Immigration, internal migration and compositional change in foreign-born populations

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**********DRAFT – PLEASE DO NOT CITE **********

Introduction

The geographic diversification of immigration was one of the most important migration trends in the United States in the late 1990s and early 2000s (Massey 2008). The trend of rapid increases in immigration to states with little recent experience of international migration continues to have important implications, as states such as Alabama, Arizona, North Carolina, and Utah struggle with integration of foreign-born populations and break ground with new immigration legislation (Dondero and Muller 2012; Singer, Hardwick, and Brettell 2008; Stewart and Jameson 2013; Filindra and Kovacs 2012). While recent immigration trends have been well documented, comparatively less attention has been paid to geographic variation in the composition of immigrant populations. Broadly speaking, the foreign-born population in new destination states is younger and includes a higher proportion of men than the foreign-born population in traditional destination states (Bump, Lowell, and Pettersen 2005) However, these general findings mask substantial differences within the broad category of new destinations. In particular, the male-heavy character of new destinations is characteristic of only of new destinations in the south and Midwest (Hofmann and Reiter nd).

In this paper, we examine how these geographic patterns arise. Specifically, we seek to answer two research questions: 1) What roles do domestic and international migration play in shaping state-level compositional differences in the foreign-born population? 2) Are gender and age selectivity in internal migration flows similar across native and foreign-born populations? The answers to these questions have implications

for understanding similarities and differences between the migration of the foreign- and native-born, as well as for understanding heterogeneity among new destination states.

Literature review

Much of the literature on new destinations has focused on changes in the composition and geographic distribution of the foreign-born population between the 1980 or 1990 and 2000 Censuses (Bump, Lowell, and Pettersen 2005; Lichter and Johnson 2009; Light and von Scheven 2008; Massey 2008). This research demonstrates that nearly three-quarters of the foreign-born population lived in six traditional destination states (California, Florida, Illinois, New Jersey, New York and Texas) in 1990, while these states accounted for only 68 percent of the foreign-born population by 2000. At the same time, 19 new destination states (Alabama, Arizona, Arkansas, Colorado, Delaware, Georgia, Idaho, Iowa, Kansas, Kentucky, Minnesota, Nebraska, Nevada, North Carolina, Oklahoma, Oregon, South Carolina, Tennessee, Utah and Washington) saw the size of their foreign-born population increase by 100 percent or more (Bump, Lowell, and Pettersen 2005). New destinations attract somewhat different immigrant populations, compared to traditional destination states. The geographic diversification of immigration is driven largely by immigrants from Latin American countries, with Asian immigrants remaining heavily concentrated in traditional gateway states (Massey and Capoferro 2008). In addition, immigrant populations in new destination states are younger and more heavily male than immigrant populations in traditional destinations (Bump, Lowell, and Pettersen 2005).

This broad comparison between new and traditional destinations masks a great deal of regional and local variation. In a study of Mexican immigration, Risomena and Massey (2012) suggest a distinction between "new" and "re-emerging" destination states. Based on Singer's (2004) classification of U.S. metropolitan areas, Risomena and Massey's classification splits previously-identified new destinations states according to whether the state included a Mexican-origin population in the early 20th century (Riosmena and Massey 2012, 7). They find differing patterns of selectivity by both geography and education according to migrants' destinations within the U.S.

Both new immigration and secondary migration within the United States have helped shape the geographic diversification of the foreign-born population. Bump and colleagues find that the majority of growth of the foreign-born population in new destination states comes from international migration, with a smaller share attributed to secondary migration of foreign-born within the U.S. (Bump, Lowell, and Pettersen 2005). Other research, however, has shown that immigrants have high rates of mobility both into and out of new destinations, although there is little movement from new destinations back to traditional gateways (Donato et al. 2008; Kritz, Gurak, and Lee 2013). Patterns from the early 2000s may be changing, as economic crisis decreases internal mobility among both natives and immigrants (Ellis, Wright, and Townley 2014).

Domestic migration of immigrants also plays a role in shaping the characteristics of foreign-born populations. Lichter and Johnson find that Hispanic migrants to new destinations are less likely than non-movers to be U.S. citizens, and argue also that domestic migrants are positively selected on human capital, influencing the population of secondary destinations (Lichter and Johnson 2009). Looking at the immigrant population

as a whole, Hempstead argues that both international and domestic migration flows serve to make the foreign-born populations in both traditional and non-traditional destinations more demographically similar (Hempstead 2007).

The question of how the domestic migration patterns of foreign born differ from the migration patterns of natives has received limited attention. Ellis and colleagues (2014) find that since the 1990s, immigrants and native-born have been drawn to a similar set of metropolitan areas. However, this research did not compare the age and sex compositions of foreign-born versus native-born migrants.

In the remainder of this paper, we will briefly describe compositional differences in foreign-born populations in new destination states. We will then examine flows of foreign-born migrants, both into and within the United States, from three time periods, in order to identify the specific migration streams that explain these compositional differences. Finally, we conduct similar analyses for internal migration among the native-born population, in order to compare patterns.

Data and methods

Our data sources for this paper are the 1990 Census 5% Public Use Microdata Sample (PUMS), the 2000 5% PUMS, and the 2007-2011 American Community Survey (ACS) PUMS. All data was accessed from the Minnesota Population Center's Integrated Public Use Microdata Series (Ruggles et al. 2010). In our analyses of the 1990 and 2000 Census data, we limited our sample to individuals aged 5 and over who had moved internationally or between states in the previous 5 years. Analyses of the 2007-2011 ACS data are limited to individuals aged 1 and over who had moved internationally or between

states in the previous 1 year. For all three data sets, we present data weighted using the "perwt" variable provided by IPUMS. However, the difference in time frame and in the way that migration is measured limits the comparability between the ACS and Census data, with Census data capturing a much larger magnitude of migration. For this reason, we focus on the relative size of migration flows and the proportion of men and women of different age groups within specific flows, rather than on absolute numbers of migrants.

Table 1. Classification of U.S. States

Traditional Destinations	**Re-emerging destinations**	**New destinations**	**Others**
California	Arizona	Alabama	Louisiana
Florida	Colorado	Arkansas	Maine
Illinois	Idaho	Delaware	Maryland
Massachusetts	Minnesota	Georgia	Michigan
New York	Nevada	Indiana	Missouri
New Jersey	Oregon	Iowa	Montana
Connecticut	Utah	Kansas	New Hampshire
Texas	Washington	Kentucky	New Mexico
		Mississippi	North Dakota
		Nebraska	Ohio
		North Carolina	Pennsylvania
		Oklahoma	Rhode Island
		South Carolina	South Dakota
		Tennessee	Vermont
			Virginia
			West Virginia
			Wisconsin
			Wyoming

Roughly following Risomena and Massey (2012), we classify both origin and destination states into traditional destinations, re-emerging destinations, new destinations, and other states (for a listing of states in each category, see Table 1). Traditional states are those that include at least one metropolitan area classified as a continuous gateway (Singer 2004). Re-emerging and new destination states experienced growth of over 100

percent in the foreign-born population between 1990 and 2000, but re-emerging destinations included a significant foreign-born population in 1900, while new destinations included fewer than 5 percent foreign-born residents in 1900. To describe migrants' places of origin, we use the additional classification of all areas outside of the U.S., including Puerto Rico and other U.S. territories.

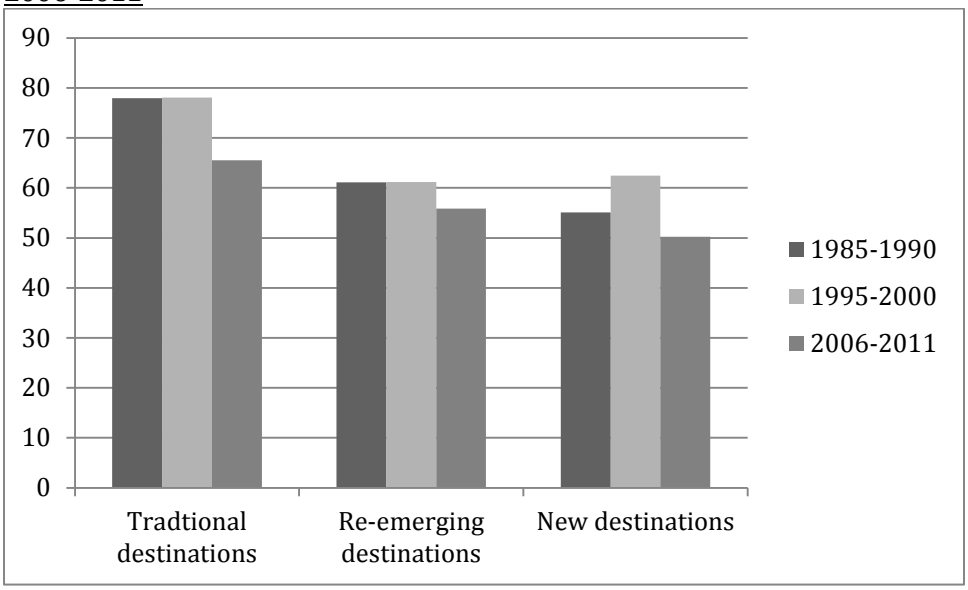
Domestic and international migration of the foreign- and native born

Data from the 2007-11 ACS shows that the composition of the foreign-born population varies substantially by state of residence. In new destination states, there are 109.8 foreign-born men for every 100 foreign-born women, compared to a sex ratio of 95.5 among foreign-born in traditional destination states and 97.6 in re-emerging destination states. Similarly, new destinations include a higher proportion of working age adults, with 73 percent of immigrants in the 15-50 age group, compared to 63.5% in traditional destinations and 68.2% in re-emerging destinations). Among the native-born population, variation in sex ratio and age composition across states is much smaller, with sex ratios ranging from 95.1 men for every hundred women in new destinations to 99.9 in re-emerging destinations.

Compositional differences in the foreign-born population across states must be a function of sex selection in international migration, domestic migration, or mortality, and the relatively young age of immigrant populations means that gendered mortality patterns are not likely to play a decisive role. Figure 1 shows that international and domestic migration both play substantial roles in shaping foreign-born populations, with the role of domestic migration potentially increasing over time. Traditional destinations receive the

vast majority of their migrants from abroad, ranging from just under 80 percent of all immigration in 1985-1990 to 65 percent in 2006-2011. New and re-emerging destinations, by contrast, receive 50 to 60 percent of their immigrants from abroad. Of the 50-60 percent of migrants to new and re-emerging destinations who come from other U.S. states, the great majority come from traditional destinations.

Figure 1. Percent of foreign-born immigration from abroad in 1985-1990, 1995-2000, and 2006-2011



Given the importance of both international and domestic migration in shaping foreign-born populations in the U.S., it is not surprising that variation in sex rations are evident in migrant flows. Table 2 shows the sex ratios of flows of foreign-born migrants into and between U.S. states, using 2000 Census data. Data from other time points are not presented here, but are quite similar. Among the foreign-born, men are substantially more migratory than women, and migration to new destination states is particularly dominated by men. Among immigrants from abroad, there are nearly 143 men for every 100 women, and the sex ratio for immigrants from traditional destinations is 132. Although out-migration from new destinations is also male dominated, these flows are small in number

and closer to balanced that immigrant flows. Immigration to traditional destinations is the most gender balanced, while re-emerging destinations fall in the middle. Place of origin seems to matter much less for gender selectivity than place of destination.

Table 2. Sex ratio of foreign-born migrant flows to U.S. states, 1995-2000

		Migration from:				
		Traditional destinations	Re-emerging destinations	New destinations	Other states	Abroad
Migration to:	Traditional destinations		106.3	113.2	102.0	107.8
	Re-emerging destinations	112.7		109.3	93.8	116.2
	New destinations	132.2	114.1		112.5	142.7
	Other states	108.5	98.8	104.6		104.63

Table 3. Sex ratio of native-born migrant flows to U.S. states, 1995-2000

	Migration from:					
Migration to:		Traditional destinations	Re-emerging destinations	New destinations	Other states	Abroad
	Traditional destinations		102.9	104.1	101.7	120.7
	Re-emerging destinations	104.5		105.2	104.6	135.0
	New destinations	101.7	102.1		101.1	122.5
	Other states	99.45	103.3	101.4		120.0

Comparable data for native-born migrants shows no such sex selectivity, as shown in Table 3. Although the sex ratios among native-born migrants also favor men, the sex difference is relatively small, except among the numerically small flows of U.S. natives moving from abroad. Table 3 shows no evidence that new destinations exert a unique pull on U.S.-born men. As other research has shown, both foreign-born and

native-born migrants are pulled to similar destinations within the U.S. (Ellis et al. 2014). However, the patterns of gender (and age) selectivity are substantially different among foreign-born migrants.

Specifics of state-to-state net flows

Up to this point, we have looked at only gross migrant flows. Because we included individuals who migrated from abroad, it was not possible to calculate net migration flows. Now, we exclude all migration from abroad, and look at net migration flows of foreign-born individuals among U.S. states. As noted above, new and re-emerging destination states receive 40 to 50 percent of their foreign-born immigration from other U.S. states, primarily from traditional destination states. Table 4 shows examples of the top 5 percent of all state-to-state net flows in 1985-1990, 1995-2000, and 2006-2011.

The outflow of foreign-born residents from traditional destination states began with outflows from New York, New Jersey, Illinois, and Texas. Most of these flows went to southeastern states such as Georgia and North Carolina, although there were also substantial flows to Arizona. California lost some foreign-born residents to the re-emerging states of the West, but was still gaining foreign-born residents from the rest of the U.S. In the 1995-2000 period, massive outflows from California had begun in earnest, with nearly every new and re-emerging destination state gaining substantial foreign-born population from California. Recently, the clear pattern of immigrants moving from traditional to new and re-emerging destinations, although still evident, has diminished.

Now, there are substantial flows of migrants within new destinations, into states in the "other" category, and from both new and traditional destinations into Texas.

Looking at the composition of these migration flows shows two distinct patterns: a temporal pattern and a geographic pattern. Over time, there is a tendency for migrant flows to become less male-dominated over time (see Figure 2). Flows out of traditional destinations that were evident in the 1990 Census data have tended to feminize over time. Although this is primarily driven by dramatic feminization of flows from California to Georgia, Florida to Georgia, and Illinois to Indiana, it is also evident in flows from California to Oregon, California to Utah, and New Jersey to North Carolina. Similarly, flows from traditional states that first appeared in the 2000 Census data also became more gender balanced in the 2006-2011 data. The sex ratio of net migration from California to Indiana dropped from 156 in 1995-2000 to 118 in 2006-2011; the sex ratio of net migration from California to Kansas dropped from 138 to 103; migration from Florida to North Carolina dropped from 186 to 117; and migration from New Jersey to Georgia dropped from 131 to 111.

Figure 2. Sex ratios of net migration flows between selected states

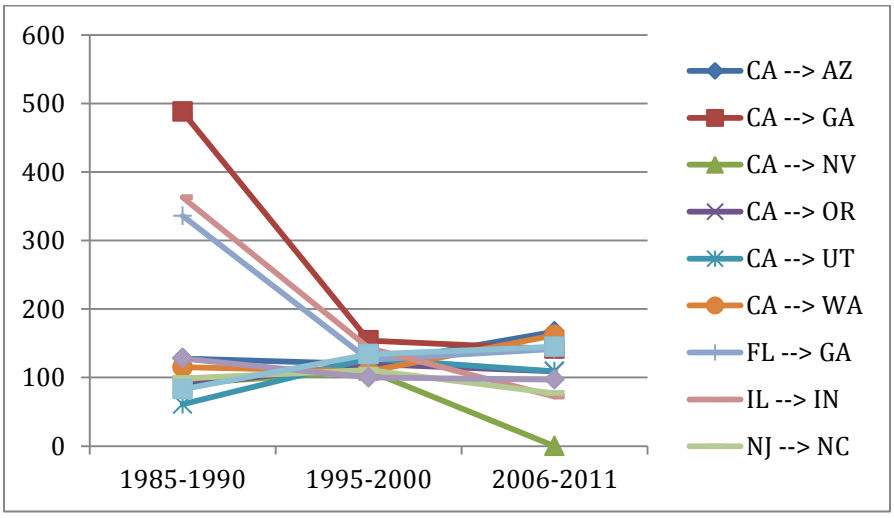


Table 4. Examples of key net migration flows, 1985-1990, 1995-2000, and 2006-2011

	1985-1990	1995-2000	2006-2011
Traditional to re-emerging	CA → AZ	CA→AZ	CA → AZ
		CA → CO	
		CA → ID	
		CA → MN	
	CA→NV	CA → NV	CA → NV
	CA → OR	CA → OR	CA → OR
	CA → UT	CA → UT	CA → UT
	CA → WA	CA → WA	CA → WA
			FL → AZ
	IL → AZ	IL → AZ	
	NY → AZ	NY → AZ	
		NY → MN	
			NY → WA
		TX → CO	
	TX → WA		TX → WA
Traditional to new		CA → AR	
	CA → GA	CA → GA	CA → GA
		CA → IN	CA → IN
		CA →IA	
		CA → KS	
		CA → NE	
	CA → NC	CA → NC	
			CA → OK
		CA → SC	
		CA → TN	
			FL → AL
	FL → GA	FL → GA	FL → GA
		FL → NC	FL → NC
			FL → OK
			FL → TN
			FL → SC
	IL → GA	IL → GA	
	IL → IN	IL → IN	IL → IN
		NJ → GA	NJ → GA
	NJ → NC	NJ → NC	NJ → NC
	NY → GA	NY → GA	NY → GA
	NY → NC	NY → NC	NY → NC
	NY → SC		
	TX → GA	TX → GA	
	TX → NC	TX → NC	

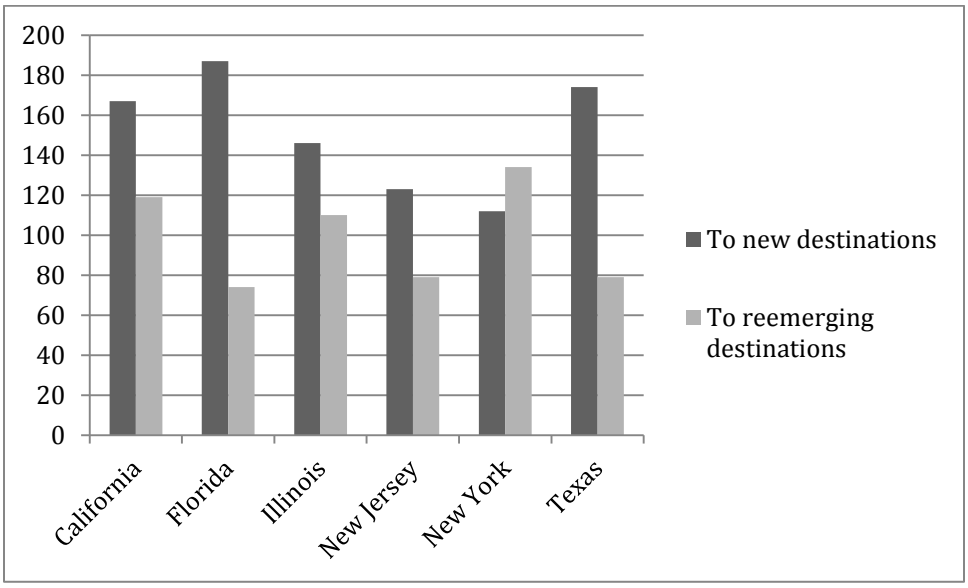
There are a number of notable exceptions to the pattern. The sex ratios of net migrants from California to Arizona and Washington—tow of the most important destinations for foreign-born leaving California—have increased over time. The sex ratio of net migrants to Arizona increased from 120 in 1995-2000 to 167 in 2006-2011, in Washington the sex ratio increased from 109 to 162. Similarly, the sex ratio of net migrants from New York to North Carolina, also a very important flow, increased from 83 in 1985-1990 to 134 in 1995-2000, then to 145 in 2006-2011.

Geographically, it is important to note the importance of California in shaping national-level migration patterns. During 1995-2000, the peak period for internal migration of the foreign-born, California lost 190,141 net migrants to new and re-emerging destinations, more than the net loss of all other traditional states combined. The category-level comparison of migrant sex ratios shown in Table 2 above indicate that destination matters much more than origin in determining the sex composition of migrant flows. In the case of domestic migration, this is true because California so dominates as the origin of migrant flows, but other origin states have their own distinct gender patterns.

As Figure 3 shows, California and Illinois exhibit similar patterns, with net migration flows to both new and re-emerging destinations male dominated, but flows to new destinations substantially more male dominated (an additional 45-55 men per 100 women). Flows from Florida, New Jersey, and Texas have an even greater gender imbalance, with flows to new destinations including 120 to 180 men for every hundred women, but flows to re-emerging destinations including on 75 to 80 men for every hundred women. New York's pattern is unique, with flows from New York to re-

emerging destinations actually being slightly more male dominated than flows to new destinations.

Figure 3. Sex ratio of net migrant flows from selected traditional destinations, 1995-2000



Discussion and conclusions

This research highlights a key dimension in which foreign-born migration in the U.S. is unlike native born migration: gender selectivity. Foreign-born migration, compared to native-born migration, is more dominated by men (and by working-age adults). New destination states, located in the Southeast and Midwest, exert a unique pull on foreign-born men. The gender selectivity of foreign-born migration is not static, however. Census and ACS data show some evidence that state-to-state flows become less male dominated over time, a finding that coincides with evidence that international immigration flows to the U.S. and Europe feminize as they mature (Castles and Miller 2009; Houstoun, Kramer, and Barrett 1984).

These broad patterns raise questions of why new destination states exert this unique pull on foreign-born men, and whether this male-dominated pattern of heavily

male-dominated migration to new destination states is likely to continue. Further research will need to explore the factors that pull men versus women to specific U.S. destinations. One possible explanation is geographic variation in the job sectors where immigrants work. Immigrants tend to work in sectors segregated by both ethnicity and gender (Moya 2007). In a recent report, the Pew Research Center identified the top industries for undocumented immigrants in each state. In new destination states, the top industry identified by Pew is either construction or manufacturing, while in most re-emerging destinations, the top industry is leisure and hospitality (Passel and Cohn 2015). These types of labor market differences could play an important role in explaining why some states are more attractive to men.

Another potential explanation for gender selection in migration is family migration strategies. Research on Mexican immigrants, in particular, shows that households typically send a young male member as their initial migrant (Sana and Massey 2005). Women and other family members, if they migrate at all, migrate to join their male relative, typically with the intention of settling more permanently in the U.S. (Hondagneu-Sotelo 1994). Although the IPUMS data do not allow an effective test of this, the preponderance of male migration to new destinations may indicate that these states are attractive destinations for independent male migrants, but not particularly attractive to migrants who wish to settle long-term as families.

Although our analyses demonstrate intriguing broad patterns, we also found many exceptions to these patterns. These exceptions may be related to two major limitations of this research: our treatment of both states and immigrants as homogenous. Much of the research on new destinations uses state-level analyses, and the evidence of gender

selectivity shows that there is meaningful variation at the state level. However, there may be more details hidden at the sub-state level. Our classification of states into traditional, new, and re-emerging destinations is roughly based on a classification system developed by Singer (2004), but Singer's initial classification applied to metropolitan areas, not to entire states, and some states included gateways of multiple types. For example, in Texas, Houston was classified as an immigrant destination dating back to WWII, Dallas as a new destination, and Austin as a low-immigration destination (Singer 2004, 5). The significant differences between California, which includes multiple gateway cities of long standing, and other traditional destinations, which contain only one main gateway city, may be due in part to the level of analysis that we selected.

We also fail to distinguish between different groups of immigrants. Due to their numeric dominance in U.S. immigration, Mexicans likely drive the gendered migration patterns that we observe. However, exceptions to the patterns may be explained by the participation of immigrants from other regions of the world, who have different motivations for migration and experience different push and pull factors. Some state-to-state flows of foreign-born are so small that trying to further break down the foreign-born population by country of origin is problematic. Nevertheless, in future research we plan to examine the role of Mexican and other immigrant groups in at least the larger state-to-state migrant flows. By breaking immigrants down by origin, and analyzing geographic units smaller than states, we will have a better understanding of gendered migration patterns in the United States.

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