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# Determinants of Recent Immigrants' Locational Choices

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**Abstract:** High levels of immigration to the United States have caused the size of the foreign-born population to increase dramatically in recent years. Recent immigrants are concentrated in several states, particularly California. This paper examines the determinants of the intended state of residence of new recipients of legal permanent-resident status and new refugees over the 1989–94 period. The presence of other foreign-born people is the primary determinant of the locational choices of new legal permanent residents, but there are some differences among immigrant groups by admission category and by country of origin. Only refugees' locations appear to be sensitive to welfare generosity.

JEL classification: J61, R23

Key words: immigrants, foreign-born, locational choice

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## **Determinants of Recent Immigrants' Locational Choices**

In 1996, the percentage of the population in the United States that is foreign-born reached its highest fraction since the 1930s. The foreign-born population has swelled through both legal and illegal immigration. The U.S. granted over seven million people legal permanent resident status during 1989-1994, a large portion of whom had already illegally resided in the country. During the same period, more than six hundred thousand refugees arrived in the U.S. In addition, the Immigration and Naturalization Service estimates that the illegal alien population increased by over one million over 1988-1992. This influx of foreign-born individuals has raised concerns that high levels of immigration may exert downwards pressure on wages, reduce employment opportunities for natives, and impose large burdens on public services. These beliefs have received mixed support from researchers. Nonetheless, such concerns were manifest in immigration and welfare laws passed by Congress in 1996 that strengthened measures to control illegal immigration and restricted noncitizens' eligibility for welfare benefits.

The effects of immigration are of concern to states that have attracted large numbers of recent immigrants, particularly California. Given the tendency of the foreign-born to settle in a few areas rather than to disperse uniformly across the country, it is important to understand why immigrants settle in certain areas. Policy makers may believe that areas with booming economies attract a large number of immigrants, or that generous welfare benefits act as a magnet. U.S. Representative Lamar Smith of Texas, for example, stated that public benefits attract both legal and illegal immigrants (Smith 1996). This paper examines whether demographic characteristics, economic conditions, and welfare benefits affect the number of new recipients of legal permanent resident status and new refugees who settle in a state.

Understanding the determinants of these immigrants' locational choices can help state and local policy makers anticipate the number of foreign-born persons moving to their area. In addition, legislators may want to consider potential effects of government policies on the location choices of the foreign-born when setting or changing policies.

This study examines the determinants of the locational choices of foreign-born individuals who were granted legal permanent resident or refugee status over a period of six years. The data are more comprehensive than those used in previous studies and allow for a fuller examination of the effect of economic conditions and welfare benefits on where immigrants settle. The next section of the paper reviews the literature on the locational choices of foreign-born individuals. I then discuss the data and set out the hypotheses to be tested. The data are used to estimate the effects of state-level demographic, economic, and social policy variables on the number of new recipients of legal permanent resident status and new refugees settling in a state over 1989-1994. I also explore differences between groups by admission category and by country of origin. The results indicate that the presence of the foreign-born is the primary determinant of the locational choices of individuals receiving legal permanent resident status, and refugees appear to be more likely to settle in states with higher welfare payments.

## *SUMMARY OF THE LITERATURE*

Previous research suggests that the most important determinant of immigrants' locational choices within the U.S. is the presence of earlier immigrants. Dunlevy (1991) finds a positive correlation between the number of new recipients of legal permanent resident status from eleven

Caribbean and Latin American nations settling in a state in 1987 and the number of persons born in the same country already present in the state. Bartel (1989) concludes that the probability of a foreign-born man living in a given standard metropolitan statistical area (SMSA) is positively correlated with the fraction of the same ethnic population that resides in the area. Buckley (1996) also finds a positive correlation between the number of new recipients of legal permanent resident status settling in a state over 1985-1991 and the foreign-born fraction of the state population.

The presence of other foreign-born persons also exerts a strong influence on migration patterns by the foreign-born within the United States. The foreign-born tend to be more concentrated in particular cities, such as New York and Los Angeles, than natives are. There is little evidence that the foreign-born, except for the most educated, become more dispersed the longer they reside in the United States (Bartel and Koch 1991; Bartel 1989). Indeed, internal migration leads to greater concentration among some ethnic groups as recent immigrants move to areas with higher concentrations of compatriots (Belanger and Rogers 1992). Living in an area with a large foreign-born population from the same region also reduces the likelihood of secondary migration among foreign-born adults, including undocumented aliens (Kritz and Nogle 1994; Neuman and Tienda 1994).

The role of economic factors in the locational choices of the foreign-born is less clear. Based on an analysis of 1980 Census data on recently arrived foreign-born adult men, Filer (1992) concludes that local labor market conditions do not significantly affect where the foreign-born live. However, Bartel (1989) uses similar data and finds that foreign-born adult men are more likely to live in SMSAs with higher average wages and higher average general assistance

payments. Bartel (1989) also reports that the Hispanic foreign-born are less likely to live in areas with high unemployment rates. Kritz and Nogle (1994) find that higher state unemployment rates do not prompt foreign-born individuals to move, a result they consider surprising since higher unemployment rates cause natives to migrate. Bartel and Koch (1991) similarly find that the probability of foreign-born adult men moving between SMSAs over 1975-1980 is not affected by the unemployment rate in the initial location; the average wage and level of general assistance benefits also do not affect mobility in their sample.

A few studies find that welfare payments influence immigrants' locational decisions. Buckley (1996) contends that new recipients of legal permanent resident status are more likely to settle in states with higher Aid to Families with Dependent Children (AFDC) benefits, and the relationship is strongest among individuals who originally came to the U.S. as refugees. Zimmerman and Fix (1994) report evidence of secondary migration by refugees to high welfare states during the 1980s. In data from the 1990s, however, they find that job opportunities and family and ethnic communities may play a larger role in refugees' migration decisions than welfare generosity.

Most of these studies examine the locational choices of all foreign-born individuals, although a few focus on the destinations of recent immigrants or refugees. Dunlevy (1991) and Buckley (1996) examine the determinants of the locational choices of new recipients of legal permanent resident status using data similar to that used in this study. This paper adds to the literature an examination of which factors affect the settlement patterns of new recipients of legal permanent resident status, broken down by admission category and by country of origin, and of new refugees. This issue is of interest because of the large number of people who were granted

legal permanent resident status or were new refugees to the U.S. during 1989-1994. Public attention has focused on why they settled in particular states and the possible effects on those areas.

### *DESCRIPTION OF DATA*

This study uses data from the Immigration and Naturalization Service (INS) and the Office of Refugee Resettlement (ORR) to examine the locational choices of new recipients of legal permanent resident status and new refugees.<sup>1</sup> During 1989-1994, there were four main categories under which people were granted legal permanent resident (LPR) status: family-sponsored preferences, employment-based preferences, the Immigration Reform and Control Act of 1986 (IRCA), and refugee and asylee adjustments.<sup>2</sup> Immigrants who were granted LPR status in a given year in these categories, plus several other categories that accounted for a small proportion of individuals granted LPR status, are referred to as new LPRs in this paper.

Individuals admitted to the U.S. because they have a close family relationship with a U.S. citizen or another LPR accounted for about 38 percent of new LPRs during 1989-1994. Individuals admitted because of their job skills accounted for about 8 percent of new LPRs. Under the IRCA, individuals who had illegally resided in the U.S. continually since 1982 and special agricultural workers who had worked illegally in the U.S. during 1986 were eligible to receive LPR status. Conversions to legal status under the IRCA composed about 37 percent of

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<sup>1</sup> Data sources are listed in the appendix. The INS data on state of residence by admission category are unpublished and were supplied by Frank Buckley.

<sup>2</sup> Other special programs under which individuals can receive LPR status include the diversity program and the Amerasian program. Until 1992, there was an annual limit of 5000 on asylee conversions. After 1991, there is a “pierceable” annual cap on the number of people who could receive LPR status under employment-based preferences and family-sponsored preferences.

individuals granted LPR status during 1989-1994. People admitted to the U.S. as refugees or asylees may convert to LPR status after one year. About 10 percent of individuals granted LPR status were refugee and asylee conversions, the majority of whom were refugees.

The locational choice data used here differ slightly across admission categories. For immigrants granted LPR status who are newly entering the U.S., the INS reports their intended state of residence. For people who already live in the U.S., such as individuals granted LPR status under the IRCA and refugee/asylee conversions, the INS data indicate the current state of residence. The ORR reports the state in which new refugees initially settle; these data can be compared to the location of refugees and asylees who converted to LPR status to gauge refugees' resettlement patterns. Although the initial locations of undocumented aliens who converted to LPR status under the IRCA are not examined here, the INS data provide insight into the current locational choices of a large number of immigrants.<sup>3</sup> The INS and ORR data used here report the total number of people in each admissions category settling in a state and do not include individual characteristics, such as occupation and age, on immigrants by state of intended residence.

New legal permanent residents are highly concentrated in several states, and there are some clear differences by admission category in the settlement patterns. Table 1 reports the fraction of individuals in each admission category settling in several major states and the total number of individuals in each category over 1989-1994. During that period, more than three-fourths of all individuals who received legal permanent resident status settled in just six states (California, Florida, Illinois, New Jersey, New York, and Texas). California alone was the

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<sup>3</sup> Neuman and Tienda (1994) report that almost 75 percent of applicants applied for amnesty under the IRCA in the same state as they entered the country.



destination of almost 38 percent of new LPRs. Individuals who received LPR status under the IRCA are much more likely to live in California and Texas than individuals in the other categories. Individuals admitted under employment-based preferences tend to be more widely dispersed than the other LPR groups.

New refugees are generally less concentrated than any of the LPR groups, including refugee and asylee conversions. Several non-profit groups carry out the initial resettlement of new refugees through cooperative agreements with the U.S. Department of State. The initial location of refugees may not reflect their preferred locations, as the different distributions of new refugees and refugee/asylee conversions across states suggest. The Office of Refugee Resettlement, which tracks the secondary migration of certain refugees within the U.S., reports that refugees tend to move out of California to other states and move into Washington from other states (Office of Refugee Resettlement 1995).

Immigrants in all admission categories are likely to be attracted to states with large total populations and large foreign-born populations. The same factors that attract other people to particular states are likely to attract recent immigrants, so more recent immigrants are expected to settle in states with larger total populations. The location of other foreign-born persons is also likely to affect recent immigrants' locational choices, although the magnitude of the effect may differ across admission categories. The location of other immigrants may have the largest effect on the locational choices of family-sponsored LPRs, who are likely to live near the sponsoring relatives. Some refugees are explicitly placed near compatriots (Jasso and Rosenzweig 1990), so the size of the foreign-born population in a state is also likely to significantly affect the locations of new refugees and refugees/asylees converting to LPR status. The total state population and

the percentage of the state population that is foreign-born are included in the regressions that follow.

Other factors that influence where recent immigrants settled are likely to vary by admission category. Economic conditions may matter more to persons admitted under employment-based preferences than to other groups since those individuals are admitted to the U.S. because of job skills instead of family ties. The average unemployment rate and the real average hourly wage in manufacturing are included in the regressions to measure the effect of economic conditions on where new LPRs and new refugees settle. The difference between the highest and the lowest marginal income tax rates in a state is also included in the regressions; this variable proxies for a state's willingness to redistribute income to low-income individuals, which is relevant since recent immigrants earn less than natives, on average.<sup>4</sup> Another measure of states' progressivity is the generosity of welfare benefits. Welfare benefits may play a larger role in the locational choices of new refugees and refugees/asylees converting to LPR status than other groups since refugees tend to have higher rates of welfare reciprocity than natives and other immigrants (Borjas 1994).<sup>5</sup> Welfare generosity is measured using the real maximum combined value of Aid to Families with Dependent Children (AFDC) and food stamps benefits for a family of three. The effects of Supplemental Security Income (SSI) benefits, for which the impoverished elderly qualify, and Medicaid health care benefits are also investigated in some regressions.

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<sup>4</sup> Of course, state and local sales taxes and property taxes may ameliorate or increase the progressivity indicated by the difference between the two income tax rates.

<sup>5</sup> The Office of Refugee Resettlement (1993) reports that 22.4 percent of households with persons who were new refugees in the past five years surveyed received AFDC benefits over the past year, 19 percent received SSI benefits, and 62.2 percent received food stamps.

## EMPIRICAL MODEL AND RESULTS

A simple regression model is used to investigate the determinants of where new LPRs and new refugees settle. The number of individuals settling in a state is regressed on variables that measure demographic characteristics, economic conditions, and progressivity, or

$$I_{kt} = \alpha + \text{Demog}_{kt-1}\beta + \text{Econ}_{kt-1}\delta + \text{Prog}_{kt-1}\gamma + T_t + R_k + \eta_{kt}, \quad (1)$$

where  $I_{kt}$  is the log of number of persons immigrating to state  $k$  in year  $t$ . Equation 1 is estimated using annual data on the number of new LPRs settling in the 51 states during the years 1989-1994, or 306 observations. Separate regressions are also estimated for the four major admission categories of new LPRs and for new refugees.

The vector  $\text{Demog}_{kt-1}$  includes logs of total population and the fraction of the state population that is foreign-born. The vector  $\text{Econ}_{kt-1}$  includes logs of the unemployment rate and real average hourly manufacturing wage in state  $k$  at year  $t-1$ . The vector  $\text{Prog}_{kt-1}$  includes the difference between the highest and lowest marginal state income tax rates and the log of the real maximum combined AFDC and food stamps benefits for a family of three. The wage and welfare variables are deflated using the consumer price index for urban consumers, and descriptive statistics are in the Appendix. All covariates are lagged one year for two reasons: to avoid the possibility of endogeneity bias, and to reflect the information upon which immigrants are likely to base decisions. I expect all of the variables except the unemployment rate to be positively correlated with the number of immigrants.

Equation 1 is estimated using weighted two-stage least squares because of concerns about

the foreign-born population share variable. The foreign-born population share is only available for 1980, 1990, and 1994.<sup>6</sup> The variable is therefore linearly interpolated for the other sample years based on its 1980, 1990, and 1994 values in each state. This process makes the foreign-born population share variable correlated by construction with the dependent variable in most years, so it is instrumented using the log of the number of persons naturalized in state  $k$  in year  $t-1$ .<sup>7</sup> The observations are weighted using the state total population.

Year and region fixed effects are also included in the regressions. The five year effects  $T_t$  control for effects that are common to all states in a particular year, such as changes in national immigration policy or the national business cycle. The eight region effects  $R_k$ , which correspond to the Census regions, control for any time-invariant effects common to a group of neighboring states, such as a tendency for new LPRs to not settle in the South Atlantic states. The error term  $\eta_{kt}$  is White-corrected for heteroskedasticity within states. The estimated coefficients on all of the variables except the difference in the two income tax rates and the fixed effects can be interpreted as elasticities because most of the variables are in logs. Transforming the dependent variable from a level to a log also avoids difficulties resulting from its large variation.<sup>8</sup>

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<sup>6</sup> The 1994 foreign-born population share, which is based on unpublished data, is estimated by pooling the outgoing rotation group files from the Current Population Survey (CPS) for 1994-1996 and using the population weights. The three years are pooled to form the 1994 foreign born population share in a state because the CPS sample size is considerably smaller than the decennial census.

<sup>7</sup> The problem arises because immigration levels in, for example, 1989 are reflected in the 1990 Census, and the 1988 foreign-born population share is based on a linear interpolation of its values in 1980 and 1990. This makes the foreign-born population share variable correlated with the error term in most years. LPRs generally must be in the U.S. at least five years to receive naturalized citizenship (LPRs married to U.S. citizens may naturalize in three years), so the number of naturalizations is unlikely to be correlated with the error term in equation 1. One potential concern about the instrument is that earlier immigrants may sponsor new immigrants admitted under the family-preference categories, so the instrument may be correlated with error term in some specifications. However, no other variable is a clear candidate for use as an instrument.

<sup>8</sup> Observations of the dependent variable that are equal to zero are transformed to 0.1 before taking the log. Dropping these observations does not affect the results.

### *Estimation Results*

The estimation results reported in Table 2 indicate that recent immigrants are primarily attracted to more populous states and states with a large foreign-born population share. As column 1 reports, the estimated elasticities of the total population variable and the foreign-born population share variables are about 1 for all new LPRs, indicating that a 10 percent increase in either variable is associated with a 10 percent increase in the number of new LPRs intending to reside in that state. The total population and foreign-born population variables are statistically significant at the 1 percent level in each of the six regressions.

There are several differences in the effect of economic conditions on the locational choices of immigrants in the various admission categories. Family-sponsored LPRs and new refugees are less likely to settle in states with higher unemployment rates. LPRs admitted under employment-based preference categories also are less likely to settle in states with higher unemployment rates, and they are attracted to states with higher wages and a larger difference between the highest and the lowest marginal tax rates. Employment-based LPRs appear to be the most sensitive of the groups to economic conditions. Low wages do not appear to discourage immigrants who received LPR status under the IRCA from settling in a particular state.

New refugees and refugees/asylees converting to LPR status are the only groups who appear to be more likely to live in states with higher combined AFDC and food stamps benefits. A 1 percent increase in welfare benefits is associated with a 2 percent increase in the number of refugee/asylee conversions living in a state and a 1.6 percent increase in the number of new refugees settling in a state. However, this does not necessarily indicate that refugees seek states with higher welfare benefits. The groups in charge of settling new refugees may determine

where many refugees initially settle, rather than refugees themselves choosing where to live. In addition, the level of welfare benefits may capture unmeasured aspects of a state's willingness to provide services refugees desire, such as English as a second language classes and job training programs. Table 2 also indicates that the foreign-born population share has less influence on where new refugees and refugee/asylee conversions settle than the other groups. A 10 percent increase in the foreign born population share is associated with a 5.1 percent increase in the number of new refugees in a state and a 6.2 percent increase in refugee/asylee conversions in a state.

The results in Table 2 generally are robust to several specification checks. First, the observations for California were dropped from the sample because of concerns that the high levels of immigration to California may be driving the results. Omitting the observations from California does not affect the strong association between the number of recent immigrants settling in a state and the total state population and foreign-born population share in any of the regressions. Some of the other results do change. Family-sponsored LPRs are not less attracted to states with high unemployment rates when the observations from California are dropped. The relationships between the number of employment-based LPRs and refugee/asylee conversion LPRs settling in a state and the difference between the highest and lowest marginal income tax rates are also not significant when the observations from California are omitted.

Several other measures of welfare generosity besides combined maximum AFDC and food stamps benefits were used to examine whether recent immigrants settle in states with high benefits. AFDC benefits generally are only available to female-headed households with children, and some states have not allowed new immigrants who would otherwise qualify for the program

to receive these benefits. Other measures of welfare benefits therefore may play a larger role in recent immigrants' locational choices. The real maximum combined Supplemental Security Income (SSI) and food stamps benefits available to an elderly person living alone or real average Medicaid payments per beneficiary were included in equation 1 instead of the AFDC measure.

The results indicate a positive correlation between the level of combined SSI and food stamps benefits and the number of all new LPRs, family-sponsored LPRs, employment-based LPRs, and IRCA conversions settling in a state. It is unlikely that these results indicate a causal relationship given that employment-based LPRs are unlikely to receive SSI benefits; the SSI and food stamps benefits variable appears to be capturing some other unmeasured characteristic that attracts recent immigrants. When Medicaid benefits are included in the regressions, there is a negative, insignificant relationship between the level of combined SSI and food stamps benefits and the number of new refugees and refugee/asylee conversions settling in a state. There is a positive correlation between the number of family-sponsored LPRs who intend to settle in a state and average Medicaid benefits per recipient. There also is a positive relationship between the number of refugee/asylee conversions in a state and average Medicaid benefits, but there is no significant relationship among new refugees.

Immigrants may base their locational choices on changes in economic conditions, not on recent economic conditions. For example, immigrants may be attracted to states with faster-growing wages rather than to states with relatively high wage levels. The lagged percentage changes in the real average manufacturing wage and the unemployment rate were therefore included in the regressions instead of the lagged level of the real wage and the unemployment rate. The results indicate that employment-based LPRs are more likely to settle in states with

rising real wages, while immigrants converting to LPR status under the IRCA are less likely to settle in states with rising wages. The number of new refugees and the total number of new LPRs settling in state are negatively associated with a rise in the unemployment rate. The other coefficients are not affected by changing the variables used to measure economic conditions.

### *Results by Country of Origin*

The locational choice model is also estimated using data on the number of new LPRs from five countries: China, the Dominican Republic, Mexico, the Philippines, and Vietnam. These five countries account for about one-half of new LPRs over 1989-1994, and each accounts for at least 3.5 percent of new LPRs during that period. Mexico is the country of origin for the largest number of new LPRs during 1989-1994; many of these immigrants from Mexico received LPR status under the IRCA, but data broken down by country, admission category, and state of intended residence are not available. As Table 3 shows, there are striking differences in where recent immigrants from the five countries settle. New LPRs from the Dominican Republic tend to settle in New York and New Jersey, for example, while new LPRs from Mexico are likely to live in California and Texas.

Using country-level data has several advantages. First, the distance between the country of origin and the 51 states can be controlled for. The economic and psychological costs of moving to a particular state are likely to rise as the distance from the country of origin to that state increases. Second, the foreign-born population share variable can be country-specific. Immigrants' locational choices are more likely to be affected by the fraction of the state population from the same country of origin than by the total foreign-born population. The



regression model is therefore modified to

$$I_{jkt} = \alpha + Demog_{jkt-1}\beta + Econ_{kt-1}\delta + Prog_{kt-1}\gamma + Dist_{jk}\lambda + T_t + R_k + \eta_{kt}, \quad (2)$$

where  $I_{jkt}$  is the log of number of persons from country  $j$  receiving LPR status in state  $k$  in year  $t$ .

The foreign-born population share variable included in  $Demog_{jkt-1}$  measures the fraction of the state population born in the same country and is instrumented using the number of persons from the same country naturalized in state  $k$  in year  $t-1$ . The vectors  $Econ_{kt-1}$  and  $Prog_{kt-1}$  are the same as above because the economic and progressivity variables do not vary by country of origin.  $Dist_{jk}$  is the log of the distance in miles between the largest city in the origin country and the largest city in the destination state and is expected to be negatively correlated with the number of immigrants.<sup>9</sup>

The results in Table 4 reveal that the foreign-born population share and the total population size are the primary determinants of the locations of immigrants from all five countries. All of the estimated coefficients on the foreign-born population share and total population variables are significant at the 1 percent level, and most indicate an elasticity near 1. New LPRs from Vietnam have the lowest propensity to settle in states where other foreign-born people from the same country live.

The role of economic conditions varies across countries. The number of immigrants from China and Vietnam settling in a state falls as the unemployment rate rises. Immigrants from the Dominican Republic and Vietnam are attracted to states with high average manufacturing wages;

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<sup>9</sup> Jeff Gorham of the U.S. Department of Transportation, Bureau of Airline Statistics, graciously supplied the distance data, which is unpublished.

the number of immigrants from the Philippines is negatively correlated with wages. Immigrants from the Dominican Republic and Vietnam appear to be less likely to settle in areas with a larger difference between the highest and the lowest marginal income tax rates.

Welfare benefits have no significant effect on the number of new LPRs from any country settling in a state, the same result as reported for new LPRs in Table 2. The estimated coefficients on the distance variable generally are negative but are not significant, indicating that the distance between the country of origin and locations in the U.S. does not affect recent immigrants' locational choices. None of the economic or progressivity variables affect the locational choices of new LPRs from Mexico, the largest source country of immigrants in recent years.

Omitting the observations from California does not change the general pattern of the coefficients, except that economic conditions are no longer significantly correlated with the number of new LPRs from Vietnam settling in a state. New LPRs from the Philippines appear to be more likely to settle in states with higher combined SSI and food stamps benefits, while new LPRs from Vietnam appear to be less likely to settle in states with higher SSI and food stamps benefits. The number of new LPRs from the Dominican Republic and the Philippines settling in a state is positively associated with average Medicaid payments per recipient in a state. A 10 percent increase in average Medicaid payments per beneficiary is associated with a 7.2 percent increase in the number of new LPRs from the Dominican Republic and a 3 percent in the number of new LPRs from the Philippines settling in a state. If the unemployment rate and the average manufacturing wage are measured as growth rates instead of levels, the results do not indicate that new LPRs from any of the five countries are attracted to states with growing economies.

Immigrants may consider the distribution of people from the same country across states, rather than the fraction of the population in a state from the same country, when deciding where to live. The foreign-born population share variable was therefore replaced with a variable measuring the fraction of all foreign-born people from the same country of origin living in a state. For example, the fraction of all people born in Vietnam and now in the U.S. who live in California was used in the regressions instead of the fraction of the population in California that was born in Vietnam. The estimated coefficients of the foreign-born population distribution variable are positive and significant at the 1 percent level in the regressions for all five countries. Most indicate an elasticity of about 1, although the estimated elasticity for new LPRs from Vietnam is about 0.8.

The effect of total population changes when the foreign-born population distribution variable is used instead of the foreign-born population share. The positive relationship between the number of new LPRs settling in a state and the total state population is no longer significant except for new LPRs from Vietnam. Combined AFDC and food stamps benefits do not appear to play a role in the locational choices of new LPRs from any of the five countries, regardless of how the foreign-born population variable is defined.

## *CONCLUSION*

The presence of other foreign-born persons is the primary determinant of recent immigrants' locational choices within the U.S., a finding similar to previous research. The strong relationship between the locations of new legal permanent residents and the foreign-born already present in the U.S. suggests that federal, state, and local governments have little power to

influence the settlement patterns of most new legal immigrants unless government policies affect where earlier immigrants live.

Economic conditions, as measured by the unemployment rate and the average manufacturing wage, appear to play a minor role in most recent immigrants' settlement patterns. LPRs admitted under employment-based preferences are the group most attracted to states with favorable economic conditions. In addition, employment-based LPRs are less influenced by the location of other foreign-born people than most of the other admission categories. The determinants of locational choice may also vary by educational attainment, but INS data on new immigrants' locational choices by education groups are not publicly available. The settlement patterns of new legal immigrants might be substantially different if U.S. immigration policy is changed to admit more immigrants under employment-based preferences and fewer under family-sponsored preferences or to favor immigrants with more schooling.

There is a great deal of public concern about welfare reciprocity among the foreign-born, as was manifest in the 1996 welfare law that restricted noncitizens' eligibility for federally-funded benefits. However, this study finds little evidence that recent recipients of LPR status base their locational choices within the U.S. on the generosity of welfare benefits. Indeed, this result may not be surprising since new immigrants have not been allowed to receive state-funded benefits in some states, and undocumented aliens converting to LPR status under the Immigration Reform and Control Act were barred from receiving federally-funded benefits for five years. In addition, the income of a LPR's sponsor is supposed to be included in the determination of a LPR's eligibility for most welfare benefits for three years following admission, making it more difficult for recent immigrants to qualify for benefits. Although the

data used here do not indicate that welfare generosity influences the locational choices of immigrants in most admission categories, some immigrants' locations may be affected by welfare. In particular, elderly immigrants may be more likely to settle in states with more generous SSI benefits, but data on new immigrants' locational choices by age group are not publicly available.

New refugees and refugees/asylees converting to LPR status do appear to be more likely to settle in states with higher AFDC and food stamps benefits. This accords with Borjas's (1994) report that refugees have higher welfare reciprocity rates than natives and other foreign-born individuals. This finding is of public policy concern if higher welfare benefits slow refugees' transition to working, particularly given that the 1996 welfare law only allows refugees to receive most federally-funded welfare benefits for the first five years after admission unless they become U.S. citizens.

## APPENDIX

### *Data Sources*

Number of legal permanent residents, naturalizations, and state of intended residence: U.S. Immigration and Naturalization Service, *Statistical Yearbook of the Immigration and Naturalization Service* (various years).

New refugees and state of initial resettlement: U.S. Department of Health and Human Services, Office of Refugee Resettlement, *Report to the Congress* (various years).

Total population and Medicaid data: U.S. Bureau of the Census, *Statistical Abstract* (various years).

Foreign-born population shares in 1980: U.S. Bureau of the Census, *1980 Census of Population, Detailed Population Characteristics* (1980).

Foreign-born population shares in 1990: U.S. Bureau of the Census publication *1990 Census of Population, Social and Economic Characteristics: United States* (1990).

Unemployment rate and wage data: U.S. Bureau of Labor Statistics, *Employment and Earnings* (various years).

Income tax rate data: Advisory Commission on Intergovernmental Relations, *Significant Features of Fiscal Federalism* (various years).

AFDC, food stamps, and SSI benefits data: U.S. House of Representatives Ways and Means Committee, *Background Material and Data on Major Programs within the Jurisdiction of Committee on Ways and Means* (various years).

## REFERENCES

- Bartel, A. P. (1989). "Where Do the New United States Immigrants Live?" *Journal of Labor Economics*, 7 (October): 371-91.
- Bartel, A. P., and M. J. Koch (1991). "Internal Migration of U.S. Immigrants." In *Immigration, Trade, and the Labor Market*. Edited by J. M. Abowd and R. B. Freeman. Chicago: University of Chicago Press. Pp. 121-134.
- Belanger, A., and A. Rogers (1992). "The Internal Migration and Spatial Redistribution of the Foreign-Born Population in the United States: 1965-1970 and 1975-1980." *International Migration Review* 26 (Winter): 1342-1369.
- Borjas, G. J. (1994). "The Economics of Immigration." *Journal of Economic Literature* 32 (December): 1667-1717.
- Buckley, F. H. (1996). "The Political Economy of Immigration Policies." *International Review of Law and Economics* 16 (March): 81-99.
- Dunlevy, J. A. (1991). "On the Settlement Patterns of Recent Caribbean and Latin Immigrants to the United States." *Growth and Change* 22 (Winter): 54-67.
- Filer, R. K. (1992). "The Effect of Immigrant Arrivals on Migratory Patterns of Native Workers." In *Immigration and the Work Force*. Edited by G. J. Borjas and R. B. Freeman. Chicago: University of Chicago Press. Pp. 245-269.
- Jasso, G., and M. R. Rosenzweig (1990). *The New Chosen People: Immigrants in the United States*. New York: Russell Sage Foundation.
- Kritz, M. M., and J. M. Nogle (1994). "Nativity Concentration and Internal Migration among the Foreign-Born." *Demography* 31(August): 509-524.
- Neuman, K. E., and M. Tienda (1994). "The Settlement and Secondary Migration Patterns of Legalized Immigrants: Insights from Administrative Records." In *Immigration and Ethnicity*. Edited by B. Edmonston and J. S. Passel. Washington, D.C.: Urban Institute Press. Pp. 187-226.
- Smith, L. (1996). "Letter to the Editor: Magnets for Immigration." *Washington Post* 26 October, p. 22.
- Zimmerman, W., and M. Fix (1994). "Immigrant Policy in the States: A Wavering Welcome." In *Immigration and Ethnicity*. Edited by B. Edmonston and J. S. Passel. Washington, D.C.: Urban Institute Press. Pp. 287-316.

**TABLE 1**  
**DISTRIBUTION OF IMMIGRANTS ACROSS MAJOR STATES AND TOTAL NUMBER,**  
**BY ADMISSION CATEGORY, 1989-1994**

Admission Category	Percentage of Total Settling in State						Total
	CA	NY	TX	FL	IL	NJ	
All New Legal Permanent Residents	37.5	13.4	9.8	6.2	5.0	4.1	7,137,259
Family-Sponsored	25.7	20.2	7.6	6.7	4.9	6.2	2,726,194
Employment-Based	27.5	15.9	5.2	4.5	3.4	8.0	561,959
IRCA Legalization	53.3	5.4	15.1	5.3	5.4	1.5	2,675,990
Refugee/Asylee Conversions	33.1	13.6	3.5	10.6	3.6	2.2	686,545
New Refugees	26.4	19.3	4.0	4.5	3.9	2.2	653,516

Sources: Immigration and Naturalization Service and U.S. Department of Health and Human Services, Office of Refugee Resettlement.

Note: The category all new legal permanent residents includes all of the other categories except new refugees.



**TABLE 2**  
**DETERMINANTS OF IMMIGRANTS' LOCATIONAL CHOICES, BY ADMISSION CATEGORY**

	All New Legal Permanent Residents	Family	Employment	IRCA	Refugee/Asylee Conversions	New Refugees
Total Population	1.004 (.050)	.839 (.039)	1.099 (.062)	1.201 (.159)	1.324 (.131)	1.289 (.151)
Foreign-Born Population Share	1.092 (.076)	1.151 (.060)	.746 (.079)	1.554 (.186)	.620 (.166)	.512 (.166)
Unemployment Rate	-.199 (.201)	-.141 (.075)	-.722 (.173)	-.091 (.319)	-.492 (.431)	-.670 (.349)
Manufacturing Wage	-.044 (.361)	.435 (.335)	2.618 (.593)	-3.445 (1.107)	-.994 (1.016)	-.016 (.947)
Difference between Highest And Lowest Tax Rates	-.004 (.010)	.005 (.008)	.039 (.015)	-.013 (.034)	-.052 (.023)	-.029 (.023)
AFDC and Food Stamps Benefits	.107 (.296)	-.031 (.276)	-.002 (.379)	-.365 (.986)	2.025 (.771)	1.852 (.787)
F-Test Statistic	5255.65	2031.46	772.92	652.57	97.37	53.35
[p-value]	[.000]	[.000]	[.000]	[.000]	[.000]	[.000]

Notes: Dependent variable is (log) number of immigrants settling in a state. The category all new legal permanent residents includes all of the other categories except new refugees. Regressions include a constant, 5 year fixed effects, and 8 region fixed effects. Observations are weighted using total state population. Foreign-born population share is instrumented using the fraction of the state population that naturalized last year. Heteroskedasticity-corrected standard errors in parentheses. The F-test tests whether all of the coefficients are jointly equal to zero. The data cover 51 states over 1989-1994, or 306 observations.

**TABLE 3**  
**DISTRIBUTION OF NEW LEGAL PERMANENT RESIDENTS ACROSS MAJOR STATES**  
**AND TOTAL NUMBER, BY COUNTRY OF ORIGIN, 1989-1994**

Country of Origin	Percentage of Total Settling in State						Total
	CA	NY	TX	FL	IL	NJ	
China	30.4	26.1	3.9	1.7	3.6	3.6	255,582
Dominican Republic	0.3	58.6	0.2	4.7	0.2	10.5	248,901
Mexico	57.1	0.8	19.4	2.3	6.2	0.3	2,482,168
Philippines	47.1	7.5	3.1	2.6	4.8	2.8	362,400
Vietnam	40.7	3.6	8.9	2.5	1.7	1.5	320,532

Source: Immigration and Naturalization Service.

**TABLE 4**  
**DETERMINANTS OF NEW LEGAL PERMANENT RESIDENTS' LOCATIONAL CHOICES, BY COUNTRY OF ORIGIN**

	China	Dominican Republic	Mexico	Philippines	Vietnam
Total Population	1.065 (.078)	.928 (.118)	.879 (.084)	.947 (.046)	1.073 (.101)
Foreign-Born Population Share	1.007 (.072)	1.095 (.099)	1.051 (.051)	1.029 (.053)	.700 (.097)
Unemployment Rate	-.440 (.159)	-.394 (.373)	.004 (.214)	.079 (.089)	-.554 (.287)
Manufacturing Wage	-.059 (.313)	2.319 (1.056)	.596 (.575)	-.628 (.281)	1.112 (.648)
Difference between Highest And Lowest Tax Rates	-.001 (.010)	-.050 (.020)	-.005 (.012)	.003 (.008)	-.039 (.018)
AFDC and Food Stamps Benefits	-.125 (.315)	-.582 (1.244)	-.456 (.483)	.090 (.307)	-.213 (.641)
Distance	-1.214 (.960)	-.326 (.663)	-.065 (.345)	.749 (.743)	-1.065 (1.636)
F-Test Statistic [p-value]	3870.01 [.000]	240.93 [.000]	1932.63 [.000]	1852.04 [.000]	352.28 [.000]

Notes: Dependent variable is (log) number of legal permanent residents settling in a state. Regressions include a constant, 5 year fixed effects, and 8 region fixed effects. Observations are weighted using total state population. Foreign-born population share is instrumented using the fraction of the state population that naturalized last year. Heteroskedasticity-corrected standard errors in parentheses. The F-test tests whether all of the coefficients are jointly equal to zero. The data cover 51 states over 1989-1994, or 306 observations.

**APPENDIX**  
**DESCRIPTIVE CHARACTERISTICS OF INDEPENDENT VARIABLES**

Variable	Mean	Standard Deviation	Maximum	Minimum
Total Population (in thousands)	4,920.6	5,442.2	453.4	31,220.1
Foreign-Born Population Share	5.28	4.84	0.80	27.02
Unemployment Rate	5.96	1.66	2.38	11.39
Manufacturing Wage	\$8.24	0.95	6.16	11.30
Difference between Highest and Lowest Tax Rates	3.60	3.16	0.0	11.33
AFDC and Food Stamps Benefits	\$477.86	101.16	287.12	850.17
SSI and Food Stamps Benefits	\$371.28	73.65	354.04	616.08
Medicaid Payments per Beneficiary	\$2848.05	969.06	268.37	6402.99

Notes: Shown are the sample means of the independent variables. The manufacturing wage, AFDC, food stamps, SSI, and Medicaid variables are deflated using the CPI for urban consumers.