

Asian and Hispanic Settlement Patterns in the Counties of North Carolina, 2000

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The Southeastern United States has received numerous Asian and Hispanic migrants since the 1980s. This paper examines the distribution of six Asian and Hispanic ethnic groups in North Carolina counties in 2000. Aggregate data at the national level pertaining to the educational attainment of each of the ethnic groups is used to provide insight about why certain ethnic groups are attracted to certain North Carolina counties. Asian groups were over-concentrated in the Raleigh-Durham-Chapel Hill and Charlotte metropolitan areas in comparison to their Hispanic counterparts. In these metropolitan areas are found the largest of North Carolina's universities, which attract many Asian students and provide the largest numbers of professional employment opportunities. Given that Asians have much higher educational levels than their Hispanic counterparts, it is not surprising that they are over-concentrated in the Raleigh and Charlotte Areas. The distribution of Mexicans and Central Americans was more dispersed throughout North Carolina because of the employment opportunities provided by the agricultural and meat-processing industries available to these groups. Puerto Ricans have long used the military as a vehicle to upward mobility and explains the over-concentration of this group in counties with a military base.

Introduction

A major change in immigration flows to the United States was underway by the 1960s as Latin American and Asian countries surpassed European countries as the major contributors of immigrants (Massey, 2001). Asian and Hispanic immigrants, as well as native-born Asians and Hispanics, are currently concentrated in six states (California, Florida, Texas, New York, New Jersey, and Illinois), but this pattern is changing. Since the 1980s, tens of thousands of Mexicans, Central Americans, and Vietnamese have settled in the Southeast to take advantage of low-skilled, low-wage occupations in carpet manufacturing (Hernandez-Leon and Zuniga, 2000), the poultry industry (Broadway, 1995; Horowitz and Miller, 1999) and agriculture (Fink, 2003). Asian Indians, Chinese, and other Asian groups have also moved to the Southeast for employment and educa-

tional opportunities in the rapidly growing cities of the Southeast such as Charlotte and Atlanta (Godziak, 2005). Today the South has become a multi-cultural region and this trend is likely to continue over the next century (Hartshorne, 1997; Shelley and Webster, 1998; Schimdt, 2003; Frazier, Margal, and Tettey-Fio, 2003).

Bump, Lowell, and Petterson (2005) categorized North Carolina as a new immigrant settlement region because during the 1990s North Carolina led the country with the highest percentage increase in Hispanic immigrants and was second only to Georgia in its percentage growth of Asian immigrants. Bailey (2005) noted that the major areas of settlement for recent immigrants to North Carolina during the 1990s were in the Triad (Winston-Salem, and Greensboro-High Point); the Research Triangle (Raleigh-Durham-Chapel Hill); and the cities of Char-

lotte and Asheville. Even though North Carolina has become a major immigrant growth pole, not all of the growth of the Hispanic and Asian population can be attributed to immigration. Internal migration of U.S.-born Hispanics and Asians from other regions of the U.S. has become an important generator of growth for these two populations in Southern states (Pandit, 1997). In addition, immigrants/migrants tend to be in the prime-child bearing years and tend to have higher birth rates than their non-immigrant white and black counterparts, which contribute to the rapid growth of both Hispanics and Asians (Durand, Telles, and Flashman, 2006; and U.S. Bureau of the Census, 2004a).

The purpose of this paper is to compare and contrast the distribution of six ethnic/racial subgroups of Hispanics and Asians in the 100 counties of North Carolina in 2000. The distribution of the non-immigrant white and black populations is used as a reference group in the comparison. The human capital model is used to explain differences in the distribution between the Asian and Hispanic groups. Human capital is defined as the assortment of skills and educational attainment that an individual brings to the labor market.

The paper is divided into five parts. First, the data sources and the reasoning behind the selection of the ethnic/racial groups are explained. Second, an overview of the physical and socioeconomic regions of North Carolina is discussed. Theoretical concerns relating to migration are addressed in the third section. In the fourth section, the distribution of the ethnic/racial groups is examined and discussed in reference to the human capital model. Finally, the conclusion suggests avenues for future research.

Data Sources and the Selection of the Six Groups

The 1990 and 2000 Censuses of Population Summary Tape Files 3 for North Carolina were used to gather the data for the number of individuals in each ethnic/racial group and for preparation of the maps. Data pertaining to the human capital or educational levels of the groups came from the Special Reports for Asians and

Hispanics (U.S. Bureau of the Census 2004a and 2004b).

Three Hispanic (Mexican, Central American, and Puerto Rican) and three Asian (Vietnamese, Asian Indian, and Chinese) groups were chosen for this descriptive analysis of their distribution in North Carolina. Each of the groups included in the analysis had at least 1,000 individuals in North Carolina in 1990 and experienced a 100.0 percent or greater population growth rate between 1990 and 2000. Other immigrant groups with a small 1990 base population, a small numerical increase during the 1990s, and thus a large percentage gain were not included in the analysis.

As a departure point for this study, the growth of the six ethnic/racial groups in North Carolina is considered (Figure 1). An examination of the change by individual counties would be cumbersome, although the growth and ethnic composition of individual counties cannot be ignored. However, the consideration of the state as a whole provides a synoptic view of these phenomena.

The Mexican population had the highest growth rate (759.9 percent) during the decade. North Carolina gained more than 200,000 Mexicans during the 1990s through the combined processes of immigration, internal migration, and natural increase. The 1990 census did not disaggregate Central Americans, so the "Other Hispanics" category, which was used for both the 1990 and 2000 Censuses, showed a growth rate of 265.2 percent. However, the Central American growth rate was probably higher than this combined figure given the recent influx of Central Americans. The Puerto Rican population grew most slowly (relative to the other Hispanic groups), but still increased by 154.8 percent.

The number of Asians in North Carolina is about one third that of Hispanics (111,817 versus 378,963, respectively, or 29.5 percent), although the Vietnamese population grew by 199.3 percent, the Indian population by 166.0 percent and Chinese by 103.4 percent. As a comparison, the non-Hispanic white and black populations grew by 13.6 and 15.9 percent, respectively.

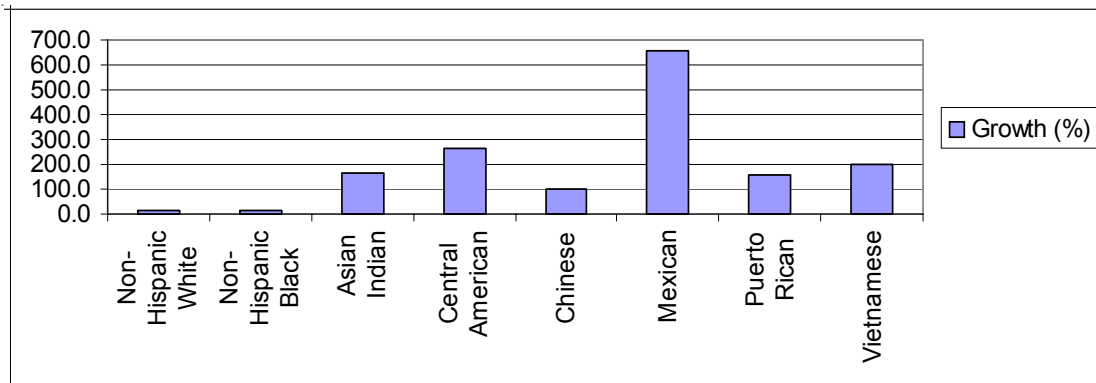


Figure 1. Percent Growth of Select Population in North Carolina, 1990-2000

Overview of North Carolina’s Regions

Ole Gade (1996) grouped North Carolina’s 100 counties into four categories based on the physical location and their social and economic characteristics. These were the Piedmont, Mountains, Coastal Plain, and Tidewater Regions (Figure 2). The Piedmont has 34 counties and five metropolitan regions (Charlotte, Raleigh-Durham-Chapel Hill, Greensboro-High Point, Winston-Salem, and Hickory-Lenoir-Morganton). The region is noted for its concentration of manufacturing and high-technology industries and has the highest socio-economic characteristics, as measured by educational levels of the population and per capita incomes, of North Carolina. Its rapid growth began in the 1960s as individuals from the Northeast and Midwest came to the South to escape the deindustrialization process that was underway in the manufacturing belt, commonly referred to as the rust belt phenomenon (Greenwood, 1988). The Raleigh-Durham-Chapel Hill area contains the Research Triangle, several renowned universities, and a high percentage of people employed in various professions. Greensboro-High Point and Winston-Salem also have several universities and a high percentage of that labor force is also engaged in professions. The occupational structure of Hickory-Lenoir-Morganton is manufacturing-based, while Charlotte has a more diversified economic structure (U.S. Department of Labor, 2006).

The Coastal Plain (23 counties), also known as the Eastern Agricultural Zone, contained only one

small metropolitan area in 1990 (Wilmington), but had three small cities, which by 2000 had attained status as metropolitan areas (Fayetteville, Goldsboro, and Wilmington). Socio-economic status in this region ranks second to that of the Piedmont. Non-metropolitan counties in this region are noted for agriculture and meat-processing facilities.

The western Mountain Region (25 counties) is relatively isolated and has some of North Carolina’s poorest counties, Buncombe, where Asheville is located, being an exception. However, it is noted for its natural beauty and as a tourist/recreational zone as well as a retirement haven. Only one small metropolitan region, Asheville, is located within the region. This zone has long maintained an insular mountain culture comprised overwhelmingly of white ethnic groups. The Tidewater Zone (18 counties), although possessing the great tourist appeal of the Atlantic beaches on the famous barrier islands, contains several counties that are among the poorest in North Carolina. Access is also a problem for the Tidewater Region, which is not well connected by highway, rail or air, with other regions of North Carolina.

Theoretical Concerns

Macroeconomic theories of migration assume that migration streams will flow from low-wage regions to high-wage regions (Harris and Todaro, 1970; Ritchey, 1976). Since the 1960s, the United States, a

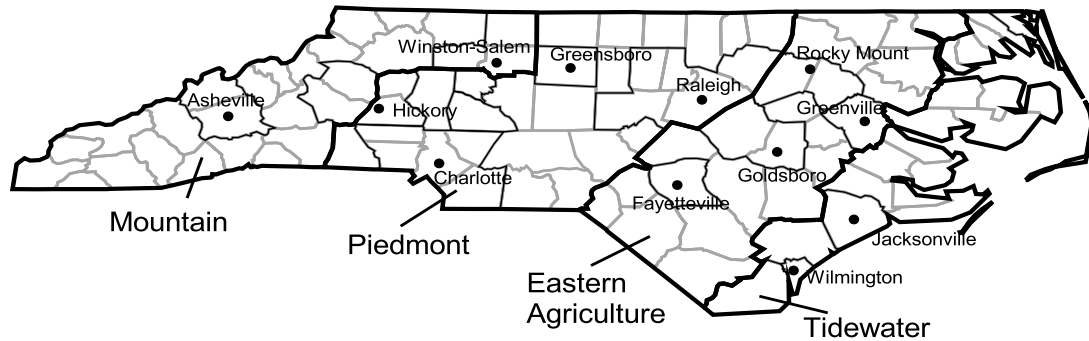


Figure 2. North Carolina's Regions and metropolitan areas.

high wage region, has drawn a greater percentage of its immigrants from low-wage regions such as Latin America and Asia (Massey, 2001). The idea that the basic motive for migration revolves around economic incentives originated with Ravenstein (1885) and his *laws of migration*, a proposed theory about human migration. Lee (1966) further developed migration theory by focusing on push and pull factors related to migration. Push factors expel individuals from one region while pull factors attract them to another region. From an economic perspective, poverty and unemployment at the origin may push a migrant from the source while higher wages and job opportunities may pull an individual to a destination.

Although macroeconomic theories are important in modeling migration flows, individual motives, or microeconomics, should also be considered when examining the rationale for migration. Sjaastad (1962) stated that the act of migration entails a calculus of costs and benefits. The potential migrant must weigh not only the cost of making a move but also the probability of finding employment, as well as the potential wages to be earned over a specific period of time.

Economists have introduced the concept of human capital (Becker, 1965; Schultz, 1970), which is an array of skills, on-the-job training, and educational attainment that makes an individual competitive in the labor market. Individuals who invest in education and receive on-the-job training early in their careers are more likely to achieve greater mon-

etary gains over their work lives. Sjaastad (1962) provides an important conceptual link between migration and human capital and states that migration is not a random behavior and thus does not draw from a cross-section of the population. Potential migrants are more likely to be drawn from the young adult years, because the amount of time to accrue benefits from the migration decision will be longer.

Borjas (1989) further explores the selective nature of migration by focusing on economic motives for immigration and found that immigrants can be either negatively or positively selected. Negatively selected immigrants earn low wages in the source country and also earn low wages in the destination country. Positively selected immigrants earn high wages in the source country and usually above average wages in the destination country. Although, Asian and Latin American immigrant flows are composed of both types of immigrants, the majority of Latin American immigrants are negatively selected, whereas a high percentage of Asian immigrants are positively selected.

This selectivity of migration explains why foreign-born as well as native-born Asians residing in the United States earn higher wages than their Latin American counterparts. The key to understanding these differentials in human capital relate to the idea of distance decay. According to Ravenstein's (1885) theory of migration, the more distant two places are from each other, the less the intensity the migration flow between those two places. Latin American

countries are closer to the United States than Asian countries and thus the costs associated with migration are less than the costs of migration from Asia. This reality provides the foundation for the disparities between human capital skills acquired by Asians versus Latin Americans. For the average Latin American, the journey to the U.S. is shorter than for the average Asian. Therefore, the vast disparity in standards of living between Latin American countries and the U.S., coupled with close proximity, allow individuals with limited economic resources and human capital skills to relocate with relative ease to the U.S. Although, standards of living in most Asian countries are also low, the costs associated with such a long-distance move preclude the exodus of many poorer individuals.

Distribution Patterns within North Carolina

Non-Hispanic white and Non-Hispanic black compared to Hispanic and Asian Groups

The large difference in raw numbers of each of the ethnic/racial groups dictated that percentages be used instead of actual numbers so that more accurate comparisons could be made between the distributional patterns within North Carolina for each of the ethnic/racial groups. Figures 3a-3h display the percentage of the total ethnic/racial group under consideration that is located within each of the counties of North Carolina.

A cursory view of the maps (Figures 3a-3h) shows that non-Hispanic whites and blacks are more dispersed throughout North Carolina than Hispanics (except Mexicans) and Asians. Only Wake County, where Raleigh is located, contained more than 7.8 percent of North Carolina's non-Hispanic white population, while Mecklenburg County, where Charlotte is located, had only 11.2 and 10.0 percent of North Carolina's non-Hispanic black and Mexican populations, respectively. Non-Hispanic whites and blacks have had the longest settlement history in North Carolina, and so it is not surprising that they have a more dispersed settlement pattern.¹ The sheer magnitude of the growth of the Mexican immigrant

population in comparison to that of the other immigrant groups may explain why they have become so dispersed throughout the state. North Carolina has long a long history of employing migratory Mexican agricultural labor (Johnson, Jr., Johnson-Webb and Farrell, Jr., 1999), many of whom now remain in North Carolina year round. At the other end of the spectrum, 32.6 percent of North Carolina's Vietnamese population lived in Mecklenburg County, 26.5 percent of the Chinese population lived in Wake County, and 24.9 percent of Puerto Ricans were found in Cumberland County, location of Fort Bragg.

A second difference between the reference populations and Hispanics and Asians is that non-Hispanic whites and blacks were less likely to reside in metropolitan areas than their Hispanic and Asian counterparts (Table 1). Unlike other regions of the U.S., the South has had a long history of non-Hispanic blacks residing in rural areas and probably explains why non-Hispanic blacks are not overrepresented in metropolitan areas.

Given the relatively recent migration of most of the Hispanic and Asian groups into North Carolina, it is not surprising that they are attracted to metropolitan areas. Difficulty with a new culture and language, and a host of other economic and social factors generally tend to concentrate immigrants in enclaves that provide a base from which they can become acclimated to their new surroundings (Allen and Turner, 2006). The largest metropolitan regions in the state (Charlotte and Raleigh) also provide the greatest number of non-agricultural employment opportunities, housing availability, and social contacts and thus attract more immigrants of all kinds.

Comparison of Hispanic and Asian Groups:

As stated previously, human capital is a set of characteristics that allows an individual to be competitive in the labor market. The most important measurement of human capital is the quantity and quality of education. It is well documented that most Asian ethnic groups have educational levels that exceed those of most Hispanic groups (Duncan, Hotz, and Trejo 2006; Sakamoto and Xie, 2006), and thus have higher human capital (Table 2). It is assumed that individuals from each immigrant group would

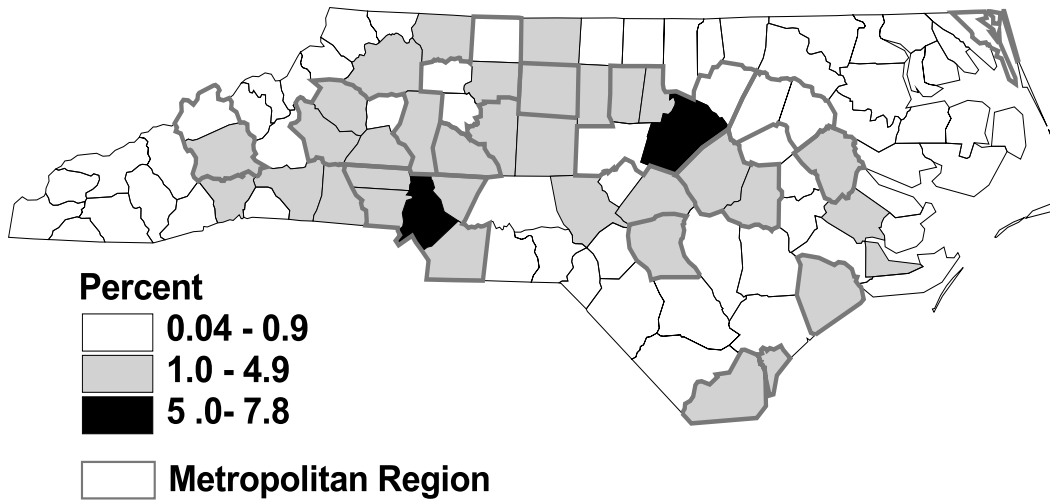


Figure 3a. Non-hispanic whites in North Carolina, 2000. (Source: Summary Tape Files. 2000. North Carolina. U.S. Bureau of the Census.)

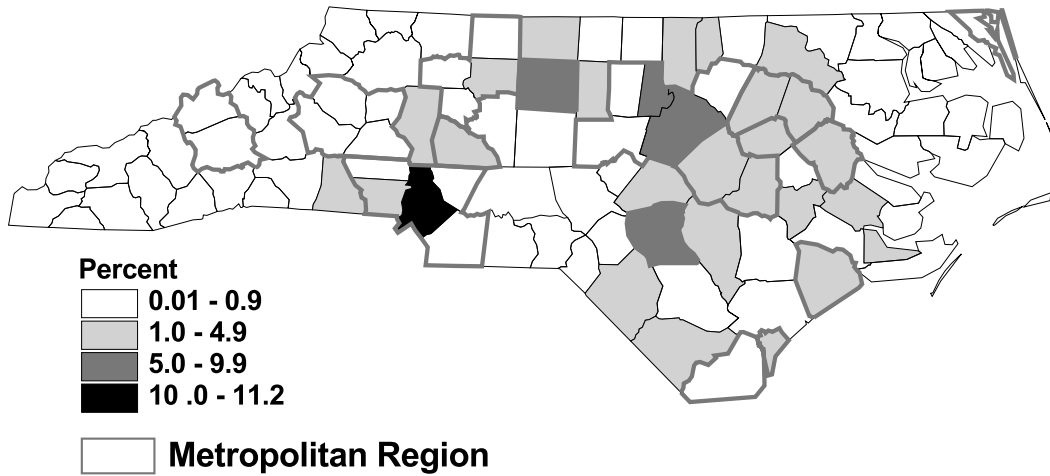


Figure 3b. Non-hispanic blacks in North Carolina, 2000. (Source: Summary Tape Files. 2000. North Carolina. U.S. Bureau of the Census.)

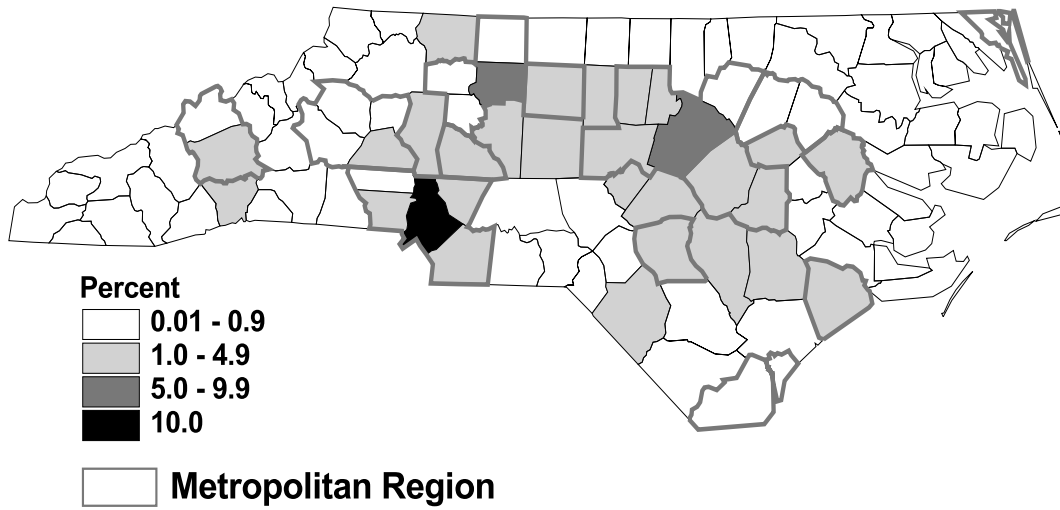


Figure 3c. Mexicans in North Carolina, 2000. (Source: Summary Tape Files. 2000. North Carolina. U.S. Bureau of the Census.)

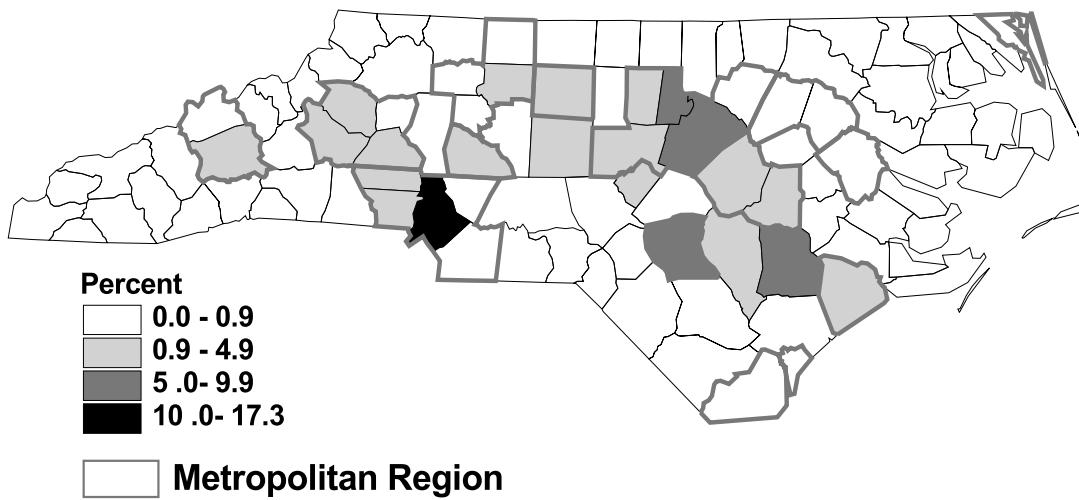


Figure 3d. Central Americans in North Carolina, 2000. (Source: Summary Tape Files. 2000. North Carolina. U.S. Bureau of the Census.)

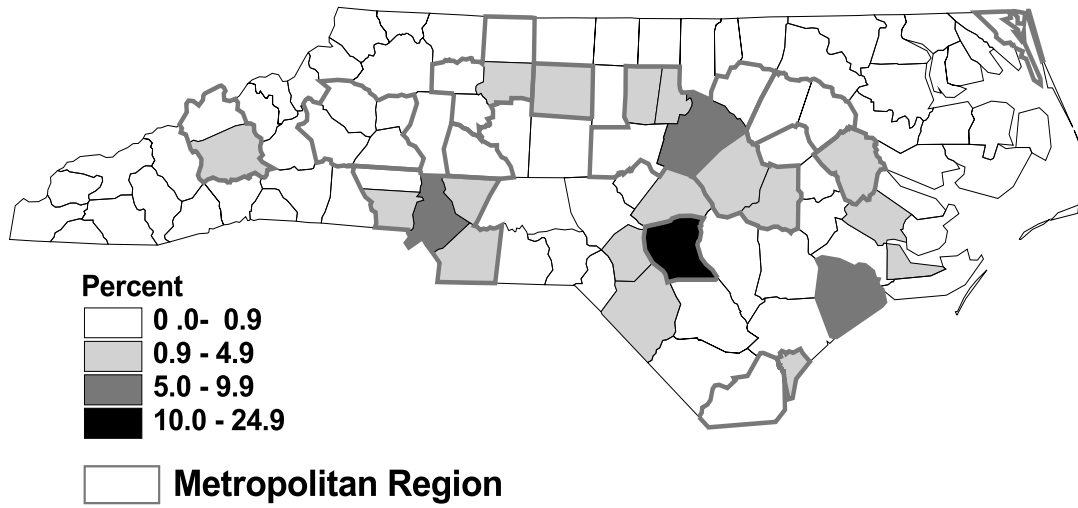


Figure 3e .Puerto Ricans in North Carolina, 2000. (Source: Summary Tape Files. 2000. North Carolina. U.S. Bureau of the Census.)

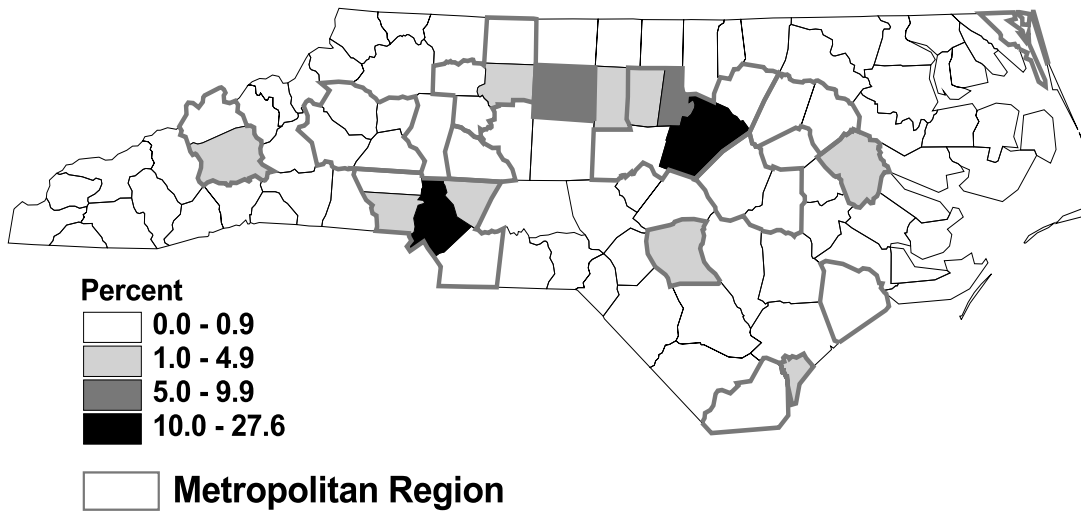


Figure 3f. Asian Indians in North Carolina, 2000. (Source: Summary Tape Files. 2000. North Carolina. U.S. Bureau of the Census.)

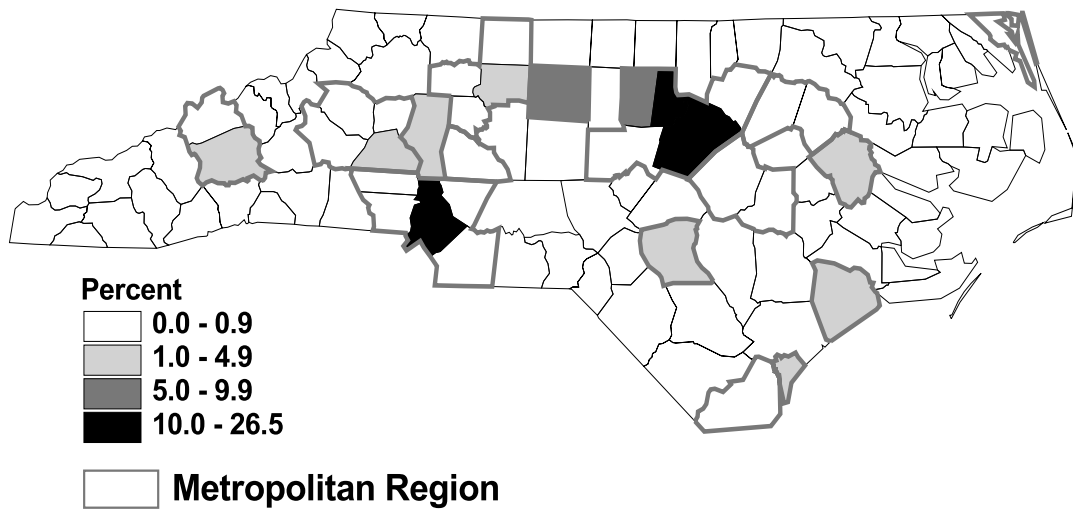


Figure 3g. Chinese in North Carolina, 2000. (Source: Summary Tape Files. 2000. North Carolina. U.S. Bureau of the Census.)

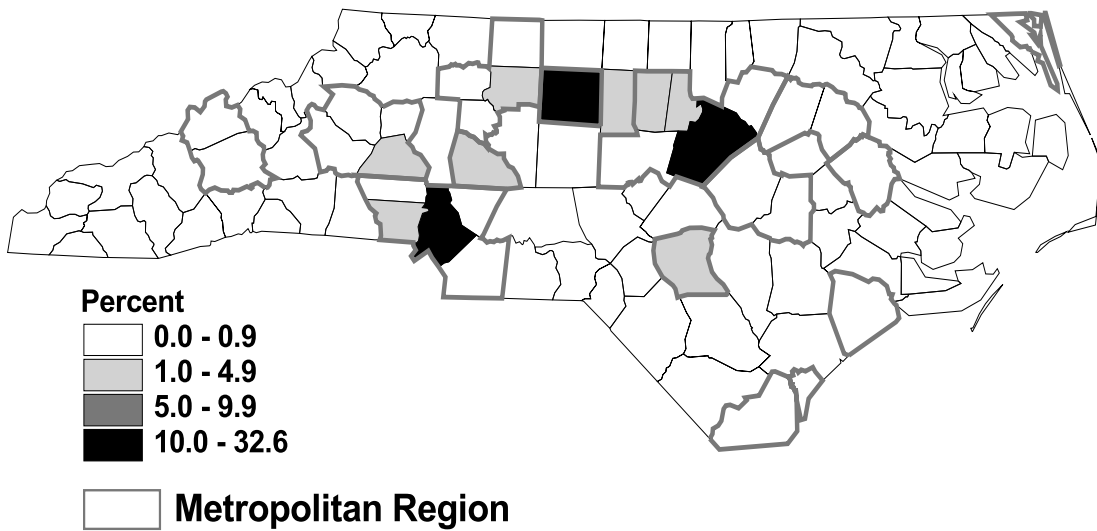


Figure 3g. Vietnamese in North Carolina, 2000. (Source: Summary Tape Files. 2000. North Carolina. U.S. Bureau of the Census.)

Table 1. Percentage Distribution of Ethnic/Racial Groups in Metropolitan Regions of North Carolina, 2000.

| Racial/Ethnic Group | All NC Regions | Charlotte | Raleigh-Durham-Chapel Hill |
|---------------------|----------------|-----------|----------------------------|
| Non-Hispanic white | 61.8 | 16.6 | 14.0 |
| Non-Hispanic black | 63.8 | 15.9 | 15.5 |
| Mexican | 63.9 | 18.1 | 18.4 |
| Central American | 77.2 | 25.6 | 22.8 |
| Puerto Rican | 78.8 | 14.6 | 13.3 |
| Asian Indian | 88.0 | 25.1 | 42.3 |
| Chinese | 89.0 | 19.3 | 48.0 |
| Vietnamese | 91.5 | 38.2 | 20.9 |

Source: Summary Tape Files 3. North Carolina. 1990 and 2000. U.S. Bureau of the Census.

Table 2. Educational Levels of Ethnic/Racial Groups in the U.S., 2000 (Age 25+).

| Ethnic/Racial Group | Percent Less than High School | Percent Bachelor Degree or More |
|---------------------|-------------------------------|---------------------------------|
| Non-Hispanic white | 14.5 | 27.0 |
| Non-Hispanic black | 27.7 | 14.3 |
| Mexican | 46.8 | 7.5 |
| Central American | 44.5 | 9.5 |
| Puerto Rican | 24.2 | 12.5 |
| Asian Indian | 13.3 | 63.9 |
| Chinese | 23.0 | 48.1 |
| Vietnamese | 38.1 | 19.4 |

Source: Special Reports Asians and Hispanics. U.S. Bureau of the Census; and Summary Tape Files 3. United States. 2000. U.S. Bureau of the Census.

settle where they had the best opportunity to pursue their livelihoods, and where their set of human capital skills would most appropriately match that of the occupational structure of the destination. It is therefore expected that these groups will exhibit different settlement patterns within North Carolina in response to the types of employment and educational opportunities available in different counties (Figures 3c-3h).

Hispanics: The most striking aspect of North Carolina's Mexican-origin population is that it was much more widely dispersed than the other immigrant groups in the study. The Mexican population was equally distributed between Raleigh-Durham-Chapel Hill (18.4 percent of total Mexicans in North Carolina) and the Charlotte Metropolitan Region (18.1 percent of total Mexicans within North Carolina), but was only slightly larger in these two regions than the non-Hispanic white and black populations were. Given the low educational levels of Mexicans (46.8 percent without high school diplomas), it is not likely that Mexicans are employed in professions or are attending universities in these metropolitan areas. However, the rapid growth of these metropolitan areas requires a large influx of individuals to work in the service sector of the economy. For example, Johnston-Webb (2002) noted that employers in Charlotte have relied upon Mexican workers to fill positions in fast-food restaurants, which requires little investment in education.

An examination of Figure 3c shows that Mexicans are widely dispersed throughout the Piedmont and Coastal Plain. This distribution is likely associated with employment opportunities in agricultural production, textile manufacturing, or meat-processing plants. North Carolina, the nation's major textile employer (Rees, 1996), depends on a labor force willing to accept the low wages. This has allowed this industry to be competitive in the global economy and has created an employment niche for Mexicans. North Carolina has also established itself as one of the most important poultry-processing states, and has used Mexicans and other minorities to supply its labor force (Kandel and Parrado, 2004; Skaggs, Tomaskavic-Devey, and Leiter 2001).

Central Americans are more concentrated than

their Mexican counterparts in the Charlotte Metropolitan Region (25.6 percent of total Central American population within North Carolina) and the Raleigh-Durham-Chapel Hill Metropolitan Region (22.8 percent of total Central Americans within North Carolina). As relative newcomers to the U.S., Central Americans would be likely to seek ethnic enclaves in the larger cities that provide access to employment, housing, and social contacts. Although, when compared to their Central American counterparts, the rates of Mexican immigrants residing in the two largest cities were smaller, the large number of Mexicans provides an additional Hispanic ethnic base that tends to attract Central Americans.

Figure 3d shows the clustering of Central Americans in the Hickory-Morganton-Lenoir and Fayetteville Metropolitan Regions (+5.0 percent each of North Carolina's Central American population). The Hickory Metropolitan Region is noted as an agricultural region, which through a process of chain migration has attracted additional Central Americans (Fink, 2003). Chain migration occurs when information concerning a particular migrant destination is relayed to the origin and thus stimulates additional migrants. Although less likely than their Mexican counterparts to reside in non-metropolitan counties, a fairly high percentage (+5.0) of North Carolina's Central American population was found in Duplin and Lee Counties. These are agricultural counties that need labor for meat-processing facilities. The low educational levels of Central Americans (44.5 percent without high school diplomas) attract them to these jobs (Kandel and Parrado, 2004; Dinnerstein, Nichols, and Reimers, 2003).

Only 14.6 percent of North Carolina's Puerto Rican population resided in the Charlotte Metropolitan Region while 13.3 percent resided in the Raleigh-Durham-Metropolitan Region, indicating that Puerto Ricans are neither highly-skilled individuals seeking professional employment nor low-skilled individuals seeking employment in the service or agricultural sectors. Puerto Ricans are overwhelmingly distributed in counties with military bases (Cumberland, 24.9 percent of North Carolina's Puerto Rican population). An examination of Figure 3e shows that the Puerto Rican population clusters around metropoli-

tan areas but that its representation within the two largest metropolitan regions is less than that of the other Hispanic groups and significantly less than that of the Asian groups. Although Puerto Ricans have educational levels that are far below those of non-Hispanic whites, their status as U.S. citizens makes them eligible for military service which has long been adopted as a strategy for Puerto Ricans to improve their human capital skills. Also, the migration of middle-class Puerto Ricans into the South in the past few decades suggests that North Carolina's Puerto Ricans have attained more human capital than Puerto Ricans in other U.S. regions (Acosta-Bien and Santiago, 2006; Baker 2002).

Asians: Contrary to the dispersed distribution of Asian Indians in the U.S. in general (Kibria, 2006), Asian Indians are one of the most spatially concentrated populations in North Carolina (See Figure 3f). The high concentration of Asian Indians in the Raleigh-Durham-Chapel Hill Region (42.3 percent) is indicative of the very high human capital skills that these individuals possess whether engaged in professions or attending universities (Roseman, 2002). Asian Indians have educational levels that exceed that of any of the other populations examined in this analysis (63.9 percent with a bachelor's degree or better). An additional advantage is that Asian Indians have a greater command of the English language given the history of British dominance in India and are likely more competitive in the labor force than ethnic groups with limited English language skills (Sheth, 1995). Another 25.1 percent of North Carolina's Asian Indian population resides and works in the Charlotte Metropolitan Region. Because Charlotte's economic base is more diversified than that of the Research Triangle Region, it provides a large number of professional opportunities, especially in the business sector. The high concentration of Asian Indians in Guilford County (7.3 percent) is a result of the universities in the county which include the University of North Carolina at Greensboro and North Carolina Agricultural and Technical University.

The Chinese have been settled in the South longer than other Asian groups (Brown and Pannell, 2000), although they are less dispersed. The Chinese

have the highest concentration of all groups with 48.0 percent in Raleigh-Durham-Chapel Hill, while a further 19.3 percent reside and work in Charlotte. Chinese immigrants to the United States come from a broader spectrum of social and economic classes (Teng, 2003; Wong, 2006) than the other Asian groups. While 48.1 percent of Chinese in the U.S. had at least a bachelor's degree, 23.0 percent did not have a high school diploma. The high concentration in Raleigh-Durham-Chapel Hill may indicate that much of the Chinese immigration to North Carolina is recent and composed of professionals. In addition, since the 1980s, many more students from China have come to the U.S. for educational opportunities (Reimers, 2005), and in North Carolina, the bulk of these educational opportunities are found in the Charlotte and Raleigh Metropolitan Regions.

Unlike their Indian and Chinese counterparts, Vietnamese are twice as likely to be in the Charlotte Metropolitan Region (38.2 percent) as in the Raleigh-Durham-Chapel Hill Metropolitan Region (20.9 percent). Only 19.4 percent of Vietnamese in the U.S. have a bachelor's degree, while 38.1 percent have less than a high school diploma. Refugees from Vietnam settled in Charlotte as early as the 1960s and this accounts for their present high concentration in this area. The lower educational level of the Vietnamese in comparison to Indians and Chinese likely explains the lower percentage of North Carolina's Vietnamese population that is located in the Raleigh Metropolitan Region. Guilford County was the location of 19.3 percent of North Carolina's Vietnamese population and was a former refugee settlement locale (Desbarats, 1985).

Although the Vietnamese human capital skills are lower than those of the Indians and Chinese, they exceed those of the Mexicans and Central Americans. When Vietnamese refugees were settled in the U.S. in the 1970s, they were welcomed into host communities throughout the U.S. Although the first waves of Vietnamese refugees were highly skilled, successive waves possessed less human capital (Caplan, Whitmore, and Choy, 1992). In many small towns and rural areas, Vietnamese were employed in low-wage, low-skilled occupations such as meat-processing (Broadway, 1995). After exposure

to life in the United States, some Vietnamese may have moved from smaller communities in the South in pursuit of better opportunities. Although initially hindered by their refugee status, Vietnamese were willing to work in unattractive jobs to provide better opportunities for their children (Do, 1999). By 2000, a generation or two of Vietnamese had grown up in the United States and were less willing than their parents had been to labor in low-wage jobs. In addition they had received an American education and become proficient in English, which improved their human capital skills and allowed them more economic mobility (Zhou, 2001).

Conclusion

This study provides only a rough estimate of the characteristics that draw different Hispanic and Asian groups to certain counties in North Carolina. One additional avenue of research would include an examination of ethnic/racial group settlement patterns based on the percentage of each group that is immigrant versus native stock. This is important because recent immigrants require a period of adjustment to the host country and to find their place in the American labor force, and are likely to display different distributional patterns than their U.S.-born counterparts. A second avenue of research should focus on the demographic and economic characteristics of different racial/ethnic groups by county. Unfortunately these data are not available from the U.S. Census at the county level. Gender ratios, age structure, and educational level of each of the ethnic/racial groups are just a few pertinent pieces of information that require further study. A third direction for future research would be to disaggregate ethnic/racial groups by suburban and central city residence which would likely show much different levels of concentration or dispersion of the groups than at the county scale.

The major difference between the reference populations of non-Hispanic whites and blacks with the six ethnic/racial groups is that the reference groups displayed a less concentrated population than the other groups examined. This is particularly ap-

parent in the Charlotte and Raleigh Metropolitan Regions. The long-residency time of non-Hispanic whites and non-Hispanic blacks within the United States contributes greatly to this distribution. Immigrant flows from Europe no longer comprise the majority of immigrants to the U.S., while lack of major flows of non-Hispanic blacks from Africa or the Caribbean to North Carolina would explain the relatively low percentage of North Carolina's non-Hispanic blacks residing in urban areas (Massey, 2001). Thus, the higher concentration of Hispanics and Asians in Charlotte and Raleigh in comparison to their non-Hispanic white and non-Hispanic black counterparts may parallel on a micro-scale the macro-scale (or national) roles of New York and Los Angeles, where many immigrants settle and then disperse to cities less noted as immigrant gateways after a period of time. Newcomers to a country find that urban areas contain ethnic/racial enclaves that provide a filter in which certain segments of the host society can penetrate (Allen and Turner, 2006).

Theories of migration and its relationship to human capital were explored to explain why immigrants to the United States from Asia had higher educational levels (human capital) than their counterparts from Latin America. Specifically, Borjas (1989) claimed that Asian immigrants were positively selected (higher levels of human capital) while Latin American immigrants were negatively selected. Distance was determined to be the critical factor in this relationship and can be used as a proxy for costs of the move. The further the distance between two locales, the more costly the migration decision and thus less interaction is likely to occur. The aforementioned explains the selectivity of immigrants in the U.S. in general, but does not address the reasons for the differences in distribution between Asians and Hispanics in North Carolina. The basic assumption in this paper is that Asian and Hispanic groups within North Carolina would be distributed according to the economic structure of particular counties. Thus, it is not surprising that the Asian groups have a greater rate of concentration than the Hispanic groups in Charlotte and Raleigh, given the greater human capital skills acquired by the average Asian, and the employment opportunities for highly-skilled

individuals in these metropolitan areas. Conversely, Mexicans and Central Americans are more likely to be found in higher concentrations in the rural or smaller metropolitan counties than are their Asian counterparts, where they are attracted by employment in agriculture, meat-processing, and other low-wage manufacturing and service opportunities. Puerto Ricans are concentrated in North Carolina counties with military bases.

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