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THE IMPACT OF IMMIGRATION ON THE INTERNAL MIGRATION OF NATIVES AND IMMIGRANTS*

MARY M. KRITZ AND DOUGLAS T. GURAK

In this paper we examine the internal migratory response, by native-born non-Hispanic white men and foreign-born men in the United States, to recent immigration. Our analysis does not support the claim that natives have made a migratory response to recent immigration. Native-born men and foreign-born men were less likely to leave states that received large numbers of immigrants in the 1980s than they were to leave other states, and native-born men had less propensity toward out-migration than did foreign-born men. Out-migration was most likely to be deterred if recent immigrants originated in Europe or Asia. Although native-born non-Hispanic white men showed a tendency toward out-migration if recent immigrants originated in Latin America or the Caribbean, this result was insignificant after we controlled for state economic and regional context.

A claim often made in the literature and the media is that high levels of U.S. immigration in recent decades have fostered “demographic balkanization.” Frey (1996:760) defined this term as “spatial segmentation of population by race-ethnicity, class, and age across broad regions, states, and metropolitan areas,” and argues that it is “driven by both immigration and long-distance internal migration patterns.” This thesis is supported by Frey’s work (1995a, 1995b, 1996; Frey et al. 1996), as well as that of Filer (1992), White and Hunter (1993), and White and Liang (1994); it is based on the finding of a correlation between recent U.S. immigration and out-migration from selected metropolitan areas and/or states. A further supportive finding is that a disproportionate number of out-migrants from areas of high immigration are white and poor persons (Frey 1995b, 1996; White and Hunter 1993). From these findings it is inferred that natives are leaving areas of high immigration because of perceived economic and social costs associated with immigration, thereby moving the United States toward balkanization.

The “demographic balkanization” thesis has not gone unchallenged. On the basis of an analysis of the 100 largest metropolitan labor markets in 1975–1980 and 1985–1990, Wright, Ellis, and Reibel (1997) argued that natives are leaving metropolitan areas of high immigration for reasons other

than immigration. They also maintained that model specification and sample constraints alter the relationship between immigration and internal migration. White and Imai (1994) compared the effects of immigration to SMSAs in 1965–1970 and in 1975–1980, and found a negative but insignificant relationship between immigration and native in-migration. Ellis and Wright (1998) advanced a further argument against the balkanization thesis, namely that the expression itself conjures up negative images of immigration and implies “that ethnic diversity produces population shifts, ethnic fissions, and socio-spatial cleavages” (pp. 688–89).

Because the “balkanization” metaphor calls up negative images of immigration and thus conveys a normative position, we use a more neutral phrase in this paper, *native migratory response*, to examine whether demographic change differs between areas of high and low immigration. The main question we examine is whether the native-born and the foreign-born populations differ in their migratory response to high immigration, net of other differences in individual characteristics and residence conditions. Previous scholars of native migratory response did not consider whether the foreign-born are also leaving areas of high immigration at rates comparable to those of the native-born, if they are doing so, the implications for their conclusions. Given the size (8.9% of the total population in 1990) and diversity of the foreign-born population, analyzing the migration dynamics of this growing subgroup may help to clarify the migratory response thesis.

If natives leave areas of high immigration because of perceptions that immigrants increase the social costs of an area and because natives do not want to live in multiethnic areas, as has been claimed (Frey 1996:753–54),¹ it is reasonable to argue that the native-born and the foreign-born will differ in their migratory responses to immigration. Given that the foreign-born are significantly less likely to leave areas where persons of their own origins are concentrated (Bartel 1989; Bartel and Koch 1991; Gurak and Kritz 2000; Kritz and Nogle 1994), natives should be more likely than the foreign-born to leave areas of high immigration if there is a migratory response to immigration levels. On the other hand, if natives and the foreign-born are equally likely to leave areas of high recent immigration or if the foreign-born are more likely than natives to leave

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1. Potential social costs cited by Frey (1996) include crime, reduced services, and increased taxes. Racial and ethnic prejudice is cited but is not referenced specifically as a “white” response.

such areas, we could infer that forces other than immigration govern internal migration.

We explore these issues here by examining the out-migration patterns of foreign-born men and native-born, non-Hispanic white men in 1985–1990. We limit our analysis to men because our exploratory analyses indicated that foreign-born women are significantly less likely than foreign-born men to migrate internally within the United States and that there are interactions by sex and place of birth that also shape internal migration. Because we also explore differences in migratory response by country of origin and state of residence, we would be addressing too many dimensions if we examined sex differences as well. Moreover, by limiting the analysis to men, we increase comparability with other studies because that has been the practice in most of the literature. We use the term *foreign-born* to refer to persons of foreign birth but not those born abroad to a U.S. citizen. In contrast, we use the term *immigrant* to refer to foreigners who migrated to the United States in the 1980s.

BACKGROUND

The theoretical expectation that increased immigration stimulates an internal migratory response by natives follows from research on local labor market impacts, which shows that immigration has modest effects, or no effect, on natives' wages and employment levels (Borjas 1994; Friedberg and Hunt 1995). In the labor market literature it is often argued that the expected negative relationship between immigration and native employment opportunities does not arise because natives leave labor markets of high immigration in order to avoid competition with immigrants. For example, according to the 1997 National Research Council report on the demographic, economic, and fiscal consequences of immigration, "Local labor markets in the United States are certainly not completely closed economies. Labor, capital, and goods flow across localities and in doing so tend to equalize the price of labor (the wage rate). As long as native workers and firms respond to the entry of immigrants by moving to areas offering better opportunities, there may be no reason to expect much of a correlation between the wage of natives and the presence of immigrants" (National Research Council 1997:225–26).

Scholars have reached no consensus on whether immigration to an area in fact leads to a significant out-migration of natives. Studies supporting the claim of a negative effect include work by Filer (1992), Frey (1995a, 1995b, 1996), Frey et al. (1996), White and Hunter (1993), and White and Liang (1993). Studies by Wright et al. (1997) and Card (1997), however, show no effects or even positive effects.

The mixed quality of the findings may be due to different methodological approaches. Although all of these studies are based on U.S. census data, they differ in their samples, variable measurement, and model specifications. Moreover, most analyses use aggregate rather than individual-level census data and measure net migration of states or metropolitan areas rather than out-migration or in-migration into those areas. A strength of aggregate analyses is that they call attention to the broader structures or trends present in different

areas; one of their weaknesses, however, is that they do not clarify individual motivations for migrating (Gardner 1981:67). Yet the native migratory response thesis centers on the idea that certain types of individuals leave areas of high immigration because of perceived economic and social costs due to immigrants. Social scientists have long known that it is an ecological fallacy (Robinson 1950) to attribute motivation to individuals based on aggregate analyses of the structure and flow dynamics in given areas. An analysis of individual-level census data and comparisons of native- with foreign-born out-migration patterns will not permit us to determine motivations, but it will allow us to evaluate the plausibility of the argument that natives are fleeing areas of high immigration.

Previous studies of migratory response differed in specifications of the population that responds to high immigration. Frey (1995a, 1995b), Frey et al. (1996), and White and Imai (1994) included all persons who were residents of the United States in 1975 or 1985; Wright et al. (1997) and Card (1997) limited their analyses to native-born workers; Filer (1992) focused on adult male workers. Scholars also have studied different geographic areas. Frey looked at immigration impacts for both states (1995b, 1996) and metropolitan areas (1995a, 1998); Wright et al. (1997) and White and Imai (1994) focused on SMSAs; and Filer (1992) examined counties that were part of an SMSA in 1975. The number of SMSA analysis units varies across studies: the 16 largest SMSAs (Frey 1998), the 64 largest SMSAs (White and Imai 1994), the 100 largest SMSAs (Wright et al. 1997), and 272 county/sub-SMSA groups (Filer 1992). All the SMSA studies include New York and Los Angeles, but Wright et al. (1997) found that these two areas of large immigrant settlement exert strong outlier effects on parameter estimates and that the expected negative effect of immigration on native migration is absent if these SMSAs are dropped from the analysis.

Scholars measure internal migration differently. Frey (1995a, 1995b), Frey et al. (1996), Wright et al. (1997), and Filer (1992) used net migration to an area as their dependent variable. White and Imai (1994) and Card (1997), however, estimated in-migration and out-migration separately and showed that the effects of immigration on either flow are modest and occur mainly on in-migration. Wright et al. (1997) discussed limitations of assessing net migration only, and argued that this measure "hides the fact that large numbers of native migrants still move to major immigrant cities" (p. 251). They illustrated this point for Los Angeles, reporting that almost as many native whites moved to that area as left it in the 1985–1990 period.

Measurement of the key explanatory variable—recent immigration to an area—also differs across studies. Whereas Frey (1995a, 1995b, 1996; Frey et al. 1996) studied the migration impact of the number of immigrants in 1985–1990, Wright et al. (1997) looked at those who arrived in the first half of the 1970s and the 1980s. In addition, Wright et al. (1997) constrained their count of recent immigrants to men who were in the labor force. Card (1997) also examined the labor force component but included women as well as men.

Wright et al. (1997) asked whether it is appropriate to use the count of recent immigrants to an area because that measure is highly correlated with the size of the SMSA's labor force. They showed, for instance, that coefficients for models estimated with a measure of change in immigrants' share of the total labor force differed from those estimated with a measure based on the count of recent immigrants in the labor force. The percentage change measure did not exert a significant effect on net migration of unskilled workers, or else it exerted an unexpected, positive effect for skilled workers in models that excluded New York and Los Angeles (also see Card 1997). In contrast, the count measure of recent immigration had the expected negative effect on net migration of unskilled workers.

We have not uncovered any studies that differentiate between the migratory responses of the foreign-born and the native-born, although there are reasons to expect such difference. Research shows that the foreign-born and the native-born differ significantly in internal migration dynamics (Bartel and Koch 1991; Belanger and Rogers 1994; Gurak and Kritz 2000; Kritz and Nogle 1994; Rogers, Henning, and Little 1995). Despite a common perception that immigrants remain in their initial settlement areas (Sassen 1995:90; Walker and Hannan 1989:174), the foreign-born actually are more likely than the native-born to migrate internally (Rogers et al. 1995). Moreover, work by Belanger and Rogers (1994), Kritz and Nogle (1994), and Gurak and Kritz (2000) indicates that migration rates are influenced by the residence context, whether this is a state or an SMSA. Belanger and Rogers (1994) found that in 1965–1970 and 1975–1980, the foreign-born registered a negative net migration flow from the Northeast and the Midwest but a positive flow to both the South and the West. Kritz and Nogle (1994) showed that foreign-born residents of New York State were more likely than natives to move to another state. Gurak and Kritz (2000) found that the foreign-born tend to concentrate in states with relatively high rates of economic growth and that they are significantly less likely than natives to leave areas of high economic growth.

DATA AND MEASUREMENT

We use data from the 5%-A state files of the 1990 Public Use Microdata Sample (PUMS). The sample is restricted to foreign-born men age 25–60; it excludes persons born abroad of American parents, persons enrolled in school at the time of the census, and foreigners who immigrated to the United States after 1985 because they were not at risk of migration in the 1985–1990 period. The final sample consists of 174,789 foreign-born men. In addition, we drew a 1/2,000 sample of native-born, non-Hispanic white men from the 1990 PUMS-A files for use as a referent group ($n = 21,383$).

Because our dependent variable measures a dichotomous outcome—whether the respondent migrated to another state between 1985 and 1990—we use logistic regression analysis. To calculate the risk of out-migration, we reallocated men back to their 1985 state of residence. We focus on migration dynamics of states rather than those of some smaller aggregate unit,

both because we consider the state to be a meaningful level of analysis (Gurak and Kritz 2000) and because the use of smaller aggregate units leads to reduced sample size for most nativity groups. Data on economic conditions of states from various sources are appended to individual records. We use a cluster correction technique (StataCorp 1999) to adjust for possible lack of independence and for the resulting standard error biases that can result from simultaneously analyzing data on individuals and on their state of residence.

For both the multivariate analysis and the descriptive tables, we use census person weights. Although census sample sizes are relatively large, we use two test levels for statistical significance (.001 and .01) because once the cluster correction is employed, there exist in effect very few independent data points (only 51) for the contextual measures.

We focus on non-Hispanic white men rather than on all native-born men because whites have been identified as the group most likely to leave areas of high immigration (Frey 1996; Frey et al. 1996). Moreover, non-Hispanic whites are the largest ethnic group and commonly are treated as the core group in studies of immigrant assimilation. Because greater social distance exists between non-Hispanic whites and non-European immigrants than between non-Hispanic whites and European immigrants, use of this native group as the referent category should increase the likelihood of finding a native migratory response. On the other hand, if no migratory response is observed, use of the group for which it should occur would provide strong evidence that no such response exists. We bring the racial and ethnic dimension into our analysis by evaluating whether the migratory response of native-born, non-Hispanic white men and of foreign-born men differs according to the recent immigrants' origin: Europe, Asia, or Latin America and the Caribbean. We also report how our findings differ when all native-born men are used as the referent group.

Our main explanatory variable, recent immigration to an area, is measured by the natural log of the raw count of immigrants to each state who immigrated to the United States in the period 1980–1990. We use the natural log of the raw count to correct for skewness. Wright et al. (1997) argue that immigration pressure should be measured in relation to immigrant growth; therefore we also calculated models that substituted the percentage of a state's 1985 population constituted by 1980s immigrants for the count measure. We observed no major difference between parameter estimates for these two sets of models; thus we use the log count measure to enhance comparability with other studies. Several factors discussed above may explain why we found no major difference between these two sets of models. Mainly, we use individual rather than aggregate data, examine out-migration rather than net migration, use the natural log of the count rather than the raw count, and employ states rather than metropolitan areas as our analysis units. We use the 1980–1990 period because it captures immigration over a sustained period and evens out distortions that might be present in measures specified for a shorter period.

The internal migration of the foreign-born population is shaped by a number of factors for which we control in the analysis: age, education, self-employment, English-language

ability, and period of immigration (Bartel and Koch 1991; Gurak and Kritz 2000; Kritz and Nogle 1994). Immigrants are more likely to migrate as their education and language ability increase; they are less likely to migrate as they age and if they are self-employed or have lived in the United States for a longer period. We control for immigration period, however, only in models specified for foreign-born men because all native-born men have a null value on this measure. We do not control for marital status because it is as likely to be a consequence of migration as to be a determinant (Sandefur and Scott 1981). We explored whether age has a curvilinear relationship to migration and determined that the relationship is negative and linear for men age 25–60. Thus we measure age as a continuous variable. (See Appendix Table A1 for details on variable measurement and summary sample statistics for native-born and foreign-born men.)

We also control for several aggregate characteristics of states. Previous studies of native migratory response suggested associations with a number of structural conditions of states or metropolitan areas, including population size, geographic area, employment growth, levels of unemployment, industrial composition of the labor force, ethnic composition, mean family income, rent costs, climate, poverty, and welfare levels. We examine four factors in our analysis: employment growth in 1980–1990, unemployment in 1985, mean per capita income in 1985, and the percentage of the labor force in manufacturing, services, or finance in 1980.

We use different reference dates for the state context measures for a variety of reasons. Employment growth is measured for the full decade because we believe that the longer-term situation is most important. Sector of employment is measured for 1980 both because there is little reason

to expect short-term fluctuations in these measures and because figures for a census year are likely to be the most reliable. Income and unemployment are measured for 1985 because these data, especially unemployment, vary over time and because 1985 is the point closest to the risk period for migration. One might question the suitability of these rationales, but our exploration of alternative specifications revealed no change in the pattern of findings. Finally, we use dummy variables for 1985 region of analysis in our models: Midwest, Northeast, South, and West. (See Appendix Table A1 for measurement of variables.)

STATE DIFFERENCES IN NATIVES' AND IMMIGRANTS' OUT-MIGRATION

The migratory response thesis leads us to expect that native-born men would be more likely than foreign-born men to leave states that are experiencing high immigration. To make an initial assessment of differences in rates for the two groups, we calculated age-standardized out-migration rates for foreign-born and native-born men for the 10 states with the largest foreign-born populations in 1990 (see Table 1). We also calculated the age-standardized rates for foreign-born men of six different origins, based on regional, racial, and/or ethnic commonalities. We left Mexican men as a separate group because they constitute 20% of all foreign-born persons and thus provide enough cases to be examined alone. The European-origin group includes all men born in Europe, as well as those born in Canada, Australia, and New Zealand (called "Europeans" here); the non-Hispanic Caribbean and African group is composed largely of men from the English-speaking Caribbean (such as Jamaica, Guyana, and Trinidad) but also includes Haitians, other Caribbeans, and Africans

TABLE 1. AGE-STANDARDIZED OUT-MIGRATION RATES OF FOREIGN-BORN MEN AND NATIVE-BORN, NON-HISPANIC WHITE MEN FROM THE 10 STATES WITH THE LARGEST FOREIGN-BORN POPULATIONS, 1990

State	% of All Foreign-Born Men Living in State in 1985	Native, Non-Hispanic White Men	Foreign-Born Men	Region or Country of Origin, Foreign-Born Men					
				Europe, Canada, Australia, New Zealand	Non-Hispanic Caribbean, Africa	Mexico	Other Latin America	Asia	Other Foreign-Born
California	35.1	8.9	3.3	5.9	8.2	2.1	4.7	3.5	3.1
New York	13.8	7.9	11.1	9.1	12.2	9.4	11.6	14.1	9.3
Florida	7.1	10.7	6.4	9.4	4.7	17.1	4.1	15.0	6.0
Texas	8.6	12.3	10.7	21.6	24.2	5.6	17.9	22.6	10.0
New Jersey	4.8	7.7	10.0	6.9	11.5	12.1	13.7	11.4	9.1
Illinois	5.4	7.7	9.9	7.6	13.5	6.0	16.6	16.5	11.2
Massachusetts	2.7	6.5	10.4	7.3	10.1	16.6	17.2	15.8	12.9
Michigan	1.8	5.1	11.8	7.7	14.7	12.7	23.7	14.9	18.2
Pennsylvania	1.7	7.0	18.6	12.6	24.1	21.8	21.5	26.5	12.2
Washington	1.5	7.7	11.6	10.3	20.9	10.0	32.2	12.6	11.4
Other States	17.6	10.4	18.6	15.2	21.0	12.9	22.2	23.0	21.0
Total U.S.	100.0	9.5	9.1	10.3	13.1	4.4	9.9	12.4	8.9
Sample Size	174,789	21,383	174,789	43,020	10,721	45,123	26,135	43,140	6,650

because of their common racial heritage (called “Caribbeans/Africans”); the “other Latin America” category includes men from the Spanish-speaking Caribbean (Cuba and the Dominican Republic) and Central/South America, as well as Brazil (called “Latin Americans”); the Asia and Pacific group includes men born in any Asian country or the Pacific area (called “Asians”); and the “other” foreign-born group includes men whose origins do not belong to one of the other categories, largely because they did not specify their country of origin in the census (called “others”).

The age-standardized out-migration rates presented in Table 1 show no national-level difference between foreign-born and native-born men: their standardized rates are 9.1 and 9.5 respectively. We find considerable variation, however, by 1985 state of residence and foreign-born origin. For three states—California, Florida, and Texas—we observe the expected pattern, namely that native-born men are more likely to leave than foreign-born men. Elsewhere, foreign-born men are considerably more likely to out-migrate than native-born men. Indeed, 18.6% of foreign-born men left Pennsylvania in the second half of the 1980s, compared with only 7% of native men. In New York State, 11.1% of foreign-born men out-migrated, compared with 7.9% of native-born men. Similar patterns occur in other northeastern and mid-Atlantic states (Massachusetts and New Jersey); this finding suggests the presence of a regional dynamic that channels foreign-born men out of the Northeast even as large numbers of new immigrants arrive.

The origin of foreign-born men is an important factor in shaping out-migration propensity. Whereas 12.4% of Asian men and 13.1% of Caribbean/African men left their state of residence in the 1985–1990 period, only 4.4% of Mexican men out-migrated. Whether foreign-born men of a given origin migrated, however, depended largely on their 1985 state of residence. Only 3.1% of Asian men migrated if they lived in California, but 21.0% migrated if they lived in other states. If Mexican men lived in California in 1985, only 2.1% migrated; if they lived in Pennsylvania, 21.8% migrated. All of the origin groups except Caribbeans/Africans and other Latin Americans were least likely to migrate if they lived in California; three of the groups (Caribbeans/Africans, Mexicans, and Asians) were most likely to migrate if they lived in Pennsylvania. Latin American men, in contrast, were most likely to migrate if they lived in Washington State. The differences across origin groups and states regarding out-migration rates suggest that different sorting mechanisms underlie immigrants’ migratory responses to their residence context.

SOURCES OF DIFFERENCES BETWEEN NATIVES AND FOREIGNERS IN INTERSTATE MIGRATION

Because differences in groups’ migration propensities can stem from individuals’ life cycle and socioeconomic characteristics as well as from structural factors associated with origin and residence contexts, we next employ multivariate analysis techniques to examine more systematically whether native men are more likely than foreign-born men to leave states with high recent immigration. In Table 2, Model 1, we

TABLE 2. LOGISTIC REGRESSIONS OF OUT-MIGRATION ON IMMIGRATION CHARACTERISTICS, INDIVIDUAL CHARACTERISTICS, AND STATE ECONOMIC CONDITIONS AND LOCATION FOR 1985 STATE OF RESIDENCE, FOREIGN-BORN AND NATIVE-BORN, NON-HISPANIC WHITE MEN, 1985–1990

	Model 1	Model 2	Model 3
Log _e Immigrants	−0.33*** (0.005)	−0.32*** (0.056)	−0.29*** (0.036)
Foreign-Born Status	0.38*** (0.029)	0.45*** (0.093)	0.42*** (0.105)
Men’s Individual Characteristics			
Age		−0.04*** (0.004)	−0.04*** (0.003)
Less than high school		—	—
High school graduate		0.21** (0.077)	0.19 (0.079)
Some college		0.48*** (0.043)	0.47*** (0.055)
College graduate		0.99*** (0.600)	0.98*** (0.074)
Speaks English		0.04 (0.046)	0.03 (0.046)
Self-employed		−0.34*** (0.069)	−0.35*** (0.069)
State Context			
Per capita personal income			0.04 (0.027)
% unemployed			−0.01 (0.031)
% employment growth			−0.01 (0.006)
% manufacturing			−0.04** (0.011)
% services			−0.01 (0.008)
% finance			0.09 (0.040)
West			—
Midwest			−0.12 (0.140)
Northeast			0.04 (0.151)
South			0.29** (0.101)
Log-Likelihood	−58,713.31	−56,219.24	−55,647.62
Wald Chi-Square	4,335.75***	938.76***	4,997.03***
Log-Likelihood Test Chi-Square vs. Saturated Model ^a	1,447.53***	4,951.89***	1,143.25***

Note: Numbers in parentheses are standard errors.

^aSpecific sets of covariates are tested against saturated model (Model 3). For Model 1, the two immigration covariates are tested; for Model 2, individual characteristics are tested; and for Model 3, state context covariates are tested.

** $p < .01$; *** $p < .001$

include only two covariates: the natural log of the number of recent immigrants living in the respondent's 1985 state of residence who entered the country in 1980–1990, and a dummy variable for nativity status (1 = foreign-born). This model tells us that men were less likely to leave states experiencing a high level of immigration in the 1980s; if they left, however, foreign-born men were more likely to do so than native-born men.

In Model 2 we control for men's individual characteristics and find essentially no change in these relationships. Moreover, men's individual characteristics have the expected relationships to migration: migration decreases with age, increases with education, is lower for the self-employed, and is not significantly influenced by English-language fluency.

The inclusion of state economic conditions and region in Model 3 does not significantly alter the relationships between recent immigration and foreign-born status, on the one hand, and out-migration, on the other. Controlling for state context also does not alter the relationships between out-migration and men's individual characteristics. Although the relationships between state context and out-migration are largely in the expected direction, they tend to be insignificant and not substantively important. Only two state context measures are statistically significant: percentage manufacturing and South. Men who lived, in 1985, in states with higher percentages of the labor force in manufacturing were less likely to out-migrate; those who lived in the South were more likely to do so. The modest results for the state context measures certainly stem from the small number of analysis units (only 51) for those measures.

The last row of Table 2 shows the log-likelihood test scores for dimensions examined in Models 1 through 3, with Model 3 treated as the saturated model. The test for Model 1 evaluates the importance of recent immigration and nativity statuses; the test for Model 2 evaluates the importance of individual characteristics; the test for Model 3 evaluates the importance of state context. We estimate the log-likelihood tests in Stata by dropping the covariates being tested from the model and contrasting the resulting model with the fully saturated model (Model 3). The test scores indicate that men's demographic and social characteristics are the most important sources of differences in migration propensities, followed by the two immigration variables included in the first model, namely the log counts of the number of recent immigrants to a state and foreign-born status. A state's economy and location also exert a highly significant effect on migration propensities despite the small number of significant coefficients.

To evaluate whether recent immigrants' origins differentially influence foreign-born and native-born men's propensity to migrate, we reestimated Table 2 models separately for foreign-born men and for native-born, non-Hispanic white men, substituting three region-of-origin count variables for the total count measure of recent immigration in the 1980s (Table 3). We transform those measures into their natural logs to minimize skewness. Recent immigrants are disaggregated into three origin groups: Europe, Asia, and Latin America (LA)/Caribbean. If a native migratory re-

sponse is present, we expect to find that native-born, non-Hispanic white men were more likely to leave states receiving large numbers of recent migrants from Latin America and the Caribbean, and less likely to leave states receiving large numbers of European migrants.

This expectation is supported by Model 1, Table 3. In the 1980s, native non-Hispanic white men were significantly less likely to leave states that received large numbers of European migrants and more likely to leave states that received large numbers of immigrants from Latin America and the Caribbean. Controlling for individual characteristics in Model 2 did not change those relationships. Controlling for state context in Model 3, however, reduced by almost half the migratory response of native-born men to recent immigration from Latin America and the Caribbean, and resulted in an insignificant but still positive coefficient.

Overall our findings in Models 1–3 provide weak support for the native migratory response thesis. Native-born, non-Hispanic white men tended somewhat to leave states that received large numbers of Latin American and Caribbean immigrants. The results of Model 3, however, urge caution in accepting the conclusion of a native response because our findings suggest that it may result from a coincidence of immigration trends with other, unmeasured state context conditions. In any case, our analysis also demonstrates that insofar as there is a native migratory response to immigration, it does not occur in response to Asian or European immigration.

Among foreign-born men, we find a different response to recent immigration (Models 4–6). At the zero-order level, foreign-born men show no migratory response to recent immigration from Europe or Latin America and the Caribbean, but the coefficient for Asian immigration in the 1980s approaches significance (.05 level) and is negative. Although the relationship of out-migration to Asian immigration holds up after we control for individual characteristics in Model 5, it is not significant; it weakens after we control for state context in Model 6. The only significant state context measure for foreign-born men is employment growth in the 1980s: if a state experienced strong employment growth in the 1980s, foreign-born men were less likely to leave that state. In contrast, employment growth was not a significant determinant of out-migration for native-born men. The inclusion of state context measures in Model 6 produced one other alteration: foreign-born men, net of differences in 1985 state residence contexts, were significantly less likely to leave states with high recent European immigration.

Because foreign-born men appear to be responsive to state economic conditions and region of residence, we reasoned that an unmeasured component of state differences may stem from the differential foreign-born composition of states. All else being equal, we would expect foreign-born men to be less likely to leave states that received large numbers of immigrants of their own regional origins. To evaluate whether that is the case, we estimated separate models for the six foreign-born groups specified in Table 1, in which we controlled for foreign-born men's individual characteristics, state residence context, and recent immigrants' regional origins.

TABLE 3. LOGISTIC REGRESSIONS OF STATE OUT-MIGRATION ON RECENT IMMIGRATION FROM DIFFERENT REGIONS, MEN'S INDIVIDUAL CHARACTERISTICS, AND STATE ECONOMIC CONDITIONS AND LOCATION FOR FOREIGN-BORN AND NATIVE-BORN, NON-HISPANIC WHITE MEN, 1985–1990

	Native Non-Hispanic White Men			Foreign-Born Men		
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Recent Immigration to 1985						
State of Residence						
Log _n European	-0.27*** (0.067)	-0.31*** (0.063)	-0.38*** (0.080)	-0.04 (0.174)	0.001 (0.170)	-0.30*** (0.094)
Log _n Asian	-0.13 (0.077)	-0.13 (0.076)	-0.01 (0.077)	-0.26 (0.133)	-0.32 (0.127)	-0.18 (0.077)
Log _n LA/Caribbean	0.22*** (0.042)	0.23*** (0.041)	0.12 (0.059)	-0.06 (0.084)	-0.04 (0.093)	0.09 (0.051)
Men's Individual Characteristics						
Age		-0.05*** (0.003)	-0.05*** (0.003)		-0.04*** (0.003)	-0.04*** (0.003)
Less than high school		—	—		—	—
High school graduate		-0.003 (0.010)	-0.02 (0.096)		0.25*** (0.078)	0.25** (0.081)
Some college		0.39*** (0.101)	0.36*** (0.100)		0.49*** (0.059)	0.51*** (0.063)
College graduate		0.98*** (0.129)	0.95*** (0.127)		0.996*** (0.081)	0.99*** (0.086)
Speaks English		0.51 (0.341)	0.54 (0.336)		0.06 (0.035)	0.07 (0.037)
Self-employed		-0.63*** (0.083)	-0.65*** (0.084)		-0.31*** (0.076)	-0.31*** (0.074)
Immigrated before 1965		—	—		—	—
Immigrated 1965–1974		—	—		0.01 (0.065)	0.00 (0.066)
Immigrated 1975–1984		—	—		0.24** (0.085)	0.23** (0.087)
State Context						
Per capita personal income			0.03 (0.023)			0.02 (0.031)
% unemployed			0.04 (0.024)			-0.01 (0.031)
% employment growth			0.00 (0.004)			-0.02*** (0.005)
% manufacturing			-0.02 (0.009)			-0.03 (0.013)
% services			0.00 (0.008)			-0.01 (0.009)
% finance			0.12** (0.040)			0.05 (0.045)
West			—			—
Midwest			-0.28 (0.171)			0.09 (0.166)
Northeast			-0.09 (0.188)			0.34 (0.211)
South			-0.14 (0.103)			0.24 (0.098)
Log-Likelihood	-7,203.53	-6,815.73	-6,779.68	-51,322.34	-49,073.07	48,562.77
Wald Chi-Square	44.0***	353.64***	722.41***	46.75***	2,447.57***	10,213.57***

Note: Numbers in parentheses are standard errors.

** $p < .01$; *** $p < .001$

These models, shown in Table 4, indicate a reduced out-migration propensity for the three origin groups for which we have a closely corresponding count measure of recent immigration: European men (Model 1), Mexican men (Model 3), and Asian men (Model 5). European men were significantly less likely to leave states that received large numbers of Europeans in the 1980s; Asian men were significantly less likely to leave states that received large numbers of recent Asian immigrants; and Mexican men were significantly less likely to leave states with high immigration from Latin America and the Caribbean (Mexican men constitute over half of that

group). Three other apparent effects of specific forms of recent immigration are interesting as well: Mexican men were significantly more likely to leave states with high European immigration, and European and Asian men were significantly more likely to leave states with high immigration from Latin America and the Caribbean.

Some of the relationships for individual and state context measures differ for foreign-born men of different origins. For instance, 1985 region of residence significantly influences out-migration for Asian men—they were more likely to leave the Midwest, the Northeast, and the South

TABLE 4. LOGISTIC REGRESSION OF OUT-MIGRATION ON RECENT IMMIGRATION FROM DIFFERENT WORLD REGIONS, MEN'S INDIVIDUAL CHARACTERISTICS, AND STATE ECONOMIC CONDITIONS AND REGIONAL LOCATION FOR SIX FOREIGN-BORN ORIGIN CATEGORIES, 1985–1990

	Region or Country of Origin, Foreign-Born Men					
	Europe, Canada, Australia, New Zealand Model 1	Non-Hispanic Caribbean, Africa Model 2	Mexico Model 3	Other Latin America Model 4	Asia Pacific Model 5	Other Foreign-Born Model 6
Recent Immigration						
Log _n Europe	-0.51*** (0.107)	-0.60** (0.210)	0.69*** (0.175)	-0.45 (0.271)	-0.19 (0.111)	-0.29 (0.141)
Log _n Asia	-0.01 (0.066)	0.11 (0.142)	-0.28 (0.112)	0.11 (0.141)	-0.55*** (0.080)	-0.25** (0.091)
Log _n LA/Caribbean	0.19*** (0.056)	0.17 (0.118)	-0.64*** (0.077)	-0.04 (0.157)	0.24*** (0.052)	0.06 (0.077)
Individual Characteristics						
Age	-0.04*** (0.003)	-0.04*** (0.006)	-0.03*** (0.004)	-0.03*** (0.006)	-0.05*** (0.002)	-0.03** (0.009)
Less than high school	—	—	—	—	—	—
High school graduate	0.26** (0.091)	0.16 (0.118)	0.06 (0.107)	0.19 (0.123)	0.04 (0.087)	0.01 (0.176)
Some college	0.62*** (0.110)	0.39*** (0.101)	0.34*** (0.062)	0.24 (0.110)	0.11 (0.114)	0.33 (0.140)
College graduate	1.09*** (0.123)	0.57*** (0.119)	0.87*** (0.080)	0.53*** (0.117)	0.63*** (0.130)	0.57*** (0.144)
Speaks English	0.38*** (0.077)	0.06 (0.198)	-0.12 (0.053)	0.02 (0.092)	0.02 (0.050)	0.23 (0.090)
Self-employed	-0.40*** (0.108)	-0.26 (0.135)	-0.33 (0.171)	-0.18 (0.130)	-0.38*** (0.067)	0.10 (0.125)
Immigrated before 1965	—	—	—	—	—	—
Immigrated 1965–1974	0.05 (0.049)	-0.03 (0.076)	-0.11 (0.194)	-0.14 (0.064)	0.00 (0.093)	0.09 (0.116)
Immigrated 1975–1984	0.32*** (0.070)	0.05 (0.095)	0.05 (0.133)	-0.11 (0.115)	0.24 (0.144)	0.20 (0.121)
State Context						
Per capita income	0.01 (0.026)	0.004 (0.040)	-0.09 (0.035)	0.08 (0.054)	-0.03 (0.028)	0.05 (0.040)
% unemployed	-0.06 (0.029)	0.00 (0.067)	-0.02 (0.061)	-0.03 (0.076)	-0.03 (0.030)	-0.05 (0.060)
% employment growth	-0.02*** (0.005)	-0.03** (0.011)	-0.003 (0.007)	-0.03** (0.012)	-0.02** (0.005)	-0.02** (0.008)

(continued)

(Table 4, continued)

	Region or Country of Origin, Foreign-Born Men					
	Europe, Canada, Australia, New Zealand Model 1	Non-Hispanic Caribbean, Africa Model 2	Mexico Model 3	Other Latin America Model 4	Asia Pacific Model 5	Other Foreign-Born Model 6
% manufacturing	-0.04** (0.011)	-0.02 (0.017)	-0.08*** (0.017)	-0.02 (0.023)	-0.04*** (0.010)	-0.01 (0.018)
% services	-0.01 (0.007)	-0.01 (0.011)	0.003 (0.011)	-0.03 (0.014)	-0.01 (0.007)	-0.01 (0.012)
% finance	0.06 (0.034)	-0.01 (0.046)	0.13 (0.078)	0.04 (0.064)	0.08 (0.037)	-0.02 (0.060)
West	—	—	—	—	—	—
Midwest	0.04 (0.163)	-0.01 (0.372)	-0.17 (0.223)	-0.15 (0.362)	0.59*** (0.166)	0.10 (0.224)
Northeast	0.28 (0.214)	0.24 (0.492)	0.12 (0.231)	-0.05 (0.433)	0.60** (0.229)	-0.02 (0.305)
South	0.24 (0.115)	0.10 (0.259)	0.73*** (0.133)	-0.07 (0.243)	0.41*** (0.116)	0.12 (0.153)
Log-Likelihood	-11,907.58	-3,772.03	-7,896.68	-7,815.38	-13,976.04	-2,030.53
Wald Chi-Square	1,850.93***	1,052.05***	6,848.90***	3,389.11***	7,364.89***	1,495.22***
Sample Size	43,020	10,721	45,123	26,135	43,140	7,118

Note: Numbers in parentheses are standard errors.

** $p < .01$; *** $p < .001$

than the West—but was not an important correlate of out-migration for most of the other groups. In addition, all origin groups except Mexican men were significantly less likely to leave states with higher rates of employment growth in the 1980s or to leave states with higher manufacturing employment, although this relationship is significant only for European, Mexican, and Asian men. Although a college education significantly increases the risk of out-migration for all origin groups, we found no significant out-migration difference between high school graduates and men with less education except among European men. Language fluency was positively associated with European men's out-migration but negatively related to that of Mexican men. In the two groups with the highest self-employment rates, European and Asian men, self-employment exerted a significant deterrent effect.

IS THERE A DIFFERENTIAL MIGRATION RESPONSE BY STATE?

Our analysis thus far has provided little support for the general thesis that non-Hispanic white men respond to high migration by leaving their state of residence. Yet we have uncovered some limited support for this thesis in that native-born, non-Hispanic white men were more likely to leave states that received large numbers of immigrants from Latin America and the Caribbean in the 1980s. A similar pattern holds among European immigrants, although this relationship is fairly weak when state context is taken into consideration. Insofar as recent immigrants from other regions influenced natives' migratory behavior, the influence was in an unexpected direction. In particular, recent immigration from

Asia or Europe is associated with a reduced likelihood of out-migration by natives. Given these findings, as well as the diversity of state out-migration patterns and the less-than-perfect quality of our measures of state contexts, we must examine the state context more closely.

One could argue that it would be more appropriate to seek a migratory response within states than across states. In other words, population size, immigration flows, nativity origins, and other unmeasured structural conditions may be too heterogeneous across states to reveal the expected positive relationship between recent immigration and out-migration at the state level.

To explore whether a positive relationship exists when we examine recent immigration and out-migration dynamics for specific states, we estimated separate regression models for the 10 states with the highest volume of immigration in the 1980s. We wished to assess whether foreign-born men as a whole and those from the six origin regions identified above are more likely than native-born men to migrate, net of their individual characteristics. In Table 5, which reports our findings for the state models, we present the regression coefficients as odds ratios in order to facilitate comparisons across states and origin groups. In that table we display only the odds ratios for the pertinent foreign-born group, although we estimated each model with controls for age, education, English-language ability, and self-employment.

Net of men's demographic and social characteristics, Table 5 shows that the expected finding of increased odds of out-migration exists only for California and Florida. In those two states, foreign-born men were respectively 57% and 35%

TABLE 5. ODDS OF OUT-MIGRATION FOR FOREIGN-BORN MEN VERSUS NATIVE-BORN, NON-HISPANIC WHITE MEN IN THE 10 STATES WITH THE LARGEST FOREIGN-BORN POPULATIONS, NET OF INDIVIDUAL DEMOGRAPHIC AND SOCIAL CHARACTERISTICS, 1985–1990^a

State	Foreign-Born Men, by Region/Country of Origin							
	A Total Foreign- Born Men	B Europe, Canada, Australia, New Zealand	C Non-Hispanic Caribbean, Africa	D Mexico	E Other Latin America	F Asia	G Other Foreign-Born	H Sample Size
California	0.43***	0.69***	0.84	0.28***	0.56***	0.39***	0.38***	65,564
New York	1.24	1.09	1.31	1.48	1.50***	1.67***	1.01	23,548
Florida	0.65***	0.90	0.49***	1.49	0.41***	1.60**	0.61	13,831
Texas	1.25	1.91***	1.94***	0.50***	1.57***	1.79***	0.91	16,795
New Jersey	1.35	0.92	1.44	1.45	2.03***	1.42	1.37	9,477
Illinois	1.24	0.91	1.57	0.71	1.96***	1.79***	1.39	9,762
Massachusetts	1.87***	1.32	1.39	4.28**	3.26***	2.29***	2.94***	5,515
Michigan	1.58**	1.19	1.80	3.72***	3.08***	1.81**	2.72**	3,598
Pennsylvania	1.96***	1.37	2.43***	3.57***	2.22***	2.79***	1.19	3,779
Washington	1.71**	1.41	3.22**	1.72	4.69***	1.71**	1.67	3,080
Other States	1.73***	1.32***	1.69***	1.45***	2.23***	2.03***	2.48***	41,223

^aFor each row (state or state group), two models are estimated. In the first model (col. A), the migration experience of all foreign-born men, considered as a single category, is contrasted with that of native-born, non-Hispanic white men. In the second set of models (cols. B–G), the foreign-born category is subdivided into six origin categories; the migration experience of each of these is contrasted to that of native-born, non-Hispanic white men. Only the coefficients for the foreign and native contrasts are shown here, though the underlying models include the same measures of individual characteristics variables as used in Table 2 (age, education, English language, and self-employment status). Immigration period is not used because natives do not have a value on that measure. Odds ratios are shown because all coefficients presented have the same dichotomous metric.

** $p < .01$; *** $p < .001$

less likely than native-born men to out-migrate in 1985–1990. In two other states, New Jersey and Illinois, we found no significant difference between native-born and foreign-born men in migration propensities. In the six remaining states, foreign-born men were more likely to leave than native-born men, net of individual characteristics.

The odds ratios for the six origin groups indicate that the overall patterns are shaped by differential sorting. Asian men, for instance, were significantly more likely than native men to leave every state except California, whereas “other” Latin Americans were significantly more likely than native men to leave every state except California and Florida. Because the Latin American group includes large numbers of Central Americans as well as Dominicans, Cubans, and Colombians, this result is consistent with other findings, which show that immigrants are less likely to leave states where their compatriots live (Kritz and Nogle 1994). We suspect that the California pattern reflects Central Americans’ preferences, whereas the pattern for Florida is based on those of Hispanic Caribbeans. The latter interpretation is consistent given that Caribbean/African men, most of whom originate in the Caribbean, were significantly less likely than native men to leave Florida but more likely to leave New York, Washington, Pennsylvania, Texas, and other states. European men tended to be more similar to native-born men in their migration responses, but they differed if they lived in Texas or California.

We conducted a sensitivity analysis to learn how our results would differ if all native-born men rather than non-Hispanic white men were used as the reference group. We compared results for Tables 2, 3, and 5 for the two native-born male categories (not shown).² For Table 2, we found no change: the coefficients for the log count measure of recent immigration and for foreign-born status are nearly identical. For Table 3, we found that the reported relationship for non-Hispanic white men—that they were significantly less likely to leave states receiving large numbers of European immigrants—is not significant for all native men. We also found that the negative coefficient for Asian immigration, observed in Model 1, Table 3, is more negative and is significant for all native men but weakens in Model 3 with controls for state context. The conclusions for Table 3 would remain the same: large numbers of recent immigrants from Asia or Europe help to retain native men rather than repel them, as the native migratory response thesis holds, whereas recent immigration from Latin America and the Caribbean is associated with increased odds that native men will leave a state.

2. The comparisons are not exact because the native-born sample used for the sensitivity analysis is taken from the 1/10,000 PUMS, whereas the native-born, non-Hispanic male sample used here is a 1/2,000 sample from PUMS 5%-A. Thus the number of cases for native men differs between the two samples and may contribute to the reduction in frequency of statistical significance when all native men are used.

With controls for state context, however, these relationships became smaller and insignificant. For Table 5, the analysis for all native men showed reduced differentiation between native-born and foreign-born men, but the overall findings were quite similar for both tables. In sum, the sensitivity analysis does not call into question any of the reported findings.

DISCUSSION

Some research suggests that natives tend to be displaced or repelled by large influxes of immigrants, but our analysis indicates that the picture is more complex. We argued at the outset of this paper that if immigration leads to a migratory response by the native population, we could expect to find that native-born, non-Hispanic white men are more likely than foreign-born men to leave states with large settlements of recent immigrants.

Previous research on the migratory response thesis did not differentiate between different segments of the resident population, even though immigrants and natives differ in their migration propensities. Our analysis shows, contrary to the expectation that native-born, non-Hispanic white men would be more likely to leave states of high immigration, that actually they are less likely to leave those states than to leave states with lower immigration. Foreign-born men, on the other hand, are more likely than native-born men to leave states with high immigration. It is implausible that foreign-born men leave areas of high immigration because of recent immigrants' characteristics; therefore these findings suggest that internal migration dynamics are governed by factors other than recent immigration.

We also examined whether a migratory response emerges when the composition of recent immigration is taken into consideration. That part of our analysis shows that native-born, non-Hispanic white men tended to leave states that received large numbers of recent immigrants from Latin America and the Caribbean in the 1980s, but that relationship was no longer significant net of state context. Non-Hispanic white men were significantly less likely to leave states of high recent European immigration. Although both of these findings support the migratory response thesis, they appear to stem from the outlier effects of California and, to a lesser extent, Florida. Further analysis indicated that although foreign-born men were significantly less likely than native men to leave those two states, they are the only two states with large immigration where that relationship emerges. A number of factors other than recent immigration, which distinguish California and Florida from other states, might account for these findings.

Our analysis suggests that out-migration propensity is shaped by two very different processes: the likelihood that foreign-born men, relative to native-born men, leave given states; and the likelihood that foreign-born men of different origins, relative to other foreign-born men, leave given states. Insofar as recent immigration apparently influences those processes, the effect is present mainly when recent immigrants come from the same world region as the resident foreign-born population; in that case, it acts to retain foreign-born men of similar origins. Our findings are consistent with

other work showing that the foreign-born are less likely to leave areas where large numbers of their compatriots are concentrated. Foreign-born men from different geographic origins also differ considerably in their responses to state residence context. Foreign-born men are more likely than non-Hispanic white men to leave most states, but the size of their outflows varies by foreign origin and state of residence.

We find some evidence of differences in determinants of out-migration for foreign-born and native-born, non-Hispanic white men. For example, native men's out-migration is constrained more strongly by self-employment status, whereas foreign-born men are more sensitive to state economic conditions. Nevertheless, our analysis suggests that, in general, similar forces elicit similar migratory responses in native non-Hispanic white men and in foreign-born men.

This similarity is underscored by an analysis of net migration patterns generated from the analytical samples of men age 25–60, used in this analysis (Kritz and Gurak 1999). In 39 of the 51 states or cases, if there was a net gain in foreign-born men, there was also a net gain in native-born men; if there was a net loss of foreign-born men, there was also a net loss of native-born men. In only five states did we find that a net gain of foreign-born men was accompanied by a net loss of native men. Only one of these states, Hawaii, received relatively large numbers of immigrants in the 1980s.

The similarity of the out-migration processes across foreign-born and native-born, non-Hispanic white men was unexpected, given that the popular media and several recent studies have encouraged us to expect that a bifurcation of society into immigrant and native worlds was far advanced. In regard to the process of out-migration from states, this does not appear to be the case. Our analysis indicates that both foreign-born and native-born men tend to leave states where economic conditions are poor. Although the foreign-born remain highly concentrated in a relatively small number of states, this appears to be due more to immigrants' initial settlement choices than to the absence of out-migration.

In our analysis we do not address whether internal migration is leading to the deconcentration of foreign-born men. To clarify this issue, we calculated the index of dissimilarity between the 1985 and the 1990 distributions of states of residence for foreign-born and native-born men. Although internal migration between 1985 and 1990 decreased the index of dissimilarity from 41.5 to 40.0, this change is microscopic.

It is reasonable to expect that at least some of the findings reported here would differ if we used metropolitan areas or labor markets as the spatial units. Ultimately we must develop a comprehensive understanding of both natives' and immigrants' migration dynamics at different levels of spatial structure. Other issues also require further work: studying the migration dynamics of women as well as men and examining destination choices of natives and immigrants would expand and sharpen the picture of migration dynamics and would clarify the implications for evolving spatial differentiation. The heterogeneity of migration patterns within the broad immigrant category suggests that we have much to learn about how and why migration and location dynamics differ across nativity groups.

APPENDIX TABLE A1. MEASUREMENT AND SUMMARY STATISTICS FOR ANALYSIS VARIABLES FOR NATIVE NON-HISPANIC AND FOREIGN-BORN MEN AGE 25–60, 1990 (DATA WEIGHTED TO NATIONAL COMPOSITION)

Variable	Measure	Native-Born		Foreign-Born	
		Mean	Standard Deviation	Mean	Standard Deviation
Interstate Migration	1 = R's 1990 state of residence differs from 1985 state	0.11	0.31	0.09	0.29
Foreign-Born Status	1 = Foreign-born	0.00	0.00	1.00	0.00
Age	R's age in years (25–60)	40.20	9.90	40.40	9.69
Low Education	1 = Some high school or less (reference category)	0.14	0.35	0.39	0.49
High School Graduate	1 = High school is R's highest level of education	0.31	0.46	0.17	0.38
Some College	1 = R has some post-high school education	0.27	0.45	0.19	0.39
College Graduate	1 = R has 4-year college degree or higher	0.28	0.45	0.25	0.43
Speaks English	1 = R speaks English only or speaks English very well	0.99	0.10	0.55	0.50
Self-employed	1 = R is self-employed in 1990	0.14	0.34	0.14	0.35
Immigrated Before 1965	1 = R immigrated to U.S. before 1975 (reference category)	—	—	0.26	0.47
Immigrated 1965–1974	1 = R immigrated in 1965–1974	—	—	0.28	0.45
Immigrated 1975–1984	1 = R immigrated in 1975–1984	—	—	0.45	0.50
Log _n Immigrants	Natural log of count of immigrants to R's 1985 state of residence who arrived between 1980 and 1990	8.54	1.73	10.10	1.54
Log _n European Immigrants	Natural log of count of 1980s immigrants from Europe, Canada, Australia, and New Zealand	6.94	1.47	8.17	1.20
Log _n Asian Immigrants	Natural log of count of 1980s immigrants from any Asian country	7.38	1.56	8.81	1.58
Log _n LA/Caribbean Immigrants	Natural log of count of 1980s immigrants from any country in Latin America or the Caribbean	7.14	2.29	9.23	1.96
Per Capita Personal Income	Mean per capita personal income (\$1,000s) of R's 1985 state of residence	12.70	1.92	12.58	2.33
% Unemployed	State unemployment rate of R's 1985 state of residence, 1985	7.25	1.66	6.93	1.19
% Employment Growth	% increase in employment between 1980 and 1990 in R's 1985 state of residence	17.90	11.24	23.60	11.34
% Manufacturing	% of state labor force in manufacturing, 1980	15.20	4.03	15.10	3.53
% Services	% of state labor force in services, 1980	18.10	3.81	19.88	3.84
% Finance	% of state labor force in finance, 1980	5.01	1.36	5.83	1.42
Midwest	1 = State located in East North Central or West North Central region	0.27	0.45	0.11	0.31
Northeast	1 = State of 1985 residence located in New England or Middle Atlantic region	0.20	0.40	0.25	0.43
West	1 = State of 1985 residence located in Mountain or Pacific region (reference category)	0.19	0.39	0.42	0.49
South	1 = State of 1985 residence located in East or West South Central or South Atlantic region	0.33	0.47	0.22	0.41

Sources: State employment measures were taken from various volumes of the *Statistical Abstract of the United States*. For employment growth, the 1981 and 1991 volumes were used. The 1981 volume was also the source for employment-sector data; the 1987 volume provided data on income and unemployment.

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