

**FOREIGN-BORN OUT-MIGRATION FROM NEW DESTINATIONS:  
THE EFFECTS OF ECONOMIC CONDITIONS AND NATIVITY CONCENTRATION**

**by**

**Mary M. Kritz \***  
**Cornell University**

**and**

**Douglas T. Gurak \***  
**Cornell University**

**CES 10-09**

**April, 2010**

The research program of the Center for Economic Studies (CES) produces a wide range of economic analyses to improve the statistical programs of the U.S. Census Bureau. Many of these analyses take the form of CES research papers. The papers have not undergone the review accorded Census Bureau publications and no endorsement should be inferred. Any opinions and conclusions expressed herein are those of the author(s) and do not necessarily represent the views of the U.S. Census Bureau. All results have been reviewed to ensure that no confidential information is disclosed. Republication in whole or part must be cleared with the authors.

To obtain information about the series, see [www.ces.census.gov](http://www.ces.census.gov) or contact Cheryl Grim, Editor, Discussion Papers, U.S. Census Bureau, Center for Economic Studies 2K130B, 4600 Silver Hill Road, Washington, DC 20233, [CES.Papers.List@census.gov](mailto:CES.Papers.List@census.gov).

## Abstract

Immigrants living in new destinations in 1995 were 2.5 times more likely to undertake a labor market migration by 2000 as those living in traditional places. This paper looks at two competing explanations for immigrants' differential secondary migration, namely nativity concentration versus labor market context. Utilizing confidential Census data for 1990 and 2000, we examine out-migration from 741 labor markets that cover the entire country and develop new destination classifications specific to the growth and composition patterns of foreign-born from the largest Asian, Latin American and Caribbean foreign-born groups, and Canadians. The hypothesis guiding the analysis was that immigrants would be less likely to leave labor markets that have both robust economic conditions and high levels of compatriot affinity as measured by nativity concentration. The combined and group models provide strong support for the argument that immigrant's out-migration decisions respond both to local labor market economic conditions and compatriot availability, net of human capital and national origin.

\* Any opinions and conclusions expressed herein are those of the authors and do not necessarily represent the views of the U.S. Census Bureau. All results have been reviewed to ensure that no confidential information is disclosed. Support from NSF (ITR-0427889) for this research carried out at the New York State Census Research Data Center (NYCRDC), Cornell University, is gratefully acknowledged. We also acknowledge support from the Polson Institute for Global Development and the Russell Sage Foundation.

## Introduction

Growing recognition of the dispersion of immigrants to new destinations throughout the country has spurred recent research on the magnitude, determinants, and consequences of immigrant's changing settlement patterns (Frey and Liaw 2006; Goździak and Martin 2005; Massey 2008; Zúñiga and Hernández-León 2005). To date, researchers have examined several issues, including description of the settlement changes that have occurred (Durand et al. 2000; Funkhouser 2000; Lichter and Johnson 2006; Massey and Capoferro 2008), the characteristics of places receiving immigrants (Donato et al. 2007), the economic and social forces attracting immigrants to new destinations (Hernández-León and Zúñiga 2000; Johnson-Webb 2002), group relations between immigrants and natives in new destinations (Winders 2005) and integration processes (Bohon et al. 2005; Leach and Bean 2008). A parallel body of research focuses on shifting settlement patterns of native- and foreign-born Latinos since they constitute a large share of ethnics moving to new destinations (Fischer and Tienda 2006; Kandel and Parrado 2004; Kandel and Parrado 2005; Lichter and Johnson 2009; Millard and Chapa 2004; Parrado and Kandel 2008; Singer 2004; Suro and Singer 2002; Zúñiga and Hernández-León 2005). One question that has not been addressed in the new destination literature is whether immigrants are likely to develop settlement roots in new destinations or move on to opportunities elsewhere? This is an important question since new destinations are probably not places to which immigrants have previous community ties or where they are likely to find informal or institutional support systems comparable to those available to them in large metropolitan places. This paper addresses these issues by looking at foreign-born out-migration from new versus traditional destinations in the 1995 to 2000 period.

Although extensive research shows that immigrants' initial settlement choices are largely determined by social networks (Massey et al. 1987; Portes and Rumbaut 1990), there is less agreement about the determinants of their secondary migrations within the United States. Neo-classical economic theory posits that workers who are satisfied with their jobs and other conditions are less likely to migrate than those who perceive that the net benefits of moving outweigh the costs of doing so (Sjaastad 1962). Studies based on native-born workers support this thesis and show that labor market conditions deter out-migration, particularly high wages and employment growth (Greenwood 1985; Kuznets and Thomas 1958; Pandit and Withers 1999). However, only a few studies have looked at whether neoclassical theory holds for immigrants or native-born ethnics and those that have show mixed findings. A couple of studies have found that employment change deters out-migration (Gurak and Kritz 2000) (Frey and Liaw 2005b) (Ellis and Goodwin-White 2006). Gurak and Kritz (2000) also found that the percentage of the labor force employed in manufacturing deterred interstate migration but Ellis and Goodwin-White (2006) did not find a similar effect. Frey and Liaw (2005a) found that per capita income deterred interstate migration of Asians, Hispanics, and whites. Based on a study of 53 SMSAs, Bartel and Koch (1991) found a deterrent effect for unemployment but not for average wages or welfare assistance payments; however, others have found unemployment to be insignificant (Frey and Liaw 2005a; Gurak and Kritz 2000). Tienda and Wilson (1992) found that average SMSA wage rates increased rather than decreased out-migration for Mexican and Cuban men but that it had no effect for Puerto Ricans. The conflicting results of these studies could stem partly from their use of different spatial units, independent variables, and sample populations.

Another line of research on foreign-born secondary migrations has focused on the role of immigrant or ethnic communities in migration decisions and found that immigrants are less likely to

migrate if they live in concentrated nativity settlements (Bartel 1989; Bartel and Koch 1991; Ellis and Goodwin-White 2006; Frey and Liaw 2006; Kritz and Nogle 1994; Neuman and Tienda 1994). That body of research points to the social capital that flows within migrant networks, producing chain migrations between origin and destination communities that eventually become self sustaining as migration changes the underlying structural conditions that stimulated migration initially (Thomas and Znaniecki 1984) (MacDonald and MacDonald 1964; Massey et al. 1994). The deterrence effects found by nativity concentration studies suggest that just as social networks channel immigrants initially into established ethnic communities, they also act to deter them from leaving those communities for new destinations. Moreover, studies show that not only are immigrants deterred from leaving their concentrated ethnic communities but so too are native-born ethnics (Kobrin and Speare 1983; Tienda and Wilson 1992). While most of the nativity or ethnic concentration research has focused on secondary migration within the United States, nativity concentration has been shown to have a similar effect in Canada (Newbold and Liaw 1995; Nogle 1994) and Israel (Rebhun 2006).

Although studies indicate that absolute and relative group size constrains internal migration (Bartel and Koch 1991; Ellis and Goodwin-White 2006; Frey and Liaw 2006; Kritz and Nogle 1994), scholars have not identified what it is about nativity concentrations that discourages immigrants from moving. Explanations usually focus on the importance immigrants attach to the social resources and support systems available to them in immigrant enclaves that assist with securing jobs, housing, and community services. Portes (1993), for instance, argues that enclaves provide immigrants with economic and social capital that furthers their economic integration and socio-economic mobility. Researchers also point to the greater array of institutional resources and services available to immigrants in large metropolitan areas and how those deter migrants from moving to dispersed communities (Breton 1964). Discrimination and the difficulties faced by the “new” immigrants coming from Asia, Latin America, and elsewhere in melting into the dominant culture because of their different racial and cultural backgrounds are additional factors that may make immigrants less willing to leave their ethnic communities (Massey 1998; Portes and Zhou 1993). Boswell (2008) discusses other mechanisms through which migration may be linked to community size and norms, including the “herd” effect, which holds that individuals migrate simply because others are doing so. The “culture of migration” concept is similar – it focuses on the normative values that develop in societies with high rates of out-migration. While socio-cultural explanations cannot be evaluated with census data, it is important for researchers to gather data on group differences in socio-cultural beliefs and norms that shape migration and integration processes.

Given the relative dearth of studies on the secondary migration of immigrants and the fact that only a few studies have looked both at how those migrations are shaped by nativity concentrations and labor market conditions in origin places, the existing literature is not informative about whether economic and social contexts operate independently or interactively to deter secondary migrations. Studies that have included measures for both nativity concentration and labor market conditions suggest that the former has a stronger effect on migration than labor market conditions (Bartel and Koch 1991; Ellis and Goodwin-White 2006; Frey and Liaw 2005a; Gurak and Kritz 2000; Tienda and Wilson 1992). None of those studies, however, looked at interactions between ethnic or nativity concentration and labor market conditions. The contribution of this analysis is to examine whether and how interactions between economic and social conditions in immigrants’ residence places condition out-migration to other parts of the country.

Our research design differs from previous research in three respects. First, we are able to examine out-migration for a larger number of labor markets than previous studies because we use confidential census data from 2000 and 1990. Second, we classify labor markets as new versus traditional based on the composition and growth characteristics of immigrants from different origin countries since research shows that national origin is an important factor that differentiates immigrants' settlement and internal migration behavior (Bartel and Koch 1991; Kritz and Nogle 1994; Massey and Capoferro 2008; Newbold 1996; Scott et al. 2005). Third, we examine labor market context and foreign-born individual characteristics simultaneously as well as other context interactions in order to sort out the relative importance of economic and social determinants of secondary migration. Four specific questions are addressed: (1) does the likelihood of migration vary for those residing in new versus traditional labor markets (LM) in 1995; (2) how does LM origin group composition, growth, and size in immigrant's 1995 residence place affect the likelihood that they leave new destinations versus other types of labor markets; (3) if origin group context is important for out-migration, is this effect independent of labor market economic context or interactive with it; and (4) do national origin groups differ from each other in their migration responses to labor market economic and nativity concentration conditions?

### **Foreign-Born Out-Migration from New Destinations: Study Hypotheses**

While there has been relatively little research on why immigrants, Hispanics, or other ethnics are moving to or settling in new destinations, most of that literature stresses the importance of economic restructuring. Hirschman and Massey (2008, 8) argue that industrial restructuring in recent decades led to the loss of well-paid, unionized jobs and growth of low wage non-unionized ones that attracted foreign workers. According to their argument, growing global competition has forced employers to reduce costs and outsource jobs to labor subcontractors who, in turn, prefer to hire immigrant workers willing to work for low wages. Many of the resulting jobs are located in small metropolitan areas or nonmetropolitan areas in the South and Great Plains but some immigrants are now present in every region of the country. Massey and Capoferro (2008) document the decline of foreign-born in traditional gateway states and their growth in Southern and other interior states where relatively few immigrants were settled before the 1990s. Kandel and Parrado (2005; 2008) describe how industrial restructuring transformed agricultural and meat processing industries and attracted low-skilled immigrants to non-metropolitan areas in the Southeast and upper Midwest. Broadway and Ward (1990) found that many food processing firms relocated from the North Central region to the South to take advantage of non-unionized, low wage labor. When the supply of native workers in the South dried up, employers recruited Mexican and Central American workers.

If immigrants are moving to or settling in new destinations in search of employment opportunities not available to them in traditional destinations, then it should be expected that they will be less likely to leave those places as long as economic conditions remain strong. On the other hand, immigrants have been shown to be sensitive to the availability of other immigrants from their homelands and less likely to leave places where they have relatively large immigrant communities (Ellis and Goodwin-White 2006; Kritz and Gurak 2001). Thus while it can be argued that immigrants will be more likely to leave new destinations where only small numbers of their compatriots live, they should also be deterred from migrating if wages and employment growth are robust. Building on these ideas in the new destination, neoclassical economics and immigrant

concentration literatures, it is reasonable to expect that immigrants do not see the migration decision as an either/or choice as it has been modeled by researchers but rather seek to maximize both their economic and compatriot availability conditions in places where they live. We examine that hypothesis in this study by looking at whether immigrants are significantly less likely to leave labor markets with robust economic conditions and where they also have other settled compatriots. Previous studies only tangentially looked at this question and those that did used states as units of analysis. States, however, are large heterogeneous geographic units that contain both dynamic and stagnant labor markets and thus are not ideal contexts within which to detect economic and social interactions. Since our analysis uses a larger number of geographic units than previous studies that cover metropolitan as well as non-metropolitan areas, it measures local labor market conditions believed to underlie migration with greater precision. An assumption underlying our study is that immigrants have more informal support available to them in areas with higher nativity concentrations.

In addition to expecting out-migration to be affected by interactions between LM economic conditions and compatriot availability as measured by nativity concentration, we hypothesize that the main effect of nativity concentration observed in previous studies should diminish considerably once interactions between labor market compatriot availability and economic conditions are considered. Immigrants' decisions to migrate are also expected to be a function of their individual characteristics. Most migration studies show that age, sex, and education influence internal migration decisions - migration declines with age, women are less likely to migrate than men, and education enables migration (Greenwood 1985). Studies of immigrants have identified additional individual characteristics that influence migration - English language fluency and recent immigrant status are positive correlates of migration; immigrant concentrations deter it; and immigrants from some national origins are more likely to migrate than others (Bartel and Koch 1991; Frey and Liaw 2005a; Kritz and Nogle 1994). Since Bartel (1989) first reported an interaction between education and immigrant concentration, namely that migration depended less for more educated immigrants on their immigrant communities, others have replicated that finding (Ellis and Goodwin-White 2006) (Frey and Liaw 2005a).

We examine four specific hypotheses. Our principal hypothesis is that immigrants are less likely to leave labor markets where they have robust economic conditions and large numbers of settled compatriots. We examine that hypothesis both for a combined foreign-born sample that includes the largest Asian, Latin American and Caribbean groups, and Canadians, and for 24 separate national origin groups. Secondly, we hypothesize that the main effects of nativity concentration can be fully accounted for by taking local labor market economic and social conditions into account. Third we hypothesize that college-educated immigrants will be less likely than others to leave places where they have large numbers of compatriots but considerably more likely to leave new destinations. That expectation is based on the assumption that while the college educated are more likely to move to new destinations to take advantage of opportunities available to them in those places, they also will be more likely to leave those places because new destinations do not provide them with the ethnic amenities available in concentrated nativity settlements. Finally we hypothesize that these findings will be robust and hold up in group-specific models.

## **Defining and Measuring New Destinations**

Suro and Singer (2002) developed a methodology for defining new Hispanic destinations. They classified the 100 largest metropolitan areas into four categories, including Established Latino Metros, New Latino Destinations, Fast-Growing Latino Hubs, or Small Latino Places. Singer (2004) used a similar methodology to aggregate 45 metropolitan areas into six immigrant gateway categories. Both classifications used the composition and growth trends of the referent group of interest (Hispanics or immigrants) and others have used comparable classifications (Fischer and Tienda 2006; Lichter and Johnson 2009). Our paper draws on these methodologies but, in order to standardize for national origin diversity in settlement and dispersion trends, we developed refined growth and composition categories for 24 foreign-born groups and use a more extensive set of geographic units that span the entire country as our analysis units.

Most previous national-level studies have used states (Funkhouser 2000; Massey and Capoferro 2008), counties (Kandel and Parrado 2004; Kandel and Parrado 2005; Parrado and Kandel 2008), or Consolidated Public Use Microdata areas (Lichter and Johnson 2009). All previous studies have relied on Bureau of the Census public use files and thus have been restricted to the geographic units and sample sizes available in those files. In order to obtain greater geographic detail and a sufficient number of foreign-born cases that would allow disaggregation of the foreign-born into national origin categories, we use confidential long-form data from the 1990 and 2000 censuses. In contrast to PUMS files, the largest of which is a 5% sample of the population, long-form census data include the full 16% census microdata sample. Use of these data permits construction of local labor market units for 1990 and 2000 that have identical boundaries and that are relatively small homogeneous units. We adapted these units by building on the work of Tolbert and colleagues who developed a set of geographic units based on county commuting and economic linkages in 1990 (2006; 1996). While the larger labor markets are metropolitan area equivalents, others are small non-metropolitan areas that cover large sparsely populated territories.

The analytic sample includes non-institutionalized foreign-born adults aged 25-59 in 2000 from 23 of the larger “new” national origin groups - 11 from Latin America (Mexicans, Cubans, Salvadorans, Dominicans, Colombians, Guatemalans, Ecuadorans, Hondurans, Peruvians, Nicaraguans, and Brazilians), 9 from Asia (Filipinos, Chinese, Indians, Vietnamese, Koreans, Taiwanese, Iranians, Pakistanis, and Laotians), and 3 from the non-Hispanic Caribbean (Jamaica, Haiti, and Guyana). Canadians are included for comparative purposes and used as the reference population since they have a relatively dispersed settlement pattern and share composition characteristics similar to native-born non-Hispanic Whites. In 2000, each of the study groups had national populations of at least 200,000 and together they constituted 72 percent of the total foreign-born population. While several European and other origin countries had comparable sizes, including the former USSR, Germany, the United Kingdom, Italy, Poland and Japan, they were not included in the sample because they are traditional senders. Since the majority of immigrants now come from Asia or the Americas and some have questioned whether immigrants from the “new” origins will follow the assimilation trajectory of earlier immigrants (Huntington 2004; Massey 1995; Portes and Zhou 1993), the sample design indirectly sheds light on that discussion. In addition, Hispanic immigrants and ethnics have received disproportionate attention in the new destination literature and it is useful to compare their trends with Asians given that immigrants from the two regions differ sharply in their human capital profiles.

Immigrants from different national origins were classified as living in traditional or new destinations based on how the growth and composition characteristics of their 1995 places of residence compared to each group's national averages. To make those classifications, we first calculated each group's percentage of the national population in 1995 and then classified labor markets as being above or below that average for each group. Second, for each group, we classified the labor markets as having high or low average growth based on whether their 1990-1995 growth rates were above or below national growth averages. Then, the 741 labor markets were aggregated into four settlement categories for each group by cross classifying their high/low composition and growth categories as follows: high composition and high growth (HiC\_HiG); high composition and low growth (HiC\_LoG); low composition and high growth (LoC\_HiG); and low composition and low growth (LoC\_LoG). While the labor market compositions of these four categories vary across origin groups, most groups have large concentrations in a small number of metropolitan areas - Los Angeles, Miami, New York, and Chicago tend to show up in the HiC\_LoG category for most of the larger groups. On the other hand, the labor markets included in the LoC\_HiG and LoC\_LoG categories vary considerably across groups. The cut points used for each origin group's labor market classifications are shown in the last two columns of Appendix A along with the number of labor markets for each group in the four categories.<sup>1</sup>

The HiC\_LoG category had the smallest number of labor markets for each group but every labor market had immigrants from at least one of the origins in 1995. Appendix B shows the population distribution of each origin group across the four categories.

The percentage of labor markets settled by the groups is in part a function of immigrant group population size. Figure 1 displays results from a regression of the origin group size (log) on the percentage of the 741 labor markets settled. The R-squared for that regression was 0.54. Origin countries above the line were more dispersed than expected based on their population size alone while those below the line were less dispersed. Although Mexicans and Canadians had the most dispersed distributions – each had nationals settled in 712 labor markets – for their sizes, Mexicans were actually less dispersed than expected while Canadians were more dispersed. Immigrants from Asian countries, including Philippines, South Korea, India, Vietnam and China also had relatively high levels of dispersion for their size. In contrast, Guyanese, Haitians and Dominicans were least dispersed. With few exceptions, Figure 1 shows that Asian groups were more dispersed relative to their size in 1995 while the Latin American and Caribbean groups were less dispersed.

For this analysis we consider the labor markets in the LoC\_HiG category as the “new destinations” but all of the categories are of interest since they suggest different trends and processes. For instance, the HiC\_HiG areas are important because they include many of the metropolitan areas identified as new destinations in studies that have focused on metropolitan areas (Fischer and Tienda 2006; Suro and Singer 2002). To understand that dynamic, it is necessary to keep in mind that new destinations based on all Hispanics or immigrants tend to identify places where Mexicans are located since that group constituted just over 60 percent of all Hispanic

---

<sup>1</sup> Given that there are 741 labor markets and 24 origin groups, there are 17,784 possible labor markets where foreign born could have lived in 1995. Because many labor markets had no members from specific origins, the actual number of group-specific occupied areas in 2000 was 10,788. The categories are not mutually exclusive in that more than one origin group could reside in the same labor market.

immigrants in 2000. While Mexicans are highly dispersed, other Latin groups are not. The LoC\_LoG category is of interest because it includes “pioneer” areas that had relatively few foreign born but where all groups have some immigrants settled. Those areas could become the nodes for future “new destinations” once sufficient confidential ACS samples become available to permit multi-year estimates for small geographic areas and foreign-born groups. We refer to this category as “emerging” destinations. Finally, the HiC\_LoG areas continue to be the places where most foreign born lived in 2000 and the states where most of those labor markets are located were ones that gained significant foreign-born population in the 1990s, as Hempstead observed (2007). That trend occurred, in part, because many of the “new destinations” are actually located in traditional immigration states. The HiC\_LoG places are considered the traditional ones and this category is used as the reference in the regression analysis.

Out-migration from one of 741 labor markets that involved a move of at least 50 miles in the 1995 to 2000 period is the dependent variable. The analysis focuses on explaining why labor markets differed in the likelihood of out-migration from the four labor market categories previously described. Several covariates control for labor market economic and nativity concentration. Labor market employment change is measured by the percentage change in native-born employment from 1990-2000. By using the native-born change, we avoid problems with endogeneity which occur when the measure is based on foreign-born trends. Research indicates that both immigrants and natives are attracted to destinations with employment growth (Frey and Liaw 2006) and, therefore, it is reasonable to use native-born means to measure trends. A second economic measure is the labor market (LM) average wage for full-time employed workers in the year before the 1990 census. The 1990 LM average rent fee is also used as an economic measure since some research shows that housing costs in concentrated immigrant areas may be more important for out-migration than jobs or wages (Ley 2007; Light and Johnston 2009). LM nativity concentration is measured by each group’s absolute size in a given labor market. While group size is a crude proxy for compatriot availability and immigrant networks in different locales, census data do not permit more refined measurement. The aggregate variables are highly skewed and, therefore, we use natural log transformations. Since different context economic and nativity measures tend to be highly correlated, we chose measures found to be important in previous studies and that are not highly correlated with each other.

The analysis includes several individual covariates as control variables. Dummy variables are used for sex (male=1), citizenship (citizen=1), speaks English only or very well=1, and possession of one or more college degrees=1. Two continuous variables are used, age at U.S. entry and number of years in the United States. Using these two age measures together captures important life cycle events that are independently related to internal migration (Ellis and Goodwin-White 2006). Immigrants who arrive as children or younger ages are more likely to have received some of their education in the United States and be more assimilated. In addition, as immigrants spend more time in the United States, they migrate less internally, regardless of their age at entry. Measurement and national summary statistics for the individual and aggregate variables are provided in Appendix C.

The four labor market categories differ sharply in out-migration, context and individual characteristics. The first row in Table 1 and Figure 2 show that the foreign born were over twice as likely to leave labor markets in the two low composition categories as ones in the high composition contexts from 1995 to 2000 – 20 percent of the foreign born left new destinations (LoC\_HiG) but

only 8.7 percent left traditional destinations (HiC\_LoG). The LM context and individual means for the four categories suggest that they attract different types of immigrants. While the two high composition labor markets had the highest foreign-born wages and housing rents, they had the lowest education profiles – 42 percent of immigrants in the LoC\_LoG labor markets (percent). Differences in sex, age at U.S. entry, and years in United States were minor across the categories.

## **Migration from New Destinations: Findings**

To evaluate how labor market economic conditions and nativity concentration condition out-migration net of immigrant's individual characteristics, we estimated a series of nested binary logistic regressions. The first set of models is for the combined foreign-born sample and treats Canadians as the reference category (Table 2). Model 1 provides the baseline for out-migration from new destinations (LoC\_HiG) and the other two categories with changing immigration contexts relative to traditional destinations (HiC\_LoG). While that model shows no significant difference in out-migration between the two high composition areas, it establishes that out-migration for immigrants' living in new destinations was 2.6 times higher than it was for immigrants living in traditional destinations. After adding group size and a quadratic term for group size, Model 2 indicates that LM nativity concentration deters out-migration although this effect is non-linear with the deterrent effect leveling out at very high concentration levels. Controlling for nativity concentration greatly reduces the odds of out-migration from low composition labor markets although immigrants living in those areas still have a significantly higher tendency to out-migrate. In addition, a significant difference in out-migration from the two high composition areas results once group size is standardized.

Controlling for LM economic conditions also reduces out-migration from the three LM composition and growth contexts but not as dramatically as nativity concentration did (Model 3). A comparison of Model 1 and Model 3, which adds the three LM economic conditions and removes the group size measures, shows modest reductions in out-migration in the low composition labor markets, particularly among those in the new destination category, but no effect in the high composition markets. Nonetheless the signs and magnitude of the LM economic measures are in the expected direction and significant except for LM average rent. LM average wages had a strong deterrent effect on out-migration (odds ratio=.231). Immigrants living in labor markets with employment growth in the 1990s were also significantly less likely to migrate.

Model 4 is a full additive model that includes both LM economic and nativity concentration covariates along with controls for immigrant's individual human capital and national origin. It shows that both LM nativity concentration and robust economic conditions remain strong deterrents of migration after controlling for immigrant's human capital and national origins. In addition, the migration responses in the LM composition and growth categories were similar to those of Model 2 when only the group size covariates were added. Residence in an emerging destination (LoC\_LoG) area was associated with a higher level of out-migration and residence in a HiC\_HiG area was associated with a lower tendency to migrate. The effect for new destinations (LoC\_HiG), however, is insignificant in the additive model. While most of the shifts in the effects for the LM composition and growth categories stem from the direct measurement of group size, this last change appears linked to the inclusion of human capital and origin covariates.

The individual covariates in the model display expected relationships. Out-migration is higher for the college educated, English speakers who are fluent or close to being fluent, and men. As expected, migration declines as age at U.S. entry and years in the United States increase. The positive effect for the quadratic term for years in the United States indicates that beyond a certain point, probably as immigrants near the end of their productive years, out-migration increases. The nativity origin coefficients show that 9 groups (Mexicans, Cubans, Colombians, Chinese, Koreans, Taiwanese, Pakistanis, Laotians, and Jamaicans) have no significant migration difference with Canadians; thirteen were significantly less likely to migrate; and Indians were significantly more likely to migrate. While explaining group differences is not our main purpose here, other research indicates that they derive from group differences in human capital, immigration statuses, and group contexts (Gurak and Kritz 2000; Kritz and Gurak 2001).

Model 5 addresses the analytic question of central interest, namely whether immigrant's out-migration decisions respond simultaneously to labor market economic and nativity conditions. That model includes interaction terms between LM group size and the LM composition and growth categories as well as with LM wages, LM employment change, and college education. For the interaction terms between group size and the three LM composition and growth categories, only that for HiC\_HiG markets is significant (odds ratio =.955\*), which again underscores that out-migration is least likely to occur in HiC\_HiG labor markets with larger group-specific populations. However, net of the interaction terms, the main effects for the three LM composition and growth categories are no longer significant in Model 5 although the sign for the two low composition categories remains positive and becomes positive in this model for immigrants living in the HiC\_HiG category with smaller group size concentrations. LM nativity concentration also accounts for why LM wages and LM employment change deter out-migration given that the main effects for those measures are also insignificant. Immigrants were least likely to leave labor markets that had both strong economic conditions and larger nativity concentrations. Also as expected, nativity concentration reduces the odds that immigrants with college education migrate. However, once that interaction term is included in the model, the main effect for college education increases dramatically – college educated immigrants living in labor markets with fewer compatriots have migration odds ratios 4 times higher than the non-college educated living in comparable places. The inclusion of group size interactions has minimal effect on the magnitude and signs of the individual covariates.

Figure 3 illustrates how migration odds ratios for the LM composition and growth categories change across Table 2 models after controlling for LM nativity concentration. If only nativity concentration on its own is controlled, immigrants living in low composition labor markets remain significantly more likely to migrate while those in high composition places that grew in the 1990s were less likely to do so. Controlling for LM economic conditions, in contrast, modestly reduces out-migration in the additive models. If the analysis stopped there, we would conclude that while both LM nativity concentration and LM economic conditions deter foreign-born out-migration, nativity concentration is the more important of the two factors for migration. However since we have a large number of local labor markets and analysis cases, we can go a step further by examining interactions between LM nativity concentration and LM wages and employment growth. The interaction model shown in Table 2, Model 5, supported the argument that immigrants were less likely to leave labor markets with higher wages and strong employment growth in the 1990s if those places also had higher nativity concentration. Since our nativity concentration measure is group-specific, this finding supports neo-classical economic theory and migration push-pull

theories, which hold that people take economic as well as non-economic factors into consideration in their migration decisions.

Thus far we have focused on relationships for the combined sample, controlling for national origin differences while examining simultaneously the relative importance of economic and social conditions where immigrants lived in 1995 net of individual characteristics. While our findings indicate that both dimensions are important, since national origin groups differ significantly in their internal migration levels, it could be the case that the findings observed in the combined model result from differential group responses and sample weights. Labor market out-migration across the study groups ranged from 18 percent for Indians down to 6 percent for Ecuadorans (Figure 3). To evaluate whether the relationships in the combined model are robust, we estimated separate models for the 24 national origin groups. If immigrants are indeed taking local labor market conditions as well as nativity concentration into consideration in deciding whether to migrate, then we would expect to find that the effects observed in the combined interaction model hold up in the group models.

Table 3 displays odds ratios for new (LoC\_HiG) and emerging (LoC\_HiG) destinations from two sets of group-specific models, namely a zero-order model that included only the three LM composition and growth covariates and an interaction model which included the covariates used in Table 2, Model 4, plus interaction terms between LM group size and LM wages, LM employment and college education. Both sets of models were estimated separately for each origin group. The statistics for the interaction models in Table 3 were drawn from the group models displayed in Appendix D, rows 2 and 3. The zero-order models in Table 3 show that the odds of out-migration were significantly higher for 22 origin groups in both the new and emerging destinations. In both categories, there was no significant difference for Laotians. After controlling for interactions between LM nativity concentration, economic context, and college education, the outcomes are similar to those shown for the combined model for most of groups. Keeping in mind that the direct interaction terms shown in Table 3 are for immigrants living in labor markets with the smallest group numbers, for 17 of the 24 groups, those terms are insignificant as they are in Model 5, Table 2. In the emerging destination models, the main effects are not significant for 19 of the groups. These findings support our argument that in deciding whether or not to migrate internally, immigrants are not just considering economic conditions versus compatriot availability in places where they live but are taking both into account.

Further group-specific analysis would be necessary to explain the significant differences for some of the groups in the interaction models. While one could speculate that since large numbers of Jamaican and Guyanese work in the health industry, they probably were recruited to work in dispersed locations but after living there, they have a strong preference to move on to take advantage of opportunities elsewhere. Racial considerations may play a role in their decisions. Pakistanis, on the other hand, are predominately Muslims and more likely to be sensitive to the absence of mosques and a supportive cultural environment in places where they have few compatriots. While Iranians too are Muslims, they consist of many secular Iranians who were associated with the pre-Islamic regime that took power in Iran in 1979. The Laotian pattern probably stems from the fact that Laotians came to the United States as refugees and were dispersed to different parts of the country by refugee resettlement agencies. Their dispersed settlement pattern, in turn, would have given them an opportunity to build extensive networks to dominant culture institutions. Therefore, they are less likely to out-migrate than other groups without those

types of bridges to local institutions. The refugee resettlement argument is also supported by the finding that Cubans were significantly less likely to leave new destinations and showed no significant difference in out-migration from emerging destinations. Cubans too started as a refugee group and although they have now built up a large enclave community in Southeastern Florida, some Cubans are still in the hinterlands and probably remain in those places for the same reasons that Laotians do, namely because they have built up social and institutional ties in those places.

## **Discussion**

Scholars are giving increased research attention to immigrant growth in new destinations but many questions remain unanswered about why this growth has occurred or its implications for immigrants and natives settled in those communities. This paper examined a couple of questions not previously addressed in the literature, namely why out-migration levels from new and emerging destinations from 1995 to 2000 were double those for immigrants settled in traditional labor markets and whether those differentials were shaped by labor market economic conditions and compatriot availability in 1995 residence places. The central hypothesis that guided the analysis was that immigrants would be less likely to leave labor markets that have both robust economic conditions and high levels of compatriot availability as measured by nativity concentrations. We examined that hypothesis both in a combined foreign-born sample that included the largest Asian, Latin American and Caribbean groups, and Canadians, and for 24 national origin group-specific models. Overall, the combined and group models provide strong support for the argument that immigrant's out-migration decisions respond both to local labor market economic conditions and nativity concentration. While immigrants are overwhelmingly more likely to leave new and emerging destinations than they are to leave traditional destinations, the likelihood that they will do so depends on the economic conditions in places where they live and the number of compatriots available to them in those places. In addition, college-educated immigrants have a higher disposition to leave new destinations and take advantage of opportunities elsewhere the lower the number of compatriots available to them in their residence places.

The findings for the college-educated are of interest to pursue in further studies since most previous studies have focused on unskilled Hispanic or immigrant migration to new destinations. While it is well known that the foreign-born population is bifurcated along skill lines, our research suggests that skilled migrants, who are more likely than unskilled migrants to migrate internally and to settle in new destinations, also respond differently than unskilled migrants in out-migration likelihood from new destinations. Our analysis shows strong interaction effects between college education and nativity concentration. If the college educated reside in places with high nativity concentrations they are less likely to leave those places than their lesser educated counterparts but they are also more likely to leave new and emerging destinations if few of their counterparts live in those areas. We believe those findings occur because the college educated have more choices than others and can selectively locate themselves in places that allow them to maximize both economic and social opportunities.

A related question that has not been addressed in previous literature is why skilled immigrants migrate to new and emerging destinations in the first place. While we have confirmed that the age range used in this study reduced the likelihood that college-educated immigrants left new and emerging destinations because they graduated from college, college attendance was slightly higher in those destinations than it was in the high composition areas. However, we suspect

that restructuring in health, education, or other professional or high technology industries underlie the migrations of most skilled immigrants to new destinations since those industries too have experienced significant restructuring in recent decades that has implications for internal migration of skilled immigrants. Health maintenance organizations, for instance, have extended their outreach into remote regions of the country and set up satellite health clinics in small towns throughout rural America that provide basic health services and channel patients needing acute care to metropolitan areas. In order to contain costs, large health networks have recruited foreign-born medical personnel for work in non-metropolitan areas because it is difficult to attract native health workers to those areas. Comparable changes are underway in higher education, as states build and expand community colleges and technical schools in order to give rural and small town residents access to higher education and technical training on a commuting basis. In the higher education industry too, growing numbers of teachers, instructors and other workers are immigrants. These trends have implications for out-migration because workers in professional industries are more mobile than ones in other fields.

Our analysis suggests that new destinations should be measured taking into account origin group differences rather than using pan-ethnic categories. Specification of the Hispanic pan-ethnic category is most problematic given that Mexicans dominate that category and have very different migration, settlement and dispersion patterns than other Spanish-origin groups. In addition, skill profiles and niche strategies differ widely across the Hispanic groups. Asians are an even more heterogeneous category and also differ widely in their migration, settlement, and skill profiles. Thus identifying new destinations based on pan-ethnic classifications makes findings difficult to interpret. Since scholars have resorted to the aggregation approach largely because of insufficient sample size, it is unfortunate that there will be no census long form sample in 2010. Even combining five years of American Community Surveys (ACS) will not yield the sample size that the long-form decennial samples did and there will be the added problem of how to interpret migration and other patterns that occur over a five-year period.

An important next step is to look at differences in the characteristics of labor markets in the four composition and growth categories that are influencing destination choices since that would allow us to confirm whether some of our speculations are correct about what attracts immigrants to new destinations. It would also be important to examine how destination choices differ for immigrants from different origins since in addition to their niche strategies and migrant networks, most immigrants are likely to be moving to new destinations that are in the hinterlands of their concentrated metropolitan settlements. The gravity effect of distance has long been shown to be an important deterrent of migration. Finally, although our analysis shows that immigrants' internal migrations take nativity concentration into account, we know little about whether compatriot availability tends to increase, remain the same, or decrease after secondary migrations from new destinations occur. Another important issue for future nativity concentration studies to consider is whether there is a threshold number of immigrants that seem to suffice in migration decisions and if so, how the level and range for that number varies across origin groups.

## REFERENCES

- Bartel, Ann P. 1989. "Where Do the New US Immigrants Live?" *Journal of Labor Economics* 7:371-391.
- Bartel, Ann P. and Marianne J. Koch. 1991. "Internal Migration of US Immigrants." Pp. 121-134 in *Immigration, Trade, and the Labor Market*, edited by J. M. Abowd and R. B. Freeman. Chicago: The University of Chicago Press.
- Bohon, Stephanie A., Heather Macpherson, and Jorge H. Atilas. 2005. "Educational Barriers for New Latinos in Georgia." *Journal of Latinos and Education* 4:43 - 58.
- Boswell, Christina. 2008. "Combining Economics and Sociology in Migration Theory." *Journal of Ethnic and Migration Studies* 34:549-566.
- Breton, Raymond. 1964. "Institutional Completeness of Ethnic communities and the Personal Relations of Immigrants." *The American Journal of Sociology* 70:193-205.
- Broadway, Michael J and Terry Ward. 1990. "Recent Changes in the Structure and Location of the U.S. Meatpacking Industry." *Geography* 75:76-79.
- Donato, Katharine M., Charles M. Tolbert II, Alfred Nucci, and Yukio Kawano. 2007. "Recent Immigrant Settlement in the Nonmetropolitan United States: Evidence from Internal Census Data." *Rural Sociology* 72:537-559.
- Durand, Jorge, Douglas S. Massey, and Fernando Charvet. 2000. "The Changing Geography of Mexican Immigration to the United States: 1910-1996." *Social Science Quarterly* 81:1-15.
- Ellis, Mark and Jamie Goodwin-White. 2006. "1.5 Generation Internal Migration in the US: Dispersion from States of Immigration?" *International Migration Review* 40:899-926.
- Fischer, Mary J. and Marta Tienda. 2006. "Redrawing Spatial Color Lines: Hispanic Metropolitan Dispersal, Segregation, and Economic Opportunity." Pp. 100-131 in *Hispanics and the Future of America, Committee on Population, Division of Behavioral and Social Sciences and Education*, edited by M. Tienda and F. Mitchell. Washington, D.C.: National Academies Press.
- Frey, William H and Kao-Lee Liaw. 2005a. "Migration within the United States: Role of Race-Ethnicity." Brookings-Wharton Papers on Urban Affairs. [http://muse.jhu.edu/journals/brookings-wharton\\_papers\\_on\\_urban\\_affairs/v2005/2005.1frey.html](http://muse.jhu.edu/journals/brookings-wharton_papers_on_urban_affairs/v2005/2005.1frey.html).
- Frey, William H. and Kao-Lee Liaw. 2005b. "Interstate Migration of Hispanics, Asians and Blacks: Cultural Constraints and Middle Class Flight." Population Studies Center, University of Michigan, Ann Arbor.
- . 2006. "Migration within the United States: Role of Race-Ethnicity." Brookings Institution Metropolitan Policy Program, Washington, D.C.
- Funkhouser, Edward. 2000. "Changes in the Geographic Concentration and Location of Residence of Immigrants." *International Migration Review* 34:489-510.
- Goździak, Elżbieta M. and Susan F. Martin. 2005. "Beyond the Gateway: Immigrants in a Changing America." Pp. 302. New York: Lexington Books.

- Greenwood, Michael J. 1985. "Human Migration: Theory, Models, and Empirical Studies." *Journal of Regional Science* 25:521-544.
- Gurak, Douglas T. and Mary M. Kritz. 2000. "The Interstate Migration of U.S. Immigrants: Individual and Contextual Determinants." *Social Forces* 78:1017-1039.
- Hempstead, Katherine. 2007. "Mobility of the Foreign-Born Population in the United States, 1995-2000: The Role of Gateway States." *International Migration Review* 41:466-479.
- Hernández-León, Rubén and Víctor Zúñiga. 2000. "'Making Carpet by the Mile': The Emergence of a Mexican Immigrant Community in an Industrial Region of the U.S. Historic South." *Social Science Quarterly* 81:49-66.
- Hirschman, Charles and Douglas S. Massey. 2008. "Places and Peoples: The New American Mosaic." Pp. 1-21 in *New Faces in New Places: The Changing Geography of American Immigration*, edited by D. S. Massey. New York: Russell Sage Foundation.
- Huntington, Samuel P. 2004. *Who Are We? The challenges to America's National Identity*. NY: Simon & Schuster.
- Johnson-Webb, Karen D. 2002. "Employer Recruitment and Hispanic Labor Migration: North Carolina Urban Areas at the End of the Millenium." *The Professional Geographer* 54:406-421.
- Kandel, William and Emilio A. Parrado. 2004. "Industrial Transformation and Hispanic Migration to the American South: The Case of the Poultry Industry." Pp. 255-276 in *Hispanic Spaces, Latino Places: A Geography of Regional and Cultural Diversity*, edited by D. Arreola. Austin: University of Texas Press.
- . 2005. "Restructuring of the US Meat Processing Industry and New Hispanic Migrant Destinations." *Population and Development Review* 31:447-471.
- Kobrin, Frances D. and Aldon Speare. 1983. "Out-Migration and Ethnic Communities." *International Migration Review* 17:425-444.
- Kritz, Mary M. and Douglas T. Gurak. 2001. "The Impact of Immigration on the Internal Migration of Natives and Immigrants." *Demography* 38:133-145.
- Kritz, Mary M. and June M. Nogle. 1994. "Nativity Concentration and Internal Migration Among the Foreign-Born." *Demography* 31:509-524.
- Kuznets, Simon and Dorothy S. Thomas. 1958. "Internal Migration and Economic Growth." in *Selected Studies of Migration since World War II*. New York: Milbank Memorial Fund.
- Leach, Mark A. and Frank D. Bean. 2008. "The Structure and Dynamics of Mexican Migration to New Destinations in the United States." Pp. 51-74 in *New Faces in New Places: The Changing Geography of American Immigration*, edited by D. S. Massey. New York: Russell Sage Foundation.
- Ley, David. 2007. "Countervailing Immigration and Domestic Migration in Gateway Cities: Australian and Canadian Variations on an American Theme." *Economic Geography* 83:231-254.
- Lichter, Daniel T and Kenneth M Johnson. 2009. "Immigrant Gateways and Hispanic Migration to New Destinations." *International Migration Review* 43:496-518.

- Lichter, Daniel T. and Kenneth M. Johnson. 2006. "Emerging Rural Settlement Patterns and the Geographic Redistribution of America's New Immigrants." *Rural Sociology* 71:109-131.
- Light, Ivan and Michael Francis Johnston. 2009. "The Metropolitan Dispersion of Mexican Immigrants in the United States, 1980 to 2000." *Journal of Ethnic and Migration Studies* 35:3 - 18.
- MacDonald, John W. and Beatrice D. MacDonald. 1964. "Chain Migration, Ethnic Neighborhood Formation and Social Networks." *Milbank Memorial Fund Quarterly* 42:82-97.
- Massey, Douglas A. 1995. "The New Immigration and Ethnicity the United States." *Population and Development Review* 21:631-52.
- Massey, Douglas A., Joaquin Arango, Ali Koucouci, Adela Pellegrino, and J. Edward Taylor. 1994. "An Evaluation of International Migration Theory: The North American Case." *Population and Development Review* 20:699-752.
- Massey, Douglas S. 2008. "New Faces in New Places: The Changing Geography of American Immigration." Pp. 370. New York: Russell Sage Foundation.
- Massey, Douglas S and Chiara Capoferro. 2008. "The Geographic Diversification of American Immigration." Pp. 25-50 in *New Faces in New Places: The Changing Geography of American Immigration*, edited by D. S. Massey. New York: Russell Sage.
- Massey, Douglas S. 1998. "Immigration, Segregation, and the Concentration of Poverty: Blacks, Hispanics, and Asians." Paper presented at the Annual Meetings of the American Sociological Association, August, San Francisco.
- Massey, Douglas S., Rafael Alarcon, Jorge Durand, and Humberto Gonzales. 1987. *Return to Aztlan: The Social Process of International Migration from Western Mexico*. Berkeley, CA.: University of California Press.
- Millard, Ann V. and Jorge Chapa. 2004. "Apple Pie and Enchiladas: Latino Newcomers in the Rural Midwest." Austin: University of Texas Press.
- Neuman, Kristin E. and Marta Tienda. 1994. "The Settlement and Secondary Migration Patterns of Legalized Immigrants: Insight from Administrative Records." in *Immigration and Ethnicity: The Integration of America's Newest Immigrants*, edited by B. Edmonston and J. S. Passel. Lanham, MD: Urban Institute Press.
- Newbold, K. Bruce. 1996. "Spatial Distribution and Redistribution of the Foreign-Born in the U.S.: 1980 and 1990." *Economic Geography* 75:254-271.
- Newbold, K. Bruce and Kao-Lee Liaw. 1995. "Return and Onward Migrations in Canada, 1976-1981: An Explanation Based on Personal and Ecological Variables." *The Canadian Geographer* 39:16-30.
- Nogle, June Marie. 1994. "Internal Migration for Recent Immigrants to Canada." *International Migration Review* 28:31-48.
- Pandit, Kavita and Suzanne D. Withers. 1999. "Migration and Restructuring in the United States: A Geographic Perspective." New York: Rowman & Littlefield Publishers, Inc.

- Parrado, Emilio A. and William Kandel. 2008. "New Hispanic Migrant Destinations: A Tale of Two Industries." Pp. 99-123 in *New Faces in New Places: The Changing Geography of American Immigration*, edited by D. S. Massey. New York: Russell Sage Foundation.
- Portes, Alejandro and Rubén C. Rumbaut. 1990. *Immigrant America: A Portrait*. Berkeley: University of California Press.
- Portes, Alejandro and Julia Sensenbrenner. 1993. "Embeddedness and Immigration: Notes on the Social Determinants of Economic Action." *American Journal of Sociology* 98:1320-50.
- Portes, Alejandro and Min Zhou. 1993. "The New Second Generation: Segmented Assimilation and Its Variants among Post-1965 Immigrant Youth." *Annals of the American Academy of Political and Social Science* 530:74-96.
- Rebhun, Uzi. 2006. "Nativity Concentration and Internal Migration among the Foreign-Born in Israel, 1990-1995." *Revue européenne des migrations internationales*:1-22.
- Scott, Darren M., Paul A. Coomes, and Alexei I. Izyumov. 2005. "The Location Choice of Employment-Based Immigrants among U.S. Metro Areas." *Journal of Regional Science* 45:113-145.
- Singer, Audrey. 2004. "The Rise of New Immigrant Gateways." Brookings Institution, Washington, D.C.
- Sjaastad, Larry A. 1962. "The Costs and Returns of Human Migration." *Journal of Political Economy* 70:80-93.
- Suro, Roberto and Audrey Singer. 2002. "Latino Growth in Metropolitan America: Changing Patterns, New Locations." Brookings Institution Center on Urban and Metropolitan Policy and Pew Hispanic Center, Washington, D.C.
- Thomas, William I. and Florian Znaniecki. 1984. *The Polish Peasant in Europe and America, Abridged Version*, Edited by E. Zaretsky. Urbana: University of Illinois Press.
- Tienda, Marta and Franklin D. Wilson. 1992. "Migration and the Earnings of Hispanic Men." *American Sociological Review* 57:661-678.
- Tolbert, Charles M., Troy C. Blanchard, and Michael D. Irwin. 2006. "Stability and Change in Individual Determinants of Migration: Evidence from 1985-90 and 1995-2000." U.S. Bureau of the Census, Washington, DC.
- Tolbert, Charles M. and Molly Sizer. 1996. "U.S. Commuting Zones and Labor Market Areas: A 1990 Update." Economic Research Service, Rural Economy Division, U.S. Department of Agriculture, Washington, D.C.
- Winders, Jamie. 2005. "Changing Politics of Race and Region: Latino Migration to the U.S. South." *Progress in Human Geography* 29:683-699.
- Zúñiga, Víctor and Rubén Hernández-León. 2005. "New Destinations: Mexican Immigration in the United States". New York: Russell Sage Foundation.

**Table 1: Means for Total United States and 4 Labor Market Contexts Based on Foreign-Born Composition and Growth Characteristics, 2000**

	National	Low Composition & Low Growth	Low Composition & High Growth	High Composition & High Growth	High Composition & Low Growth
Labor Market Out Migration + 50 mile distance	10.44	21.79	19.71	7.79	8.65
LM Aggregate Measures:					
Annual Wages	41,241	37,484	35,544	41,321	43,159
Employment Change, 1990-2000	1.5	5.2	10.9	4.2	-3.6
Monthly Housing Rent	633	534	498	620	706
Origin Group Size	380,411	4,754	12,145	149,708	694,642
Individual Measures:					
College	20.3	42.2	26.3	18.6	17.7
High School or Some College	36.1	39.3	34.1	37.4	35.3
Less than High School	43.6	18.5	39.5	44.1	47.0
Speaks English only or very well	42.3	66.0	46.7	42.4	38.6
Speaks English well	24.8	21.4	24.2	24.3	25.7
Speaks poor or no English	32.9	12.5	29.1	33.3	35.7
Age at U.S. Entry	22.1	21.6	22.5	22.6	21.7
Years in United States	17.4	19.5	15.9	16.8	18.1
Citizen	44.8	59.9	42.6	44.2	44.2
Male	50.5	48.1	53.6	51.6	49.1

<sup>a</sup> Sample includes foreign-born aged 25-59 from 24 foreign-born origin groups.

**Table 2. Logit Regressions of Labor Market Migration on Group Composition, Growth and Size Context, Economic Context, and Individual Characteristics (odds ratios)**

VARIABLES	Base Model 1	LM Size Model 2	LM Economic Model 3	Additive Model 4	Interaction Model 5
LM Low composition and low growth	2.941***	1.216***	2.619***	1.170**	1.106
LM Low composition and high growth	2.592***	1.189***	2.194***	1.041	1.464
LM High composition and high growth	0.892	0.775***	0.909	0.814***	1.37
LM group size (log)		0.652***		0.665***	1.081
LM group size squared (log)		1.013***		1.012***	1.008*
LM Average Wage (log)			0.231***	0.267***	0.688
LM Employment Change, 1990-2000 (log)			0.733*	0.661***	1.06
LM Average Rent (log)			0.865	1.297**	1.202
College Education or more				1.717***	4.027***
Speaks English only or very well				1.171***	1.171***
Citizen				0.754***	0.762***
Age at U.S. Entry				0.961***	0.961***
Years in United States				0.929***	0.928***
Years in USA squared				1.001***	1.001***
Male				1.155***	1.154***
Mexico				0.947	0.977
Cuba				0.847	0.895
El Salvador				0.675***	0.677***
Dominican Republic				0.817***	0.815***
Colombia				0.93	0.921
Guatemala				0.671***	0.672***
Ecuador				0.533***	0.529***
Honduras				0.673***	0.684***
Peru				0.589***	0.578***
Nicaragua				0.504***	0.514***
Brazil				0.621***	0.599***
Philippines				0.808***	0.843***
China				1.165	1.187
India				1.166**	1.157**
Vietnam				0.870*	0.891*
Korea				1.143	1.175
Taiwan				0.924	0.886
Iran				0.633***	0.610***
Pakistan				0.877	0.818*
Laos				0.923	0.946
Jamaica				0.831	0.843
Haiti				0.745**	0.746**
Guyana				0.580***	0.583***
low comp. & low growth X group size					1.012
low comp. & high growth X group size					0.962
high comp. & high growth X group size					0.955*
LM Wages X Group Size					0.912*
LM Employment Change X Group Size					0.938*
College (individual) X Group Size					0.913***
Observations	1,625,960	1,625,960	1,625,960	1,625,960	1,625,960
Log Likelihood	527966***	519514***	-523815***	-496566***	-495722***

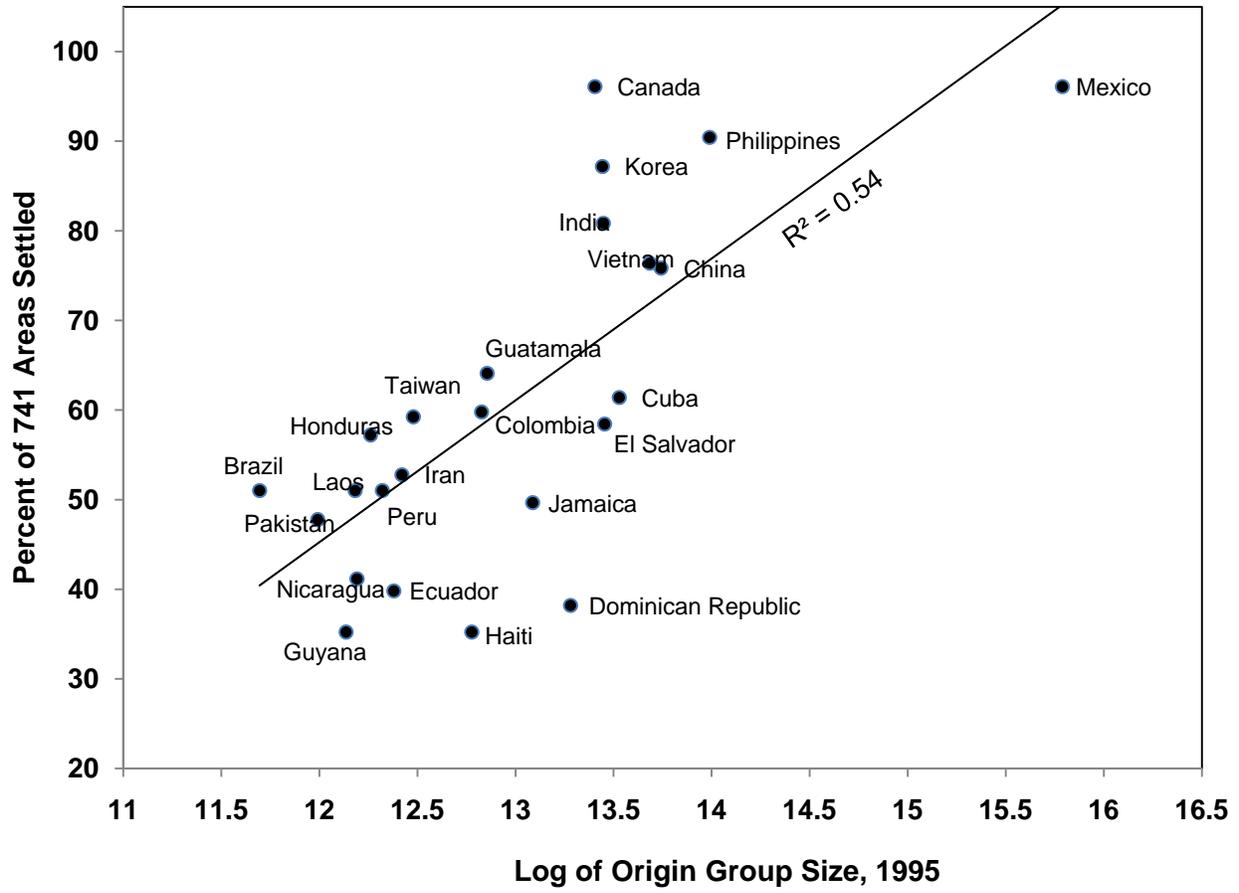
\*\*\* p<0.001, \*\* p<0.01, \* p<0.05

**Table 3: Odds Ratios for Labor Market Migration from New and Emerging Destinations, Zero-Order and Interaction Models Estimated Separately for 24 Origin Groups (odds ratios)**

	Low Composition & High Growth (New Destinations)		Low Composition & High Growth (Emerging Destinations)	
	zero-order model	interaction model	zero-order model	interaction model
Mexico	1.91	0.82	2.48	0.80
Cuba	2.46	0.70	1.31	0.78
El Salvador	2.39	1.00	2.20	1.04
Dominican Republic	3.33	1.36	7.08	1.78
Colombia	3.60	1.52	1.65	1.06
Guatemala	2.40	0.89	2.45	1.05
Ecuador	2.85	0.97	2.09	1.08
Honduras	1.96	1.13	2.54	1.20
Peru	3.11	0.89	2.34	0.91
Nicaragua	2.30	0.74	2.83	0.91
Brazil	2.71	1.26	2.67	1.47
Philippines	3.02	1.14	2.50	1.06
China	6.06	1.37	9.81	1.34
India	3.21	0.98	3.87	1.16
Vietnam	2.37	0.90	2.65	0.98
Korea	3.50	1.00	3.75	0.99
Taiwan	1.72	0.77	2.31	0.94
Iran	2.29	0.94	2.29	1.06
Pakistan	3.30	1.46	2.79	1.39
Laos	0.98	0.87	0.77	0.91
Jamaica	5.15	2.01	2.57	1.78
Haiti	3.82	1.51	2.42	1.51
Guyana	4.09	1.57	2.72	1.53
Canada	2.10	1.18	1.59	1.00

\* Grey-filled cells represent statistical significance at the .05 level or higher. The zero-order and interaction models were estimated separately for 24 national origin groups. The reference category for both sets of models was the High Composition/Low Growth one.

**Figure 1. National Origin Group Size and Percent of Labor Markets Settled, 1995**



Note: RSF/Migration/Mig\_tablesRevFin\_Feb20releaseDTG.xlsx. Tab9\_GrpSize\_PercentChart

**Figure 2: Labor Market Migration from 4 Foreign-Born Composition and Growth Contexts, 1995-2000**

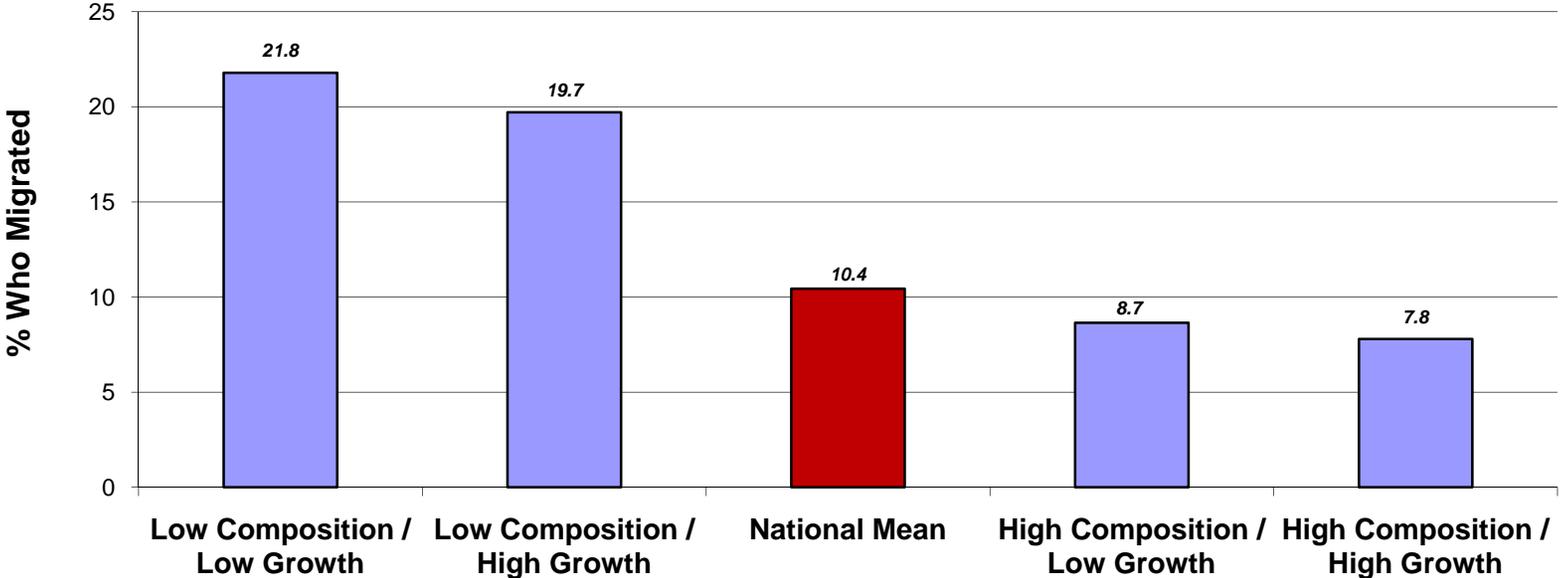
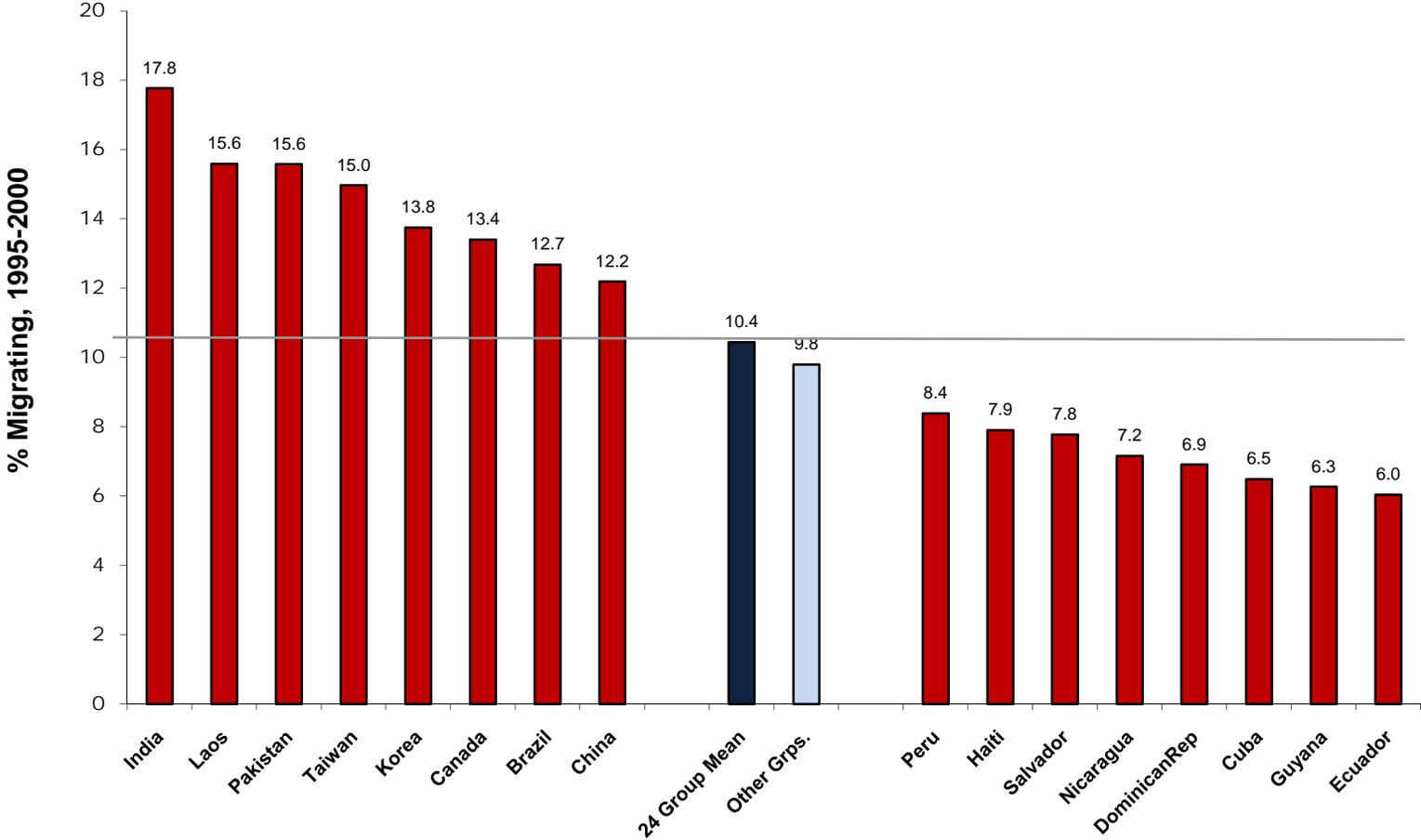
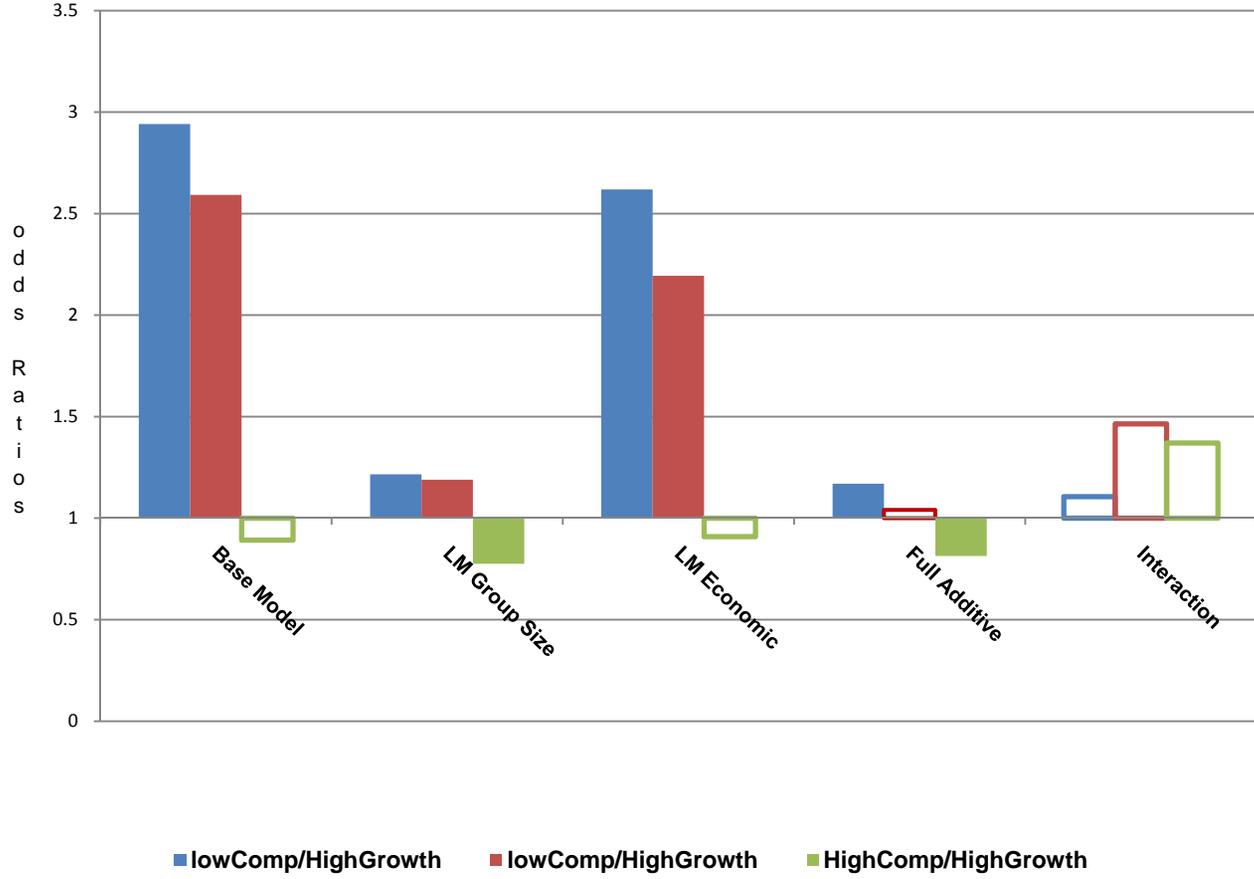


Figure 3: Labor Market Migration between 1995 and 2000, by National Origin Group



**Figure 4: Odds Ratio Changes in Labor Market Migration from Different Composition/Growth Contexts, Based on Models 1-5, Table 2 \***



\* Solid filled columns represent statistically significant coefficients.

**Appendix A. Labor Market Classifications of 24 Asian, Caribbean, and Latin American Origin Groups Based on Each Group's 1995 Group-Specific Population Composition and 1990-1995 Population Growth Rates**

National Origin	Low Composition and Low Growth	Low Composition and High Growth	High Composition and High Growth	High Composition and Low Growth	Labor Market Ns for Each Origin (a)	Group % of national population, 1995	Group % population change, 1990-1995
Mexico	103	502	59	48	712	2.91	70.12
Cuba	119	328	6	2	455	0.30	3.64
El Salvador	65	344	20	4	433	0.28	51.25
Dominican Rep.	87	190	5	1	283	0.24	71.18
Colombia	121	306	11	5	443	0.15	33.28
Guatemala	88	349	30	8	475	0.15	71.92
Ecuador	86	200	7	2	295	0.10	67.42
Honduras	121	275	19	9	424	0.09	96.90
Peru	106	248	18	6	378	0.09	57.43
Nicaragua	62	228	6	9	305	0.08	18.06
Brazil	137	214	19	8	378	0.05	47.75
Philippines	210	427	20	13	670	0.48	32.64
China	167	374	15	6	562	0.38	38.52
India	219	347	18	15	599	0.28	56.66
Vietnam	181	345	25	15	566	0.36	64.22
Korea	167	436	22	21	646	0.28	24.21
Taiwan	165	241	19	14	439	0.11	11.03
Iran	161	211	11	8	391	0.10	18.39
Pakistan	136	187	20	11	354	0.07	78.81
Laos	89	204	52	33	378	0.08	14.92
Jamaica	124	225	14	5	368	0.20	48.31
Haiti	60	189	9	3	261	0.14	58.89
Guyana	97	154	8	2	261	0.08	56.79
Canada	212	364	76	60	712	0.27	-8.13
Labor market N	3,083	6,888	509	308	10,788		
National averages	na	na	na	na	741	10.03	28.67

(a) There are 741 labor markets but no origin groups had nationals present in all areas. Column cell numbers indicate that there was at least one national present for the specific group in 1995. There were 17,784 potential settlement areas (741 \* 24) but only 10,788 areas actually had immigrants.

**Appendix B: Percentage of National Origin Group in Each Growth-Composition Context, Persons Aged 25-59 \***

	<b>LoC_LoG</b>	<b>LoC_HiG</b>	<b>HiC_HiG</b>	<b>HiC_LoG</b>	<b>Sample Weighted N</b>
Mexico	0.6	13.3	31.7	54.4	4,995,294
Cuba	12.0	6.5	71.1	10.5	426,001
Salvador	1.7	9.4	41.5	47.4	526,205
Dominican Rep.	1.7	8.2	27.1	63.0	404,304
Colombia	13.3	9.7	44.7	32.2	265,316
Guatemala	2.1	11.0	24.3	62.6	278,880
Ecuador	6.1	6.3	76.4	11.1	172,706
Honduras	4.1	15.4	23.4	57.1	150,978
Peru	8.6	12.1	43.2	36.1	158,437
Nicaragua	2.9	12.2	44.9	40.0	132,759
Brazil	13.2	9.0	41.1	36.6	88,222
Philippines	6.2	13.8	21.5	58.5	825,828
China	5.3	23.3	41.0	30.3	612,276
India	12.3	14.5	22.0	51.2	530,888
Vietnam	7.1	16.0	26.5	50.4	648,548
Korea	7.3	16.9	17.8	58.0	472,777
Taiwan	12.7	12.7	55.7	18.9	207,161
Iran	15.2	12.0	51.5	21.3	178,164
Pakistan	10.2	10.7	56.8	22.3	120,594
Laos	15.7	11.0	42.2	31.2	143,166
Jamaica	9.1	4.5	76.0	10.5	333,462
Haiti	4.1	5.5	22.7	67.7	252,339
Guyana	8.0	5.9	79.5	6.6	132,183
Canada	14.0	23.7	21.1	41.2	357,421
Combined 24 Groups	4.8	13.1	35.1	47.0	12,413,909

\* The percentages residing in each type of composition-growth context sum to 100 percent across for each national origin group.

## Appendix C: Variable Definitions and Descriptive Statistics (weighted) for Labor Market and Individual Covariates

	Variable Definition	Mean	Group with lowest mean		Group with largest mean	
<b>Migration Variables, 1995-2000</b>						
LM Out-migration	Dummy variable=1 if foreign born aged 25-59 migrated from one LM to another between 1995 and 2000 and moved a distance of at least 50 miles	10.44	Ecuador	6.04	India	17.77
<b>Individual Variables</b>						
College or more	Dummy variable=1 if individual had a college degree or higher level of education, 2000	0.20	Mexico	0.04	Taiwan	0.70
High school grad or some college	Dummy variable=1 if individual had a high school degree or some college education, 2000	0.36	India	0.22	Peru	0.62
Less than high school	Dummy variable=1 if individual did not have a high school degree, 2000	0.44	Taiwan	0.05	Mexico	0.69
Speaks English only or very well	Dummy variable=1 if individual speaks English only or speaks English very well, 2000	0.42	Mexico	0.27	Jamaica	0.98
Speaks English well	Dummy variable=1 if individual speaks English well, 2000	0.25	Jamaica	0.01	Taiwan	0.4
Speaks English poorly or not at all	Dummy variable=1 if individual speaks English poorly or not at all, 2000	0.33	Jamaica	0.00	Mexico	0.48
Citizen	Dummy variable=1 if individual is a naturalized citizen, 2000.	0.45	Guatemala	0.29	Taiwan	0.73
National Origin	Dummy variables for 24 national origin groups=1 based on immigrant's country of birth	-	Brazil	0.01	Mexico	0.40
Age at U.S. entry	Continuous variable that indicates the age at which immigrant entered the USA	22.10	Canada	17.81	Peru	25.29
Years in USA	Continuous variable that expresses the difference between immigrant's current age and age of U.S. entry	17.40	Honduras	14.39	Canada	25.85
National Origin	Dummy variables for 24 national origin groups=1 according to individual's country of birth, 2000	-	Brazil	0.01	Mexico	0.40
Sex	Dummy variable=1 if sex is male	0.51	Korea	0.40	Pakistan	0.61
<b>LM Aggregate Context</b>						
LM Group Size, 1995	(natural logs used in analysis) Count of each group in each LM in 1995.	380,411	<u>LoC_LoG</u>	<u>LoC_HiG</u>	<u>HiC_HiG</u>	<u>HiC_LoG</u>
LM 1990-2000 Employment Change	Percent change in Native-born employment between 1990 and 2000 for each LM.	1.45	4,754	12,145	149,708	694,642
LM Average 1990 Wage	Mean annual wage income for those who worked at least 45 weeks in 1989.	41,241	5.18	10.98	4.17	-3.62
LM Average Rent	Mean monthly rent from 1990 Census	633	37,484	35,544	41,321	43,159
			534	498	620	706

**Appendix D. Group-Specific Logit Regressions of Labor Market Migration on Group Composition, Growth and Size Contexts; Economic Context; and Individual Characteristics (odds ratios)**

	Mexico	Cuba	Salvador	DR	Colombia	Guatemala	Ecuador	Honduras	Peru	Nicaragua	Brazil	Philippines
<b>Origin Group Context:</b>												
LM low composition/low growth	0.799	0.777*	1.037	1.782	1.057	1.047	1.083	1.195	0.907	0.909	1.469*	1.057
LM low composition/high growth	0.824	0.699*	1.001	1.363	1.518*	0.889	0.971	1.128	0.886	0.735	1.256	1.139
LM high composition/high growth	0.787**	0.535*	0.895	0.910	0.842	0.882	0.815	0.891	0.821*	0.803	0.939	1.009
LM Group Size (log)	1.125	1.035	5.817***	0.694	1.095	0.417	0.788	1.280	2.059	8.917***	2.972	1.173
LM Group Size Squared	1.020***	0.997	1.016*	1.041	0.996	1.039***	1.030**	1.023	1.003	0.995	0.996	1.005
<b>Economic Context:</b>												
LM Average Wage (log)	6.035**	0.558	7.674	6.112	0.218	1.916	1.204	0.879	0.670	1.298	0.469	0.957
LM NB Employment Change, 1990-2000 (log)	1.671	0.834	2.215	0.110	0.607	0.389	0.209	0.964	1.341	5.830*	1.495	0.791
<b>Individual Characteristics:</b>												
College Education or more	3.802***	1.336	5.096***	1.375	1.753**	4.086***	0.990	3.170***	2.116**	3.193***	1.608	1.962***
Male	1.276***	1.138**	1.127***	1.145***	1.104***	1.176***	0.968	1.267***	1.175**	1.054	1.115*	0.981
Age at U.S. arrival	0.973***	0.970***	0.977***	0.983***	0.967***	0.980***	0.978***	0.974***	0.968***	0.969***	0.973***	0.948***
Years in U.S.	0.938***	0.934***	0.918***	0.990	0.932***	0.932***	0.992	0.957**	0.931***	0.926***	0.942***	0.923***
Years in U.S. squared	1.001***	1.001**	1.001***	1.000	1.001**	1.001*	1.000	1.000	1.001**	1.001**	1.000	1.001***
Citizen	0.826***	0.700***	0.863**	0.890	0.853**	0.899	0.954	0.751***	0.820**	0.930	0.971	0.739***
Speaks English only or very well	1.063**	1.018	1.117*	1.244***	1.209***	1.096	1.233*	1.218***	1.381***	1.307***	1.319***	1.332***
<b>Interaction Terms:</b>												
LM Wages X Group Size	0.795***	0.964	0.566***	0.596*	1.072	0.797	0.675*	0.859	0.811	0.710*	0.877	0.836*
LM Employment Change X Group Size	0.900**	0.958	0.691***	1.051	0.929	1.106	1.025	0.876	0.834	0.621***	0.768	0.960
College (individual) * LM Group Size	0.927***	1.003	0.881*	1.005	0.976	0.910*	1.040	0.912**	0.962	0.930*	1.009	0.950***
Observations	678,000	50,783	67,791	49,984	32,670	35,564	21,491	19,069	19,899	16,017	11,081	108,460
Log Likelihood	-199560***	-12404***	-17165***	-12193***	-10336***	-10593***	-4570***	-6286***	-5396***	-3882	-3875	-32657

## Appendix D (continued)

	China	India	Vietnam	Korea	Taiwan	Iran	Pakistan	Laos	Jamaica	Haiti	Guyana	Canada
Origin Group Context:												
LM low composition/low growth	1.337	1.157	0.978	0.994	0.936	1.056	1.391*	0.912	1.781***	1.514	1.532*	0.997
L M low composition/high growth	1.373*	0.978	0.895	0.997	0.767*	0.939	1.463**	0.874	2.005***	1.514	1.567*	1.178
LM high composition/high growth	1.350*	0.843	0.768**	0.830**	0.716*	0.965	1.102	0.839	1.117	0.965	1.557**	1.056
LM Group Size (log)	2.619	2.357	1.023	0.728	1.264	0.601	3.024	5.209	0.280*	0.249*	1.356	0.980
LM Group Size Squared	0.998	0.986	1.021*	0.977***	0.991	0.980*	0.990	1.035*	0.991	1.031*	1.006	0.999
Economic Context:												
LM Average Wage (log)	0.398	0.773	3.785	0.298	5.083	0.244	0.0341*	10.840	0.001***	0.071	0.105	0.939
LM NB Employment Change, 1990-2000 (log)	1.935	2.103	0.468	0.227***	0.418	0.343	3.472	2.080	0.176	0.0938*	0.500	1.165
Individual Characteristics: <sup>1</sup>												
College Education or more	3.566***	3.131***	7.577***	4.114***	2.725***	1.235	1.515	5.815***	3.232***	3.670***	1.875*	2.930***
Male	1.093*	1.285***	1.080**	1.064*	1.136***	1.111*	1.084*	1.075*	0.990	1.092**	1.011	1.018
Age at U.S. arrival	0.957***	0.937***	0.955***	0.941***	0.924***	0.945***	0.961***	0.965***	0.954***	0.962***	0.958***	0.958***
Years in U.S.	0.910***	0.869***	0.939***	0.914***	0.892***	0.919***	0.909***	0.911***	0.946***	0.938***	0.977	0.907***
Years in U.S. squared	1.000	1.002***	1.001	1.000**	1.001*	1.001*	1.001	1.001**	1.000	1.000	1.000	1.001***
Citizen	0.532***	0.649***	0.738***	0.833***	0.660***	0.744***	0.771***	0.776***	0.919	0.820**	0.711***	0.928*
Speaks English only or very well	1.306***	1.200***	1.196***	1.151**	0.947	1.154*	1.401***	1.117	1.205	0.991	1.115	1.332**
Interaction Terms:												
LM Wages X Group Size	0.744	0.850	0.660**	0.947	0.631*	1.079	1.080	0.529**	1.937***	1.178	0.875	1.004
LM Employment Change X Group Size	0.829	0.861	1.005	1.158**	1.067	1.106	0.742*	0.700	1.111	1.138	0.903	0.977
College (individual) * LM Group Size	0.970	0.947*	0.864***	0.912***	0.954	1.040	1.022	0.841***	0.926**	0.905**	0.971	0.924**
Observations	78,223	68,616	84,844	60,881	26,886	22,882	15,179	19,636	40,028	30,182	16,172	51,622
Log Likelihood	-23693	-27993	-26258	-21837	-9192	-6554	-6011	-7820	-10991	-7835	-3538	-21109

\*\*\* p<0.001, \*\* p<0.01, \* p<0.05