                                     | .12*  |
| Philippines                     | .12                                     | .11  | .14                                     | .14   |
| Vietnam                         | .22                                     | .22  | . . .                                   | . . . |
| Central and<br>South Americans: | .16                                     | .15  | .13                                     | .13   |
| Cuba                            | .32                                     | .36  | .32                                     | .36   |
| Mexico                          | .27                                     | .26  | .27                                     | .27   |
| Other                           | .30                                     | .28  | .25                                     | .23   |
| Europeans:                      | .11                                     | .10  | .10                                     | .09   |
| England                         | .08                                     | .07  | .07                                     | .08   |
| Italy                           | .14                                     | .13  | .22                                     | .18   |
| Greece                          | .15                                     | .13  | .14                                     | .14   |

*Note:* Herfindahl indices are calculated for the sample of immigrants that resided in one of the fifty-three SMSAs in both 1975 and 1980. See text.

\*The Herfindahl index decreased by at least 20% between 1975 and 1980.

native groups who moved between one of the fifty-three SMSAs in our sample during the period 1975–80 are shown in table 4.3<sup>4</sup> As before, the results are specific to the particular ethnic group.

We find that, although Asian immigrants are between two and three times as likely as natives of Asian ethnicity to change SMSAs, the Central and South American and European immigrants are less mobile than their native counterparts. Among the Asians, the Indians and Koreans stand out as the most mobile, and these were two of the three groups for which dispersion over time was observed.

The major conclusion from our analysis of the data in tables 4.1–4.3 is that there is little systematic evidence of dispersion of the immigrants throughout our sample of cities. This is true even for the Asian ethnic group whose inter-SMSA mobility rate greatly exceeds that of any of the native groups. In other words, immigrants do move between SMSAs during their first five or ten years in this country, but this mobility does not substantially affect the index of dispersion, except in a few isolated cases. In the next section of the paper, we describe and estimate a logit model that can explain why the immigrants in our sample did change SMSAs between 1975 and 1980.

**Table 4.3** Percentage of Immigrants and Natives Changing SMSAs between 1975 and 1980 (sample sizes in parentheses)

|                                    | (1)<br>Arrived 1970–74<br>(aged 27–59 in 1980) |         | (2)<br>Arrived 1965–69<br>(aged 32–64 in 1980) |       | (3)<br>Natives<br>(aged 27–64 in 1980) <sup>a</sup> |         |
|------------------------------------|--|---------|--|-------|---|---------|
| Asians:                            | 19.8   | (567)   | 15.3   | (334) | 8.5   | (925)   |
| China                              | 13.0   | (92)    | 14.3   | (70)  |   |         |
| India                              | 23.9   | (92)    | 19.6   | (56)  |   |         |
| Japan                              | 17.4   | (23)    | 8.3  | (12)  |   |         |
| Korea                              | 21.0   | (62)    | 25.0   | (16)  |   |         |
| Philippines                        | 17.1   | (123)   | 13.5   | (89)  |   |         |
| Vietnam                            | 25.0   | (8)     | . . .  | (0)   |   |         |
| Central and<br>South<br>Americans: | 8.0  | (1,072) | 7.4  | (838) | 10.6  | (1,965) |
| Cuba                               | 8.1  | (99)    | 7.8  | (205) |   |         |
| Mexico                             | 6.6  | (531)   | 4.0  | (253) |   |         |
| Other                              | 9.7  | (442)   | 9.5  | (380) |   |         |
| Europeans:                         | 8.8  | (410)   | 8.4  | (439) | 14.0  | (1,275) |
| England                            | 24.0   | (25)    | 12.1   | (33)  |   |         |
| Italy                              | 7.7  | (91)    | 7.8  | (102) |   |         |
| Greece                             | 5.4  | (56)    | 5.1  | (59)  |   |         |

*Note:* Percentages are calculated for the sample of immigrants that resided in one of the fifty-three SMSAs in both 1975 and 1980.

<sup>a</sup>The natives are disaggregated into three categories: (1) Asian ethnicity; (2) Central and South American ethnicity; and (3) non-Hispanic whites or European ethnicity.

## 4.2 Determinants of Internal Migration

In this section, we describe and estimate an econometric model of the determinants of the internal migration of recent immigrants to the United States. In section 4.2.1, the model is described and the variables we utilize defined. Section 4.2.2 presents the results for the immigrants and compares them to the results for natives of similar ethnicity as well as native whites.

### 4.2.1 Econometric Framework

Beginning with Sjaastad (1962), economists have argued that an individual changes location within a country if the discounted net gain from moving is positive. In other words,

$$(1) \quad PM_t = f(G_t),$$

where  $PM_t$  is the probability that the individual moves in time period  $t$ , and  $G_t$  is the discounted net gain from moving.  $G_t$  can be written as follows:

$$(2) \quad G_t = Y_t^* - Y_t - C_t,$$

where  $Y_t^*$  is the present value of the expected real income stream if the individual migrates in time period  $t$ ,  $Y_t$  is the present value of the expected real income stream in the current location calculated at time  $t$ , and  $C_t$  are the costs of migration. In order to study the determinants of the probability of moving, those variables that measure the discounted net return from moving must be identified. Greenwood's 1975 survey of the literature on geographic mobility and articles on this subject published after 1975 (e.g., Bartel 1979; and Fields 1979) show that economists have used information on the individual's characteristics and the characteristics of the area in which he or she resides at the beginning of the period under study as proxies for the components of  $G_t$ .

We follow this procedure in specifying a model of the determinants of the 1975–80 inter-SMSA movement of immigrants who arrived in the United States between 1965 and 1974. Since our sample is obtained from the Public Use Sample of the 1980 Census of Population, information on personal characteristics as of 1975 is rather limited. We do have three variables in this category: (1) the individual's age in 1975 (AGE) (2) his education in 1980 (EDUC); and (3) whether he reports the ability to speak English well or very well in 1980 (SPEAKS). Although education is measured in 1980, since the individuals in our sample were at least 22 years old at the time of *immigration*, it is very unlikely that educational attainment changed in any systematic way between 1975 and 1980. Similarly, SPEAKS is measured in 1980 and, if anything, is an overestimate of some individuals' true ability to speak English in 1975, so that its estimated effect on migration is an understatement of the true effect.

We expect age to have a negative effect on the probability of changing SMSAs since the time period over which to capture the discounted returns from migration shrinks as the individual ages. Education should have a positive effect since, as it has been argued in previous work, the more educated individual is better able to adapt to new locations and is more efficient in searching for jobs in other locations. SPEAKS should have a positive effect on internal migration since the immigrants who are more facile with the English language will have better information on opportunities throughout the country and will also be better able to adapt to a new location.

Five variables are used to describe the SMSA in which the individual resided in 1975. They are (1) total population of the SMSA in 1975 (TPOP), (2) the 1975 unemployment rate in the SMSA (UNRATE), (3) the logarithm of the average wage in the city (LNWAGE), (4) the level of welfare benefits in the SMSA in 1975 as measured by the logarithm of the average monthly general assistance payment per recipient (LNGEN), and (5) the proportion of the SMSA's population in 1975 that is foreign born and of the *same* ethnicity as the immigrant being studied (PFOR) (in other words, for an Asian immigrant, PFOR is coded as the percentage of the SMSA's 1975 population that was born in Asia, for a Mexican immigrant, PFOR is the percentage of the SMSA's 1975 population that was born in Mexico, etc.).



TPOP is obtained from the *Statistical Abstract of the United States*, UNRATE is from the *State and Metropolitan Area Databook*, LNWAGE is calculated from the data in the Public Use Sample, LNGEN is from the *Public Assistance Statistics*, and PFOR is calculated from the published volumes of the 1980 Census of Population.<sup>5</sup> TPOP is expected to have a negative sign since population acts as a measure of job opportunities and general economic activity. UNRATE should have a positive sign because, as the probability of finding a job in the SMSA decreases, out-migration should occur. LNWAGE and LNGEN are predicted to have negative signs since they measure attractive characteristics of the city. (LNGEN is likely to be correlated with the level of social services in the city.) Finally, the location of fellow countrymen has been shown to be a significant determinant of the settlement patterns of U.S. immigrants (see Bartel 1989; and Dunlevy 1980). We would then expect to see a negative effect of PFOR on the probability of leaving the 1975 SMSA; this effect should be smaller for immigrants who arrived between 1965 and 1969 than for those arriving later since time spent in the United States should weaken the attachment to fellow countrymen.

#### 4.2.2 Logit Results

Equation (1) is estimated on the sample of male immigrants who arrived in the United States between 1965 and 1974, who reported their 1975 and 1980 U.S. residences as one of the fifty-three SMSAs that were defined in section 4.1, and who were between the ages of 22 and 54 when they *arrived* in the United States.

Columns 1–4 in table 4.4 report the results of estimating equation (1) on the two immigrant cohorts. The logit technique is used to estimate these equations. Among the personal characteristics, EDUC and AGE have the hypothesized signs, with the more educated and the younger immigrants being significantly more likely to change SMSAs between 1975 and 1980. Two ethnic dummy variables, ASIAN and CSA (Central and South Americans), are used to compare the migration rates of these groups to the excluded group, the Europeans. In columns 2 and 4, these dummy variables are interacted with PFOR to capture differences in responsiveness to the location of fellow countrymen. We find that, even when the other personal characteristics are included in the equation, the Asians who arrived in the 1970–74 wave are still significantly more mobile than the other immigrants who arrived during that time interval.

The variables that measure relative economic opportunities in the cities (UNRATE, LNWAGE, and LNGEN) do not have the effects that we had predicted. In only one case, UNRATE for the 1970–74 cohort, do we find a significant effect. The result that stands out in table 4.4 is that for both cohorts PFOR is negative and significant. As predicted, the immigrants are most likely to move from those cities where their fellow countrymen constitute a very small percentage of the total population. This is precisely what Baker and North observed for the Indochinese refugees who did not choose their 1975 locations

**Table 4.4** Probability of Changing SMSAs between 1975 and 1980 (*t*-values in parentheses)

|            | (1)  | (2)               | (3)  | (4)               | (5)                             | (6)                                      | (7)                                       |
|------------|--|-------------------|--|-------------------|---------------------------------|--|---|
|            | 1965-69 Immigrants<br>(aged 32-64 in 1980) |                   | 1970-74 Immigrants<br>(aged 27-59 in 1980) |                   | Natives<br>(aged 27-64 in 1980) | White<br>Natives<br>(aged 27-64 in 1980) | Ethnic<br>Natives<br>(aged 27-64 in 1980) |
| EDUC       | .09<br>(4.35)                              | .10<br>(4.64)     | .09<br>(5.07)                              | .09<br>(5.11)     | .15<br>(6.09)                   | .21<br>(4.58)                            | .11<br>(3.93)                             |
| AGE        | -.03<br>(-2.57)                            | -.03<br>(-2.63)   | -.02<br>(-2.34)                            | -.02<br>(-2.30)   | -.03<br>(-4.24)                 | -.01<br>(-.55)                           | -.05<br>(-4.79)                           |
| SPEAKS     | -.01<br>(-.05)                             | -.08<br>(-.40)    | -.11<br>(-.65)                             | -.12<br>(-.71)    | .17<br>(.98)                    | .97<br>(2.04)                            | .07<br>(.39)                              |
| UNRATE     | .02<br>(.49)                               | .02<br>(.45)      | .06<br>(1.62)                              | .06<br>(1.53)     | .13<br>(2.95)                   | .10<br>(1.17)                            | .09<br>(1.51)                             |
| LNWAGE     | -1.53<br>(-1.17)                           | -1.67<br>(-1.26)  | -1.03<br>(-.94)                            | -1.14<br>(-1.00)  | 2.65<br>(2.68)                  | 2.72<br>(1.48)                           | 1.96<br>(1.59)                            |
| LNGEN      | .21<br>(.62)                               | .03<br>(.09)      | .20<br>(.67)                               | .15<br>(.51)      | -1.12<br>(-3.65)                | -1.05<br>(-2.22)                         | -.86<br>(-1.90)                           |
| TPOP       | -.37<br>(-1.06)                            | -.37<br>(-1.04)   | -.55<br>(-1.91)                            | -.56<br>(-1.88)   | .12<br>(4.34)                   | .02<br>(.03)                             | .20<br>(4.52)                             |
| PFOR       | -6.45<br>(-2.27)                           | 13.33<br>(1.43)   | -6.94<br>(-2.41)                           | 4.52<br>(.50)     | -.45<br>(-.23)                  | 6.42<br>(2.11)                           | -7.01<br>(-1.95)                          |
| ASIAN      | .13<br>(.49)                               | .82<br>(1.54)     | .48<br>(2.10)                              | .97<br>(1.95)     | -.57<br>(-2.52)                 |  | -.23<br>(-1.11)                           |
| CSA        | -.03<br>(-.14)                             | .10<br>(1.95)     | .02<br>(.12)                               | .61<br>(1.25)     | -.30<br>(-1.30)                 |  |   |
| PFOR*ASIAN |  | -10.71<br>(-.86)  |  | -9.42<br>(-.80)   |                                 |  |   |
| PFOR*CSA   |  | -23.38<br>(-2.38) |  | -13.25<br>(-1.40) |                                 |  |   |
| N          | 1,611                                      | 1,611             | 2,049                                      | 2,049             | 2,824                           | 676                                      | 2,148                                     |

on their own. We had expected to see a weaker effect of this variable for the immigrants who had spent more time in the United States as of 1975 (i.e., the 1965-69 arrivals), but their attachment to their fellow countrymen is just as strong. In columns 2 and 4, we interact PFOR with the ethnic dummy variables, ASIAN and CSA, in order to see if our ethnic groups are equally responsive to this variable. For both cohorts, the results show that only the Central and South Americans changed SMSAs in response to the presence of fellow countrymen.

If the Central and South American immigrants are indeed moving from those cities where PFOR is low, then we would expect to observe an increase between 1975 and 1980 in the mean values of PFOR for those individuals who move. In rows 1, 3, and 5 of table 4.5, we show the ratio of mean PFOR in 1980 to its mean in 1975 separately for the movers and the stayers in our sample. The table also reports, for the movers only, the ratio of the 1980 mean

value of PFOR based on their 1975 locations, divided by the 1975 mean value. In other words, this ratio, shown in rows 2, 4, and 6, describes how the 1975 locations changed between 1975 and 1980. Table 4.5 confirms that PFOR increased more between 1975 and 1980 for the Central and South American movers than the stayers; the immigrants in this ethnic group who changed locations in the United States experienced an increase in the concentration of fellow countrymen, and, as shown by comparing rows 3 and 4, this increase could only have occurred by changing SMSAs. Although these movers are initially in cities with lower values of PFOR compared to the stayers, by 1980 the gap has narrowed.<sup>6</sup> Consistent with the regressions in table 4.4, the results for the other ethnic groups in table 4.5 show that a change of SMSA does not increase the concentration of fellow countrymen; in fact, for the Europeans, there is a *decrease* for both cohorts.

In columns 5–7 of table 4.4, we report the results of estimating equation (1) on a sample of natives aged 27–65 in 1980. Column 5 includes white natives and natives who report themselves of either Asian, Cuban, Mexican, or other Hispanic ancestry. The purpose of this analysis is to compare the behavior of the immigrants with that of individuals who were born and raised in the United States and presumably have better information about the country.<sup>7</sup> Although EDUC and AGE have the same effects for the natives as they did for the immigrants, we do observe different effects for the city characteristics. LNGEN is now negative and significant, indicating a greater sensitivity (or awareness?) of the natives to welfare benefits and social services. But LNWAGE actually has the wrong sign! The most interesting finding is that the white natives (col. 6) are more likely to move *from* those cities with a high concentration of foreign born (in col. 6, PFOR refers to *all* ethnic groups), while the ethnic natives, like the immigrants, prefer to stay in cities with a high concentration of individuals from their country of ancestry.

**Table 4.5** A Comparison of 1975 and 1980 Mean Values of PFOR for Movers and Stayers

|                                | 1965–69 Cohort |         | 1970–74 Cohort |         |
|--------------------------------|----------------|---------|----------------|---------|
|                                | Movers         | Stayers | Movers         | Stayers |
| Asians:                        |                |         |                |         |
| 1. PFOR80/PFOR75               | 1.46           | 1.67    | 1.76           | 1.72    |
| 2. PFOR80 (in 75 city)/PFOR75  | 1.64           |         | 1.69           |         |
| Central and South Americans:   |                |         |                |         |
| 3. PFOR80/PFOR75               | 1.63           | 1.19    | 1.53           | 1.32    |
| 4. PFOR80 (in 75 city)/PFOR75  | 1.28           |         | 1.27           |         |
| Europeans:                     |                |         |                |         |
| 5. PFOR80/PFOR75               | .83            | 1.10    | .89            | 1.10    |
| 6. PFOR80 (in 75 city)/PFOR 75 | .97            |         | 1.10           |         |

### 4.3 The Effect of Internal Migration on Wages

In this section of the paper, we study the effects of a change in SMSA between 1975 and 1980 on the 1980 wage rates of the immigrants who arrived between 1965 and 1974. We also compare the results to similar wage equations that are estimated on our sample of natives. Previous work on migration has not conclusively established that migrants necessarily experience an increase in wages following a change in location.<sup>8</sup>

We examine the effect of internal migration on wages by estimating a  $\log(\text{wage})$  equation on 1980 data that includes the standard variables such as education, experience, experience squared, marital status, health status, and a vector of ethnicity dummies. We then add a variable called MOVE, which equals one if the individual changed SMSAs between 1975 and 1980. Since the various ethnic groups are pooled in our sample, we also interact MOVE with our two ethnic dummy variables and create MOVEASN and MOVECSA; the comparison group is, therefore, the Europeans. We also distinguish two categories of moves, moving to an SMSA where PFOR is higher than it was in the origin SMSA (MOVEUP) and moving to an SMSA where PFOR is lower than it was in the origin SMSA (MOVEDOWN). We expect the coefficient on MOVEUP to be less positive than the coefficient on MOVEDOWN for two reasons. First, since immigrants prefer to live with fellow countrymen, compensating differentials will reduce the return to MOVEUP. Second, crowding effects should depress the wages of immigrants in cities with large foreign-born populations.

The results of estimating the wage equation are shown in table 4.6. Only the coefficients on the mobility variables are shown; all the other variables had the usual signs. The equations were estimated separately for the two immigrant cohorts in order to see if time spent in the United States influences the returns to internal migration. In columns 1 and 4, we see that MOVE is insignificant for both cohorts but that it is positive for the earlier immigrants. Distinguishing the returns to migration for the different ethnic groups is important, as shown in column 2. Among the 1965–69 arrivals, only the Europeans experienced a significant increase in wages when they changed SMSAs between 1975 and 1980. The hypothesis regarding the relative effects of MOVEUP and MOVEDOWN is confirmed for this cohort. MOVEDOWN has a positive and significant coefficient, while the coefficient on MOVEUP is insignificant. The fact that only 9% of the movers are in the MOVEDOWN category suggests that this small group is unique in its ability to leave ethnic networks and move to areas where their skills are more highly rewarded. In the case of the 1970–74 arrivals, however, ethnicity plays no role; MOVE is insignificant for all the groups. Finally, columns 7 and 8 show the effect of internal migration on the wages of natives. The results here conform to the findings of previous research, namely, an insignificant effect of geographic mobility on wage rates.

**Table 4.6** Effects of Changing SMSA between 1975 and 1980 on Log (1980 wage rate) of Immigrants and Natives

|          | 1965-69 Arrivals |                 |               | 1970-74 Arrivals |                |                | Natives      |                 |
|----------|------------------|-----------------|---------------|------------------|----------------|----------------|--------------|-----------------|
|          | (1)              | (2)             | (3)           | (4)              | (5)            | (6)            | (7)          | (8)             |
| MOVE     | .06<br>(.94)     | .34<br>(2.52)   |               | -.01<br>(-.26)   | .08<br>(.60)   |                | .03<br>(.59) | .03<br>(.27)    |
| MOVECSA  |                  | -.38<br>(-2.30) |               |                  | -.16<br>(-.99) |                |              | .11<br>(.87)    |
| MOVEASN  |                  | -.34<br>(-1.92) |               |                  | -.07<br>(-.46) |                |              | -.18<br>(-1.26) |
| MOVEUP   |                  |                 | .02<br>(.31)  |                  |                | -.01<br>(-.24) |              |                 |
| MOVEDOWN |                  |                 | .29<br>(1.80) |                  |                | -.02<br>(-.11) |              |                 |
| N        | 1,400            | 1,400           | 1,400         | 1,809            | 1,809          | 1,809          | 2,387        | 2,387           |

Note: Other variables included in these equations are education, experience, experience squared, marital status, health status, and ethnicity.

#### 4.4 Summary

The major finding of this paper is that, although recent immigrants to the United States move between SMSAs at a rate that is comparable to or in some cases exceeds that of ethnic natives, there is little systematic evidence that this immigrant population becomes more geographically dispersed as time in the United States elapses. The only groups for whom we observed evidence of dispersion between 1975 and 1980 were the Indians, Japanese, and Koreans.

The logit analysis of the determinants of migration between SMSAs showed that the more educated and younger immigrants are most likely to move. The variables that measure relative economic opportunities in the cities (unemployment rate, area wages, and welfare benefits) did not have significant effects on the probability that an immigrant changes SMSAs. For the Central and South American immigrants, we found that the concentration of fellow countrymen in the city was an important determinant of migration. These immigrants changed SMSAs in order to move to cities with *higher* concentrations of Central and South Americans. On the other hand, the high mobility rates of the Asian immigrants were unrelated to the percentages of Asians in the various cities, while the Europeans who moved actually experienced a *decrease* in the concentration of fellow countrymen. Obviously, there are important differences in the characteristics of these ethnic groups that could explain their different behavior, but with our data we have been unable to measure these factors.

While it is difficult to explain satisfactorily why immigrants change locations in the United States, we can conclude that whatever migration does oc-

cur is unlikely to lead to a substantial increase in the geographic dispersion of newer immigrants in the United States. It is important to note that this conclusion presumes that, if geographic dispersion occurs at all, it takes place within the first fifteen years of experience in the United States. At best, treating our cross section as a pseudo-panel, we have been able to observe the new immigrants only fifteen years after arrival in the United States. If we rely on our actual panel data, then our conclusion is extrapolated from only five years of data. Hence, it is possible that dispersion may occur but that we have been unable to observe it. An even larger question, of course, remains unanswered by our study. Is the lack of geographic dispersion a problem? On the one hand, some sociologists have argued that this will inhibit the process of assimilation. But an equally valid argument could be that ethnic enclaves provide the financial and emotional support necessary for immigrants to achieve success in their new country.

## Notes

1. Adding more SMSAs increases the costs of data collection because our logit analysis reported in the next section requires information on city characteristics. The rate at which these costs rise far exceeds the rate at which the size of the immigrant sample increases.

2. The index is defined as  $\sum_{i=1}^n S_i^2$ , where  $S_i$  is the proportion of individuals in the  $i$ th SMSA.

3. The 1975–79 arrivals from Vietnam are more dispersed than the earlier cohorts because of the special placement program described earlier.

4. The samples of natives that are of Asian or Central and South American ethnicity each represent 25% of the actual number of observations in the Public Use B Sample. The non-Hispanic whites, or those of European ethnicity, are 1% of the actual number in the sample.

5. Note that *LNWAGE* is measured as of 1980, so we are implicitly assuming that high-wage cities in 1980 were also high-wage cities in 1975; in other words, that there was no systematic change in the ranking of cities according to wage level during this time period.

6. The 1975 ratio of *PFOR* for Central and South American movers relative to *PFOR* for Central and South American stayers is .55 for the 1965–69 cohort and .73 for the 1970–74 cohort. The 1980 ratio is .76 for the 1965–69 group and .85 for the 1970–74 group.

7. Regarding the construction of the native sample, see n. 4 above.

8. Greenwood (1975) shows that, while many studies have found a positive return to migration, others have been unable to support this conclusion. Bartel (1979) found that the wage gains from migration are dependent on the nature of the move (i.e., whether it is accompanied by a quit, a layoff, or an internal transfer within a company) and the age of the migrant. In particular, only those who were transferred by their companies experienced an increase in wages, which was significant for individuals under age 45.

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