

A PROFILE OF HISPANIC POPULATION IN THE STATE OF TENNESSEE

Prepared by

Nicholas N. Nagle
Assistant Professor, CBER

Randy Gustafson
Research Associate, CBER

and

Charlynn Burd
Graduate Research Assistant, CBER

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716 Stokely Management Center
Knoxville, Tennessee 37996
Phone: (865) 974-5441
Fax: (865) 974-3100
<http://cber.bus.utk.edu>

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Executive Summary

Hispanic immigrants are dramatically changing the demographic and economic landscape of Tennessee. While Tennessee's Hispanic population is still small in absolute terms, Hispanic persons are an important part of growth in Tennessee. One-in-eight new migrants to Tennessee is Hispanic. One-in-ten births is to a Hispanic child.

Tennessee is not unusual; the growth in Tennessee's Hispanic population reflects similar trends across the South. Before 1990, most Mexican immigrants came to just four states: California, Texas, Illinois and New York. But now, immigrants are increasingly coming to new destination, such as Tennessee. These immigrants come to work. When jobs are plentiful, there are many new immigrants, but when jobs are rare, as they are now, many fewer immigrants come. The occupations these immigrants are working in include low-wage, low-skill seasonal employment, such as in agriculture or construction, but they also include many year-round positions in services and manufacturing, in both major cities and in small towns across Tennessee.

This report documents the place of Hispanic persons in Tennessee. About half of the Hispanic persons in Tennessee are foreign-born, and half were born in the United States. Most of these native-born persons are children. In the next few years, one-in-ten children entering Kindergarten in Tennessee will be Hispanic. In twenty years, these children will be Tennessee's labor force. If their education is like that in many other states, these children are less likely to complete high school and be economically self-sufficient adults. Yet, Hispanic children have special requirements; Tennessee's educational system will need to adapt to these needs if it is to prepare these children for the workforce, and to remain economically competitive.

Another common concern is about the economic and fiscal impact of immigrants. In terms of economic impacts, most economists agree that immigration is good for both the average worker and for economic growth, but that immigration hurts the least educated workers. In terms of fiscal impacts, immigrants do pay taxes—probably more so in Tennessee than elsewhere—but they also consume public services, of which the largest, by far, is public education for their children. This report reviews the literature on these impacts from other states. Immigrants come here to work, they are a flexible and valuable source of labor, and they raise the standard of living for the average American. But determining their impact on state and local budgets is less certain; the short-term fiscal impact of immigrants on state and local governments is probably negative, but is also probably small. This report will review findings about how federal and state immigration policy are likely to impact the economic and fiscal health of Tennessee.

Key Findings

Demography

- Tennessee experienced the third fastest growth rate in Hispanic persons across the nation, but the size of Tennessee's Hispanic population is still smaller than average.
- There are two very different subpopulations of Latinos: foreign-born workers, and young, native-born children
- The adult Hispanic population is predominantly foreign-born, young, mobile and male.
- The native-born population is very young (median age 9). The share of Hispanic children in public schools will rise from 6 percent to 10 percent in the next 3-5 years.
- The fertility rate among Hispanic women is higher than the state average. One-in-10 children born are Hispanic, and the growth in Hispanic children accounts for more than half of the growth in Tennessee's youth population.

Geography

- Latinos live in every county of Tennessee, but the largest numbers live in Nashville, Memphis, Knoxville, Chattanooga and their suburbs.
- A few small towns in rural Tennessee have experienced high levels of immigration.
- The foreign-born Hispanic population is primarily from Mexico, however, most persons did not move here directly from Mexico, but from somewhere else in the United States, especially from Georgia, California, Texas and Florida.

Education

- A population boom of Latino children has already taken place. Within the next 3-5 years, 10 percent of all Kindergarteners in Tennessee will be Hispanic.
- Hispanic children are more likely to come from homes in poverty.
- Hispanic children live in high linguistic isolation. Among children ages 5-9, 36 percent live in families in which there is nobody over the age of 13 who speaks English well. This rises to 44 percent among children age 0-4.
- Hispanic children are more likely to come from families with two parents.
- Nationwide, Hispanic students are less likely to complete High School. On a positive note, young Hispanic children have some of the strongest positive responses to high quality early childhood education.

Labor Force

- Most Hispanic workers in Tennessee do not have a high school education (53 percent).
- At all skill-levels, Hispanic workers are still a minority in Tennessee's labor force; there are many more White and Black workers without a high school education than there are Hispanic workers.

- Hispanic workers are concentrated in only a few occupations. Among all detailed occupation categories, the top 8 occupations account for two-thirds of male Hispanic workers.
- Hispanic workers receive a lower wage than White and Black workers in Tennessee, even holding education level fixed.

The Great Recession

- Hispanic workers in the South experienced rising unemployment rates before the rest of the economy,
- But the rise in unemployment was less severe among Hispanic workers. Hispanic workers in the South now experience lower unemployment rates than the general population.
- Hispanic workers are returning to work because they are willing to compromise with employers by working fewer hours and for lower wages.

Economic and Fiscal Impacts

- Most economists agree that immigration has a net positive impact on the United States economy.
- The net fiscal impact of immigrants on local and state governments is likely to be negative, but small.
- Many Hispanic adults in Tennessee are foreign born, and are ineligible for most public services. Most children are native-born, and are eligible for public services.
- Hispanic workers contribute to the economy by paying sales and consumption taxes, by reducing the price of the goods and services they produce, and by raising the productivity of labor-intensive industries.

Neighborhood Segregation

- Nation-wide, Latinos live in segregated neighborhoods, however, these neighborhoods are less segregated than Black neighborhoods.
- The degree of neighborhood segregation varies across Tennessee; for example, segregation is more severe in Memphis than in Nashville.

About the data used in this report

Most of the data used in this report are CBER calculations from federal data sources. The most common source of data is the 2005-2009 American Community Survey, (ACS). The ACS has replaced what used to be known as the “Long Form” of the Decennial Census. Most of the statistics in this report are calculated from the 5 percent Public Use Microdata Sample of the 2005-2009 ACS. This public use microdata sample contains anonymized records of individual households that were interviewed between 2005 and 2009. Thus, these statistics do not represent the population at one specific point in time, but rather, the average over these five

years. Obviously, the population is a moving target and estimating an average across five years is less than ideal, but this is necessary in order to obtain reliable estimates. Prior to the availability of the ACS, researchers had to wait 10 years for the availability of comparable data from the Census Long Form. Other sources of data used here are the Decennial Censuses from 2000 and 2010, and the Current Population Survey. The Decennial Census is a complete enumeration of all persons and individuals in the United States, but only contains information about basic characteristics, such as age, sex, race, and Hispanic origin. The Current Population Survey (CPS) is a smaller sample that the Census Bureau conducts for the Bureau of Labor Statistics. The CPS is the most reliable source of information about unemployment, and is the source of the official unemployment statistics for the United States.

How do we define the Hispanic population?

The U.S. Census Bureau defines Hispanics or Latinos as those persons who identify themselves as having family origin in Mexico, Guatemala, Puerto Rico, or Cuba, as well as other Latin American and South American countries. The Census Bureau identifies Hispanic as an ethnic category, and as different from race categories. The main racial categories are White, Black or African American, Asian or Pacific Islander, and American Indian or Alaskan Native. Hispanic is not a race designation. Persons identifying themselves as Hispanic also identify themselves as belonging to one or more of the racial categories. Thus, it is possible to be White Hispanic, Black Hispanic (as many from the Caribbean are), American Indian and Hispanic, etc. Unless otherwise mentioned, we will refer here to Hispanic as meaning Hispanic of any race. In Tennessee, most Hispanic persons also identified themselves as White. In this report we will use “White” to refer to “White, not Hispanic”, and we will use the terms Hispanic and Latino interchangeably and without distinction.

1. Profile of Hispanic Persons in Tennessee

Latinos were the fastest growing racial or ethnic group in Tennessee during the last ten years. In fact, the growth rate of the Hispanic population in Tennessee was the third-fastest in the nation. There are 290,050 Hispanic persons in Tennessee, however, they are divided into two very distinct subpopulations: foreign-born Latinos, who are primarily foreign-born, young, mobile, male workers, and U.S.-born Latinos, who are primarily the children of immigrants, and more than half of whom are not yet 10 years old. Among the foreign-born Latino residents of Tennessee, it is difficult to determine how many are unauthorized, but a reasonable upper bound is 113,000.

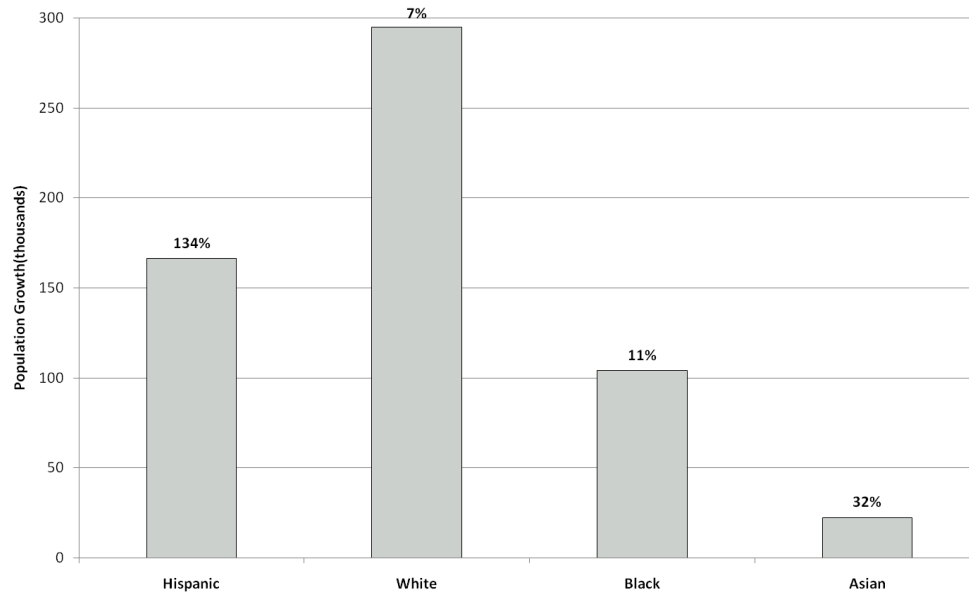
The Demography of Hispanic Persons in Tennessee

Population Trends of Hispanic Persons in Tennessee

Tennessee experienced strong population growth between 2000 and 2010, and about one-half of this population growth came from racial and ethnic minorities. Leading this strong growth was a 32 percent increase in the Asian population, an 11 percent increase in the Black population, and a 134 percent increase in the Hispanic population. The Hispanic growth rate in Tennessee was the third highest among all states in the previous decade. According to the 2010 Census, there were 290,059 Hispanic persons in Tennessee, representing 4.6 percent of the population. This is a change from 2000, when 123,838 Hispanic persons lived in Tennessee (2.2 percent). Even though this growth rate was very high, the number of Hispanic persons is still much lower than the national average (16.3 percent)

Many Hispanic persons are immigrants. According to the 2009 American Community Survey, there were 265,568 foreign-born persons in Tennessee in 2009, of whom 124,585 (49 percent) were from Latin America. Of these 124,585 immigrants, 84,624, were from Mexico. The remainder of the foreign-born population is quite diverse: 12 percent of immigrants are from Europe, 8 percent are from East Asia, 8 percent are from Africa, and 7 percent are from South Asia. This diversity makes Tennessee relatively unique among the states experiencing strong Hispanic growth; the fraction of immigrants from Mexico, while large, is much lower than the national average.

Figure 1.1. Latinos experienced the highest rate of growth between 2000 and 2010, but the numerical growth of Whites exceeded all other groups.



Source: CBER tabulation of Decennial Census

1.2. Age Distribution of Hispanic Persons in Tennessee

The Hispanic population is young.

The Hispanic population in Tennessee is relatively young. The median age in 2010 is only 23 years old. The population pyramid shows that most Hispanic residents are either very young children or in their prime working age years; there are relatively few teenagers and few elderly person. The population pyramid hides the fact, however, that there are two very distinct groups of Hispanic persons in Tennessee: U.S.-born and foreign-born residents.

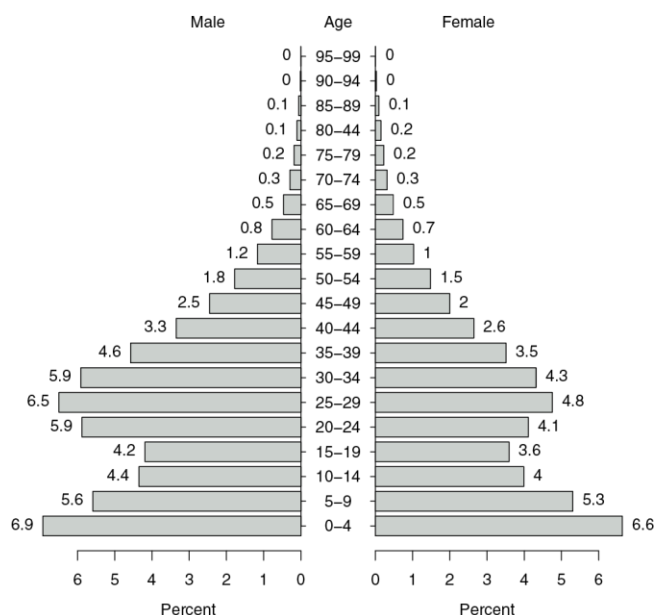
The foreign-born Hispanic population is overwhelmingly of young working age; 71 percent of the foreign-born Latino population is between the ages of 18 and 45. In addition, the foreign-born population is overwhelmingly male. The sex ratio of the foreign-born Hispanic population is 156. This means that there are 156 males for every 100 females.

Hispanic immigration to Tennessee is still an immature labor flow.

These age and sex characteristics of the foreign-born population are classical characteristics of an immature labor flow. In the early stages of an international labor flow, migrants tend to be young, mobile, adult males. After work is steady, savings are sufficient, and social networks are established, then family reunification may take place, or male workers may find a spouse

and start a family. This is not to suggest that the number of working-age Hispanic women is not large—it is, but there are many more males than there are females.

Figure 1.2. Hispanic Population Pyramid



Source: CBER tabulation of 2010 Decennial Census

Figure 1.3. U.S.-born Hispanic Population Pyramid

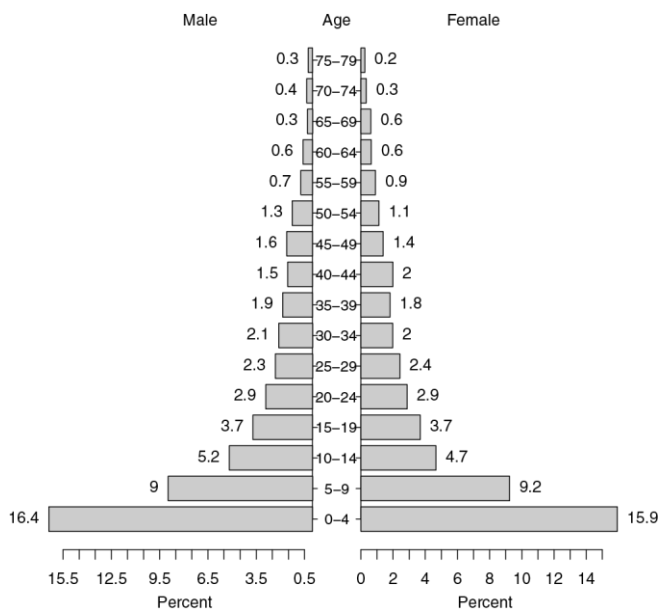
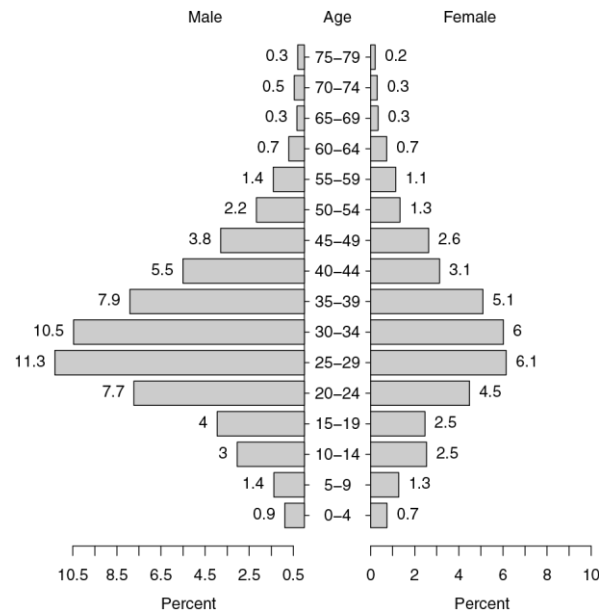


Figure 1.4 . Foreign-born Hispanic Population Pyramid

Source: CBER tabulations from the 2005-2009 American Community Survey, 5 percent Public Use Microdata Sample.

1.3. The size of the unauthorized population in Tennessee

Many residents are concerned about the legal status of these immigrants. This section will consider the number of authorized Hispanic persons in Tennessee; the net economic and fiscal costs of unauthorized immigrants and the effects of immigration policy are considered in Section 6 of this report.

Like other states with a large number of new immigrants, many of the immigrants in Tennessee are here without legal authorization. It is difficult, however, to speak with any certainty about the number of such unauthorized persons because there are no reliable surveys about legal status. In fact, asking this question reduces the response rate of a survey and immediately places the reliability of the survey into question; reliable sample surveys intentionally avoid this question.

The Pew Hispanic Center has tried to estimate the number of unauthorized persons in each state by first estimating the number of legal immigrants, as obtained from immigration records, and then subtracting this number of legal resident from estimates of the total foreign-born population. The residual is then attributed to unauthorized immigration (Passel and Cohn 2011). They estimated that there are 140,000 unauthorized immigrants in Tennessee in 2010, and that these immigrants comprise 3.1 percent of the state's labor force. They also estimated that about 30 percent of all immigrants in the U.S. are unauthorized.

There are reasons, however, to believe that the true number of unauthorized immigrants in Tennessee is below the number estimated in the Pew Hispanic Center report. According to the 2010 Census, there were 290,059 Hispanic persons in Tennessee. The Decennial Census does not ask about place of birth, so we must look to the American Community Survey from previous years to determine what fraction of Hispanic persons are foreign-born. Rather than looking at the 2005-2009 ACS data, we can look at the 2009 one-year data. These rely on a smaller sample and have a larger margin of error, but they are also closer in time to the 2010 Decennial Census. According to the 2009 ACS, there were 257,770 Hispanic persons in Tennessee in 2009, of whom 117,997, or 46 percent, were foreign born. If this fraction changed relatively little between 2009 and 2010, then a good estimate of the number of foreign-born persons in 2010 is about 133,000. The Pew estimate of 140,000 unauthorized persons is higher than the number of foreign-born Hispanic persons in Tennessee. It is possible that many of the unauthorized counted by the Pew report are non-Hispanic immigrants, but it is certainly true that the Pew report is not a reliable estimate of the number of unauthorized Hispanic persons in Tennessee.

So, how many unauthorized Hispanic immigrants are there in Tennessee? Among Hispanic immigrants who have immigrated in the last 10 years, the highest estimates are that 80-85 percent are unauthorized. If we apply this to the foreign-born Hispanic population in Tennessee, then a reasonable upper bound on the number of unauthorized Hispanic immigrants is 113,000.

1.4. Fertility Rates of Hispanic Persons in Tennessee

Hispanic females have a higher birth rate than the general population of the United States. The Total Fertility Rate (TFR) measures the expected number of children a woman will have during her life. The fertility rate in Tennessee is similar to that across the nation.

A TFR of 2.1 is considered the “replacement rate” of the U.S. population. If women have on average 2.1 children over the course of their lives, then the number of births will equal the number of deaths, and the U.S. population will remain steady. You might expect that a TFR of 2.0 would be the replacement rate, but the replacement rate must be slightly higher to account for deaths that happen before children reach reproductive age.

In Tennessee, as well as the rest of the United States, the TFR is slightly below the replacement rate. The TFR for white, non-Hispanic women in Tennessee is 1.9. For comparative purposes, the TFR in many Western European countries is 1.5 and lower. While the TFR in the United States and Tennessee is below replacement rate, it is high enough that the dramatic population decline seen in recent decades in Western Europe should not be repeated here in the near future, and most demographers are not concerned about the current fertility rate in the United States.

The Hispanic population, however, has a much higher fertility rate than the general population. The TFR for Hispanic females in Tennessee and the United States is about 3.0. This

means that, in the absence of any more migration, the Hispanic population in Tennessee will double in size in about 24 years. Nation-wide, the increase in Hispanic population due to births overtook the increase due to migration sometime in the last decade, however, migration is still the more important component in Tennessee. To give some perspective on the rate of growth for Hispanic persons, the TFR of Hispanic females of 3.0 children is less than the TFR in the United States during the baby boom years, when it was about 3.5.

Table 1.2. Hispanic women have a high fertility rate.

	Total Fertility Rate
United States-Non-Hispanic	2.0
Tennessee- White, Non Hispanic	1.9
Tennessee-Hispanic	3.0
“Replacement Level”	2.1
US during the Baby Boom Years	3.5

Source: CBER estimates

Focus on Methodology: Calculating Demographic Rates

A key distinction in measuring demographic rates, such as fertility, is that of period vs. cohort rates. Consider the case of the Total Fertility Rate, or the number of children a woman is expected to have during the course of her lifetime. Ideally, we would survey women who have completed their reproductive years and find out how many total children they have had. We could, for example, calculate the total fertility rate for all females born in 1940, or for native-born females born in 1965. These are called cohort rates, because they measure the actual rate experienced by a single cohort of the population. There is an obvious problem with this method, however. How do we calculate the cohort rate for women born in 1980? These women are in their reproductive years. We do not yet know what their total fertility rate will be. We can assume that women born in 1980 are like women born in 1970, or 1960, but these are assumptions, and we do not know if they are appropriate.

The second, and more common, type of measures are what are called period rates. These calculate the age-specific fertility rates at a single moment in time. For example, data from the year 2000 may be used to calculate the fertility rate for all 15 year old females, for all 20 year-old females, all 25 year-old, etc, through 50 year-old females. Aggregating these across all ages gives the “period” total fertility rate. This represents the fertility rate experienced by a population at one period in time, but does not represent the fertility rate of any particular woman over the course of her lifetime.

The difference between period and cohort rates can be real and significant. For example, if 20-year-old women today expect to have fewer children, then their fertility rate when they are 30 or 40 years of age may be quite different from the period fertility rate of 30 and 40 year old females today.

There is some evidence that the cohort fertility rate of Hispanic females in the United States may be lower than is suggested by the period cohort rates. Survey evidence suggests that women who migrate, regardless of age, are more likely to have delayed childbirth prior to migration. This may be a conscious choice, or it may be a selection mechanism; it is harder to migrate once you have children, so migrants will tend to have fewer children. Thus, comparing the period fertility rates of 20-year-old and 30-year-old Hispanic females, both of whom are recent migrants, is misleading. While each is more likely to have a child in the next few years, the 30-year-old’s fertility rate is higher than the rate the 20-year-old woman will experience when she is 30. This inflates the period fertility rate at each age, and thus overestimates the Total Fertility Rate. When these differences are accounted for, the cohort total fertility rate Hispanic may be about 0.5 children lower than the period rates suggest (Parrado 2010).

2. The Geography of Hispanic Persons in Tennessee

2.1. Where do Hispanic persons live in Tennessee?

Despite the rapid growth in Tennessee's Latino population, Latinos comprise only 4.6 percent of the population in Tennessee. This is much lower than the nation as a whole (16.3 percent). Hispanic persons live in every county in Tennessee, however the largest populations are located in Nashville, Memphis, Knoxville and Chattanooga, in Rutherford County, and in Montgomery County, which is home to the U.S. Army installation Fort Campbell.

In addition to the urban cores, there has been strong Hispanic population growth in suburban areas across the state. For example, each county surrounding Davidson County saw its Hispanic population double between 2000 and 2010.

While most of the Hispanic growth has occurred in the major cities and suburbs, a few small or rural towns, such as Morristown (Hamblen County) and Shelbyville (Bedford County), also experienced rapid Hispanic population growth. The immigrant flows to these small towns are well established now, and are driven largely by the employment hiring strategies of a few large firms, especially in food processing industries.

Table 2.1. Top 10 Counties by Hispanic Population

County	Number of Hispanic Persons	Fraction of State Hispanic Total
Davidson	61,117	21.1
Shelby	52,092	18.0
Rutherford	17,500	6.0
Knox	15,012	5.2
Hamilton	14,993	5.2
Montgomery	13,752	4.7
Williamson	8,166	2.8
Hamblen	6,711	2.3
Sumner	6,308	2.2
Bedford	5,083	1.8

Source: 2010 Decennial Census

Figure 2.1. Number of Hispanic Persons by County

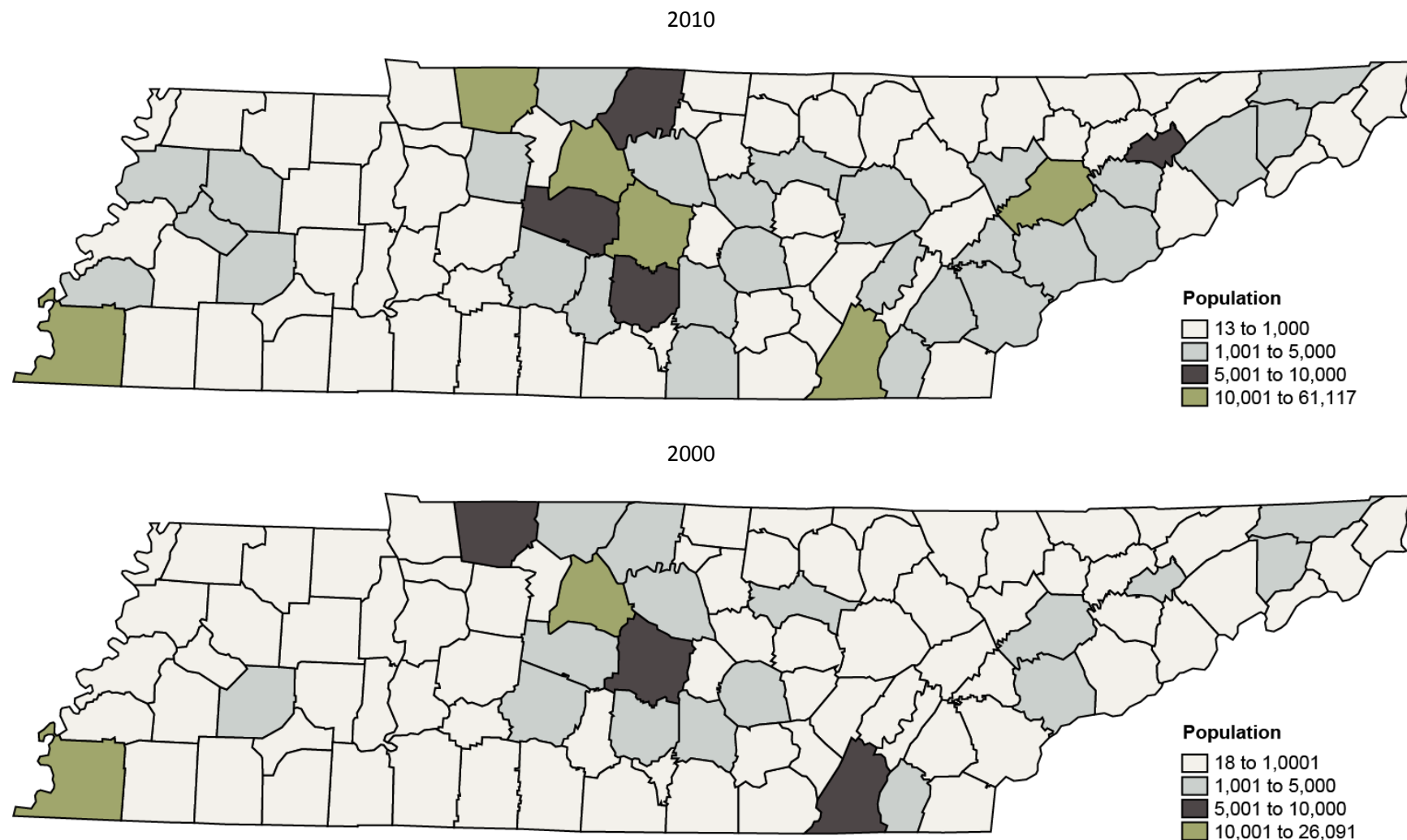
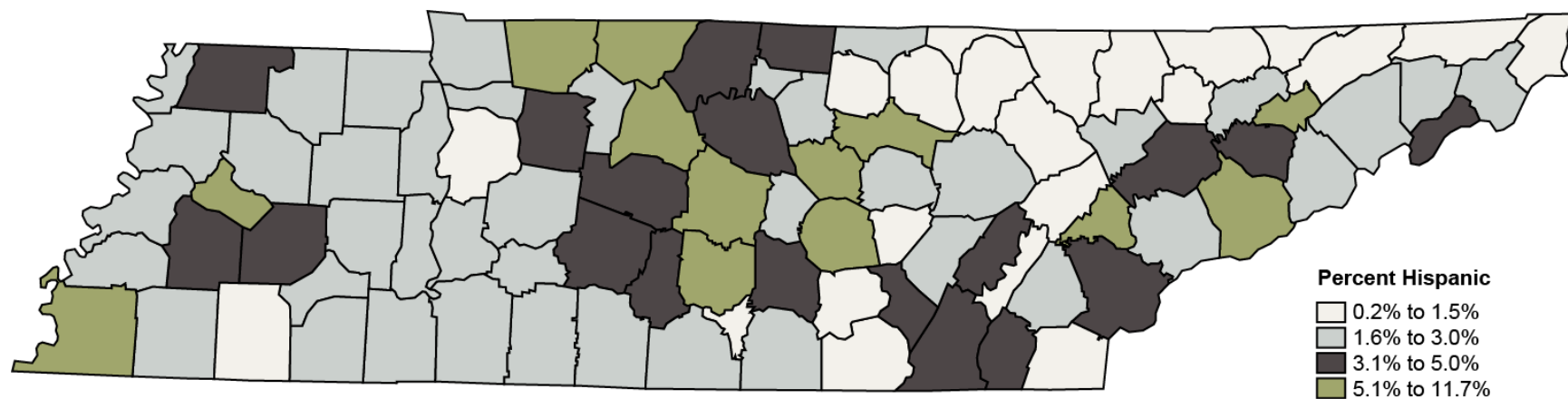
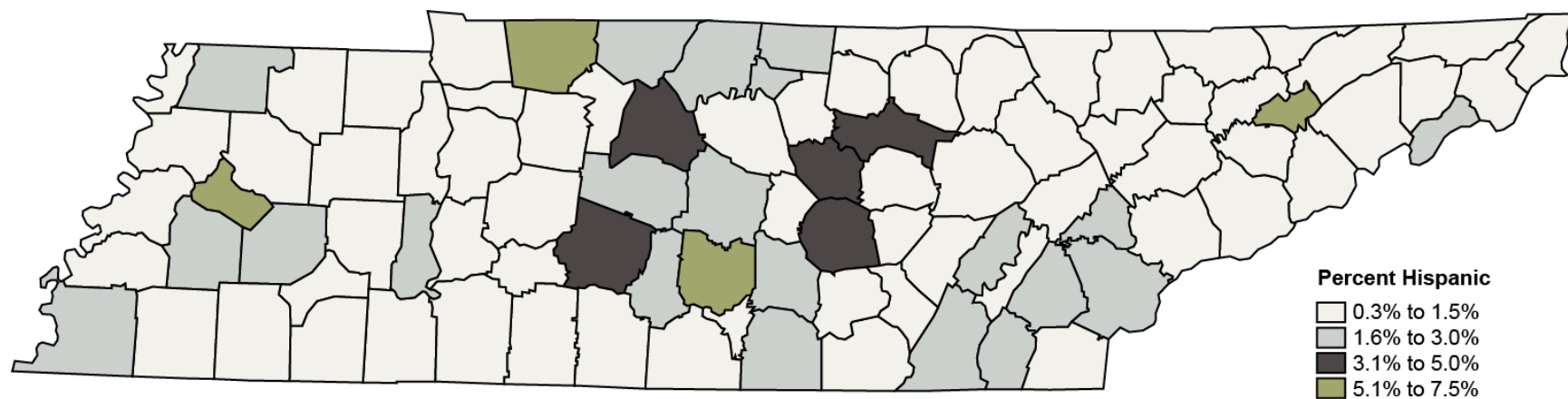


Figure 2.2. Percent Hispanic by County

2010



2000



2.2. Hispanic Migration to the South

This Hispanic population is growing faster in the South than in any other region of the United States. In addition to Texas and Florida, which are “traditional” immigrant destinations, other Southern states have become popular destinations for Hispanic immigrants. Georgia and North Carolina are the most notable new destinations for Hispanic immigrants by total number, but Tennessee has certainly experienced an increase in Hispanic immigration as well. Between 2000 and 2010, the growth rate of Tennessee’s Hispanic population was the third fastest in the nation, and many places across Tennessee now have a sizeable Hispanic population where they were barely noticeable ten or twenty years ago.

Before the Great Recession, one trend driving immigration was the robust economic growth of the “New South” relative to other regions in the United States. Atlanta, Charlotte and Nashville experienced dramatic economic restructuring, with significant growth not only in high-skill/high-wage industries but also in low-skill/low-wage industries, such as those in the construction and service sectors. These Southern cities experienced rapid economic and population growth during the 1990s and into the early 2000s. Hispanic population growth was accompanied by Black population growth and by even larger numbers of White migrants. Between 2000 and 2010, the total population in the South grew by 14 percent, and the Hispanic population grew by 57 percent. This is in contrast to places like California and the North East, which have seen anemic population growth among the native-born population. Hispanic population growth across Tennessee is just one sign of a robust economy across much of the South.

Hispanic migration to the South has not just occurred in the booming metropolitan areas; many small towns across the South have seen dramatic Hispanic population growth also. It is popularly believed that immigration to rural areas is primarily a seasonal phenomenon, driven by seasonal changes in farm labor. This is no longer true, however, as many small towns across the South have experienced economic growth. Restructuring in the food processing industry, and especially poultry slaughtering, has created new low-skill/low-wage jobs in many small towns across the South. Similarly, as the auto industry has restructured to take advantage of lower wages and a friendlier business climate in the South, some second- and third-tier auto parts suppliers have moved to small towns, attracting new Hispanic workers as well as other minorities. While crop production still remains a strong employer of Hispanic workers, these other manufacturing sectors have brought year-round jobs to the rural South and have encouraged permanent settlement by Latinos in the rural South.

Since Hispanic migration to the South is a recent phenomenon, these immigrants tend to be foreign-born, young, and male. Most Hispanic immigrants do not have a high school diploma and do not speak English well, if at all. As these immigrants become established, they become more likely to bring their spouses with them or to start new families. As a result, many rural

communities are now experiencing dramatic Latino population growth, especially among small children.

2.3. Why are Hispanic immigrants choosing rural places in Tennessee?

Hispanic immigrants are increasingly moving to rural places where the population of Hispanic persons was negligible only two decades ago (see Figure 2-2). This is happening not just in Tennessee, but throughout the Southeast and Plains states as well. Important drivers of this trend are the reorganization a few key industries, a preference among some immigrants toward small-town living, and concurrent economic factors that were pushing immigrants away from traditional gateway states. The new small-town jobs are often available year-round, and it is no longer true that rural immigrant labor is primarily seasonal labor.

Industrial reorganization has increased rural demand for low-skill labor

First, a few influential manufacturing industries have restructured, increasing demand for low-wage, low-skill labor in the rural South. One of the most well-documented instances of a restructuring industry is the meat-packing industry (Kandell and Parrado 2003). Fifty years ago, meat-packing was a predominantly unionized, urban industry requiring semi-skilled labor. Since that time, consumer tastes have shifted, with consumers demanding more pre-cut and pre-processed foods. In addition, consumer demand has shifted from beef to poultry and pork. Whether in response to these changes or as a cause, there has been much consolidation and vertical integration within these industries. Technological change has enabled these production processes to become more routinized and has reduced the skill-level required of workers. Firms have thus increasingly located in rural areas in the South and Plains states to take advantage of lower land and labor costs and lower union presence. Further, these changing work conditions have led to the declining attractiveness of some jobs and high employee turnover is common. As a response to these labor needs, some firms in this industry have turned toward actively recruiting Hispanic labor from traditional urban centers. The continuous supply of immigrants, willing to do many tasks that native workers are unwilling to perform has addressed many labor problems. Similar trends have been documented in the carpet industry in Georgia (Hernandez-Leon and Zuniga 2000) and the timber industry in Alabama (McDaniel and Casanova 2003).

This does not mean that most rural places in Tennessee are experiencing a renaissance based on manufacturing. This is emphatically not the case; non-durable manufacturing has been declining across the state for the past few decades. But, yet, a few towns have been able to hold on to or attract firms that depend on a labor force that is low skill, nonunionized, and increasingly, Hispanic.

Some Hispanic immigrants are attracted by the rural/small town lifestyle

A second cultural factor for Hispanic rural migration lies in the types of persons who choose to migrate to rural areas. Ethnographic evidence suggests that many Hispanics who are moving to rural areas are attracted by better schools, fewer street gangs, more affordable housing, and greater “tranquility” in rural places. This research does not imply that all Hispanic persons feel that way, but it does suggest that there are some Hispanic immigrants who prefer rural and small town living if jobs are available.

Some immigrants may be fleeing from reduced opportunities in California and other traditional gateway states.

Finally, a third factor leading to the increase in rural migration that began in the late 1980s, was the economic downturn in southern California and Texas at those times, which pushed away many migrants in search of more steady employment opportunities. The timing of this downturn coincided with the rapid rise in rural Hispanic populations in many states.

2.4 Where do recent movers come from?

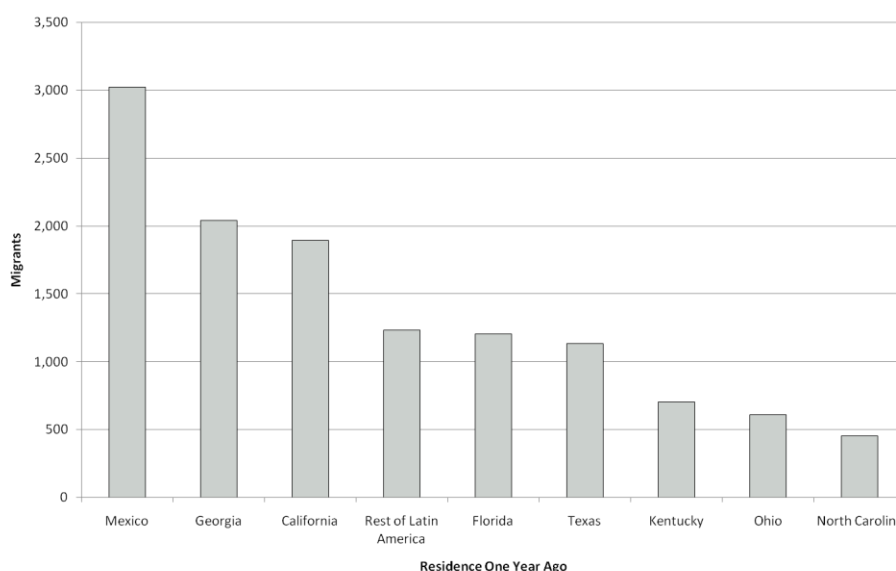
Most foreign-born Latinos in Tennessee were born in Mexico (70 percent). However, most of these persons did not come directly from Mexico to Tennessee, but rather they migrated most immediately from elsewhere in the United States. The Census Bureau asks its survey respondents where they lived one year ago; among foreign-born Latinos who have moved to Tennessee during the last year, only one-quarter (26 percent) lived outside of the United States one year ago. Among those who did live outside the United States, though, Mexico was by far the most common response (67 percent).

The remaining three-quarters of all recent foreign-born Hispanic migrants moved from elsewhere in the United States. For Tennessee, the largest sending state is Georgia followed by the traditional gateway states of California, Florida and Texas. A common settlement pattern for immigrants is to first move to gateway community, where there are large numbers of previous migrants. Previous migrants help to support the new immigrants, as well as to provide them with useful information about job opportunities. Immigrants may then follow these job opportunities to new destination, such as Tennessee. The large number of immigrants from California, Texas and Florida agrees with this common pattern.

While Georgia is not considered one of the traditional immigrant gateways, the Hispanic population there has experienced rapid growth in the last two decades. Georgia thus serves a role as a gateway for Hispanic immigrants to Tennessee. It is likely that Tennessee’s immigration flow will be closely tied to immigration and economic trends in Georgia in the future. If immigration to Georgia continues as it has, it is possible that rapid immigration growth in Tennessee will continue also, especially in East Tennessee.

However, the large number of immigrants moving directly from Mexico suggests that there are already strong direct ties between Mexico and Tennessee and that many immigrants bypass the traditional gateway states. As immigrants become settled and reunite with their families, or as immigrants strengthen their networks of job information, the number of migrants coming directly from Mexico to Tennessee is expected to rise, independently of what happens in Georgia, California and elsewhere. It is important to recognize, however, that a precursor to future immigration is continued job creation; immigration has declined dramatically after the onset of the start of the Great Recession.

Table 2.2. Many immigrants lived in Mexico one year ago, but even more lived elsewhere in the United States.



Source: CBER tabulation of 2005-2009 American Community Survey, 5 percent Public Use Microdata Sample.

Note: The number of migrants is the sum over all years from 2005 to 2009, and not a one year average.

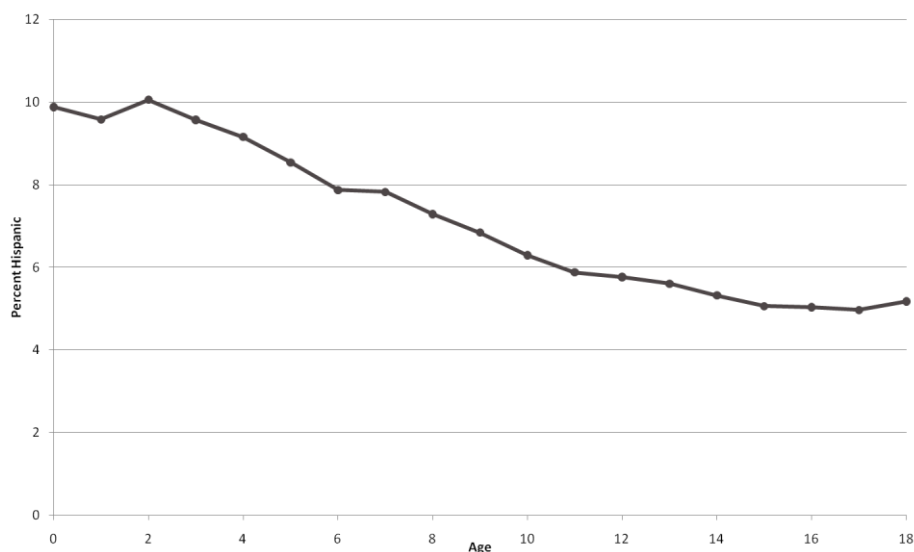
3. Educational Trends of Hispanic Populations in Tennessee

This section documents some of the impact of Hispanic children on education in Tennessee. Hispanic students have become a large component of the student population in Tennessee and their number will continue to increase over the next few years. Compared to other students, Hispanic children have special needs, particularly in regards to learning the English language and involving their parents in the education process. If these needs are ignored, Tennessee risks acquiring a second-generation of Hispanic students with below average high school completion rates, with few job skills, and with low labor productivity. Unlike some of their parents, who are ineligible for most social services, this second generation will consist of U.S. citizens with full access to social services. Their low wages and low skills will likely make them economically dependent on these services. This trend can be turned around, however, with effective education of Hispanic children. The solution to this problem will be multifaceted, but this report will emphasize early childhood education (ECE) since studies show that ECE programs are cost effective at educating Hispanic children and since Tennessee has already made ECE one of its education priorities.

Coming boom of Hispanic children

The large number of Hispanic children will have dramatic consequences for public schooling in Tennessee, both in terms of the absolute number of students and their ethnic composition of students. Some school districts have already begun to see these changes; more changes are likely in the next few years.

Currently, 6 percent of the school-age population in Tennessee is Hispanic. The proportion is larger for the youngest grades, and will get even larger in next few years. Among children 3 years and younger, nearly 10 percent are Hispanic. This boom of Hispanic children is already being noticed in the primary grades in many school districts across the state.

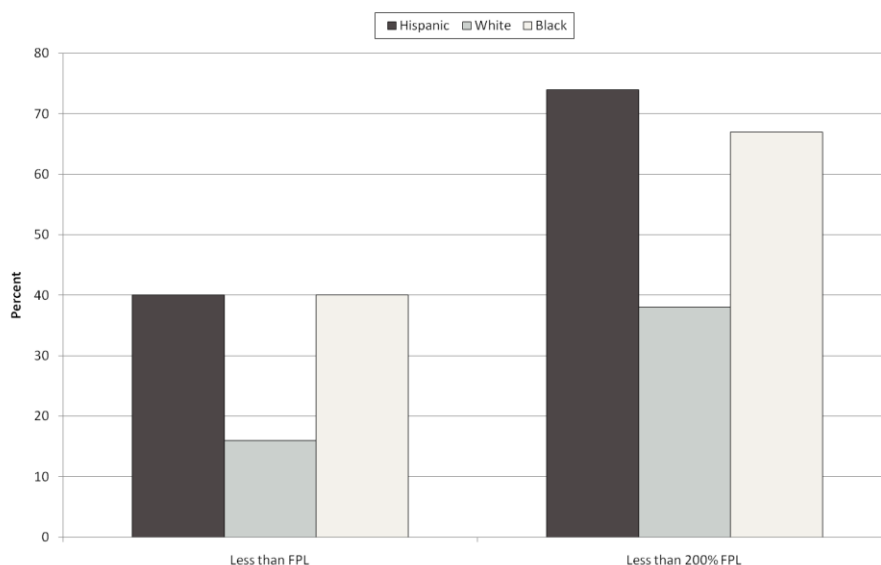
Figure 3.1. An increasing number of children entering school are Hispanic.

Source: CBER tabulations of 2010 Decennial Census.

How long will these numbers continue to rise? The number of Hispanic children entering Kindergarten will continue to rise for at least the next few years, but we have begun to see a leveling off of the number of Hispanic infants. Since the onset of the Great Recession, the number of newborn Hispanic children has remained steady at about 10 percent of the infant population. We know that fewer immigrants--and hence, fewer potential parents--have been coming to Tennessee. It is also possible that potential parents that are already here may be delaying childbirth as a result of their precarious economic situation. If jobs return to Tennessee, we can expect another rise in immigration and the number of Hispanic children may start to climb again.

Hispanic children experience high linguistic isolation.

Many Hispanic children live in linguistic isolation. The Census Bureau defines a household to be in linguistic isolation when there are no persons 13 years or older who speak English “very well.” According to CBER estimates of data from the American Community Survey, 36 percent of all Hispanic children in Tennessee ages 5 to 9 live in linguistic isolation. Among children ages 0 to 4, 44 percent live in linguistic isolation. For some of these students public schools will be their first significant exposure to the English language. These students are less likely to have English language reading materials in the home and their parents will face more difficulty assisting children with their homework and communicating with teachers and school staff.

Figure 3.2. Hispanic children are more likely to live in poverty.

Note: Children age 15 and younger.

Source: CBER tabulation from 2005-2009 American Community Survey, 5 percent Public Use Microdata Sample.

Hispanic Children are more likely to live in poverty.

Income is strongly correlated with educational outcomes. If parental income is in the top 25 percent, a child has a 93 percent chance of graduating high school. This chance is only 69 percent when the parents' income is in the bottom 25 percent (CBER-UT 2007). The poverty rate among Hispanic children in Tennessee is high; 40 percent of Hispanic children live in households within income less than the Federal Poverty Level (FPL), and 73 percent of children live in households below 200 percent of the FPL. For a family of four, the FPL in 2011 is just \$22,350. In Tennessee the poverty rate among Hispanic children is roughly equivalent to the poverty rate among Black children.

Hispanic children are more likely to live in households with two parents.

Studies consistently show that children in households with two parents tend to perform better in school than children in households with only one parent present. The reasons for this performance gap are debated, but it is likely due to some combination of increased stability at home and the extra time that two parents will have to spend on their children and their education.

Most Hispanic children do come from households with two parents. Among all children 17 and younger, 64 percent of Hispanic children live in a household with both parents present, compared to 75 percent for White children and 33 percent for Black children. But the stability of Hispanic households is even more impressive when we compare low-income Hispanic

households with low-income White and Black households. When we look at children in households earning less than twice the Federal Poverty Level: 60 percent of Hispanic children live in households with two parents, compared to 56 percent of White children and an astonishingly low 17 percent of Black children.

Children in two-parent households are more likely to be engaged in school, more likely to complete high school, have lower levels of behavioral problems, and their parents are more likely to be involved in their education. In this regard, Hispanic children have a relative advantage to their peers. Countering these positive effects, however, are the relative linguistic isolation of Hispanic parents, and the high rates of poverty among Hispanic families. Obviously, having two parents is not enough to guarantee success; schools will have to find a way to involve the parents of Hispanic children in their education.

Challenges and Opportunities for Education

Studies repeatedly suggest that high-quality education is one of the most cost-effective public expenditures in the long run. Education and training help to keep people off of public support and achieve economic self-sufficiency. In 2000, people in Tennessee with a high school education earned 85 percent more than those without. Earning a bachelor's degree raises income by 309 percent compared to a high school dropout. The tax consequences of this are quite large; completing high school increases state and local sales taxes by 90 percent, and completing high school and earning a bachelor's degree increases sales taxes by 291 percent (CBER-UT 2007).

While the economic benefits of education are great, Hispanic students experience a significant education deficit across the nation. Reports consistently show that native-born Hispanic students are less likely to complete high school, are more likely to have teenage pregnancies, are more likely to become incarcerated, and are more likely to depend on social service as adults. As already shown in this report, most Hispanic children in Tennessee are native-born, and many are not yet old enough to begin school. Now is a good time to evaluate how native-born Hispanic children in Tennessee are educated, so we can determine how best to control costs over the short- and long-term, and how to best create a productive, skilled and competitive workforce.

It is important to recognize the demands that are placed on public schools by Hispanic children, and how these demands are different from those of at-risk non-Hispanic children. As shown in this report, most Latino children in Tennessee are native-born, but they have parents who are foreign born and who are unlikely to speak English proficiently. When parents are not able to speak English at home, students may receive less help from their parents, and their parents are less likely to assist in their child's education. Nationwide, English Language Learners (ELL) experience higher high school dropout rates and a learning gap persists between ELL students and non-ELL students. Training teachers to use techniques that are proven effective in

reaching ELL students will be important for increasing the chances for these students. Similarly, programs such as Tennessee’s Even Start Family Literacy Programs directly tackle this challenge.

The demographic evidence shows that many of the Hispanic children in Tennessee are U.S.-born and have not yet entered school. This suggests that Early Childhood Education may have a large impact on the Hispanic population in Tennessee. One long-term study in Chicago found that a one-dollar investment in high quality early childhood education program returned \$7.14 to society through increased earnings and reduced costs for remedial education and crime (TN Department of Education, n.d.). But the evidence for ECE in Tennessee is mixed. A report prepared for the Tennessee Comptroller to the Treasury (2011) found that Tennessee’s PreKindergarten program had only slight positive on child performance in Kindergarten, declining to negligible or even negative performance by fifth grade. In contrast, a randomized controlled study performed by the Vanderbilt University Peabody Research Institute found that Tennessee’s Pre-Kindergarten increased readiness for Kindergarten by 82 percent, and concluded that, “Though this study overall is still in an early stage, these initial results provide strong indication that TN-VPK (TN Volunteer PreKindergarten) is boosting school readiness skills of the economically disadvantaged children it serves” (Lipsey et al., 2010).

Nationally, the major limitations in Hispanic access to high-quality pre-kindergarten are insufficient training in language learning for teachers, insufficient numbers of classrooms in the neighborhoods where they are most needed, and insufficient outreach to Hispanic households (Laosa and Ainsworth 2007). Studies show that the most effective ECE programs for Hispanic children include at least some instruction in the Spanish Language (Laosa and Ainsworth 2007).

While more research is needed to prove that ECE and ELL courses are effective, the available research evidence to suggest that they are. Experiences from the current educational system around the country, however, show that the status quo does not meet the needs of Hispanic and other low-income students. The long-run costs of educational failure are quite large. Few public policies have long-run costs and benefits to society as large as does education policy.

4. Characteristics of the Latino Labor Force

Hispanic immigrants come to Tennessee primarily to work. The educational attainment of most Hispanic immigrants, however, is very low, limiting the accessibility of many occupations. Hispanic workers in Tennessee are highly concentrated in just a few detailed industries and occupations. While many of these jobs are seasonal, others entail year-round employment. The low educational attainment of workers also limits their productivity in the workforce and their ability to acquire new skills.

4.1. Hispanics in Tennessee's Labor Force

Hispanic workers are highly concentrated in just a few industries.

For Hispanic males, two-thirds of the workforce are in only eight detailed industries (see Table 4-1); for females, one-half of the labor force are in the top eight industries (see Table 4-2). These industries rely heavily on low-skilled jobs. Hispanic males are concentrated in construction, restaurants, agriculture, and manufacturing (especially meat processing). Hispanic females are concentrated mainly in low-skill service industries, working as maids, janitors, cashiers, and food service.

Many, but not all, of these occupations have strong seasonal cycles. Construction, landscaping, agriculture and tourism jobs often disappear in the winter. These jobs are more common among men and it is possible that some families rely heavily on female wage-earners during winter months. Despite this strong dependence on seasonal jobs, many Latinos do work in year round positions, such as in restaurants, manufacturing, janitorial, and housecleaning occupations. In policy discussions, it is important to remember that not all Hispanic immigrants are seasonal workers, and that immigration policy focusing on seasonal work visas will be insufficient; there is also strong economic demand for the low-skill immigrant labor that is year-round and non-seasonal.

Hispanic employment in rural places is not just in crop production.

The types of jobs Hispanic workers take are similar between urban and rural areas. The primary exceptions are that crop production and animal slaughtering are more important in rural areas for both males and females, and that janitorial and housecleaning jobs are less important (see Tables 4-5 and 4-6).

As discussed earlier, the growth of Hispanic labor in animal slaughtering and processing is the result of significant industrial change in this industry over the last 50 years. Whereas meat processing used to be a primarily urban occupation, filled by semi-skilled, unionized workers, this industry has restructured, and is now a predominantly small town industry, filled by an unskilled workforce that is increasingly Hispanic and female. This change is not just happening

in Tennessee, but is happening all over America, and is driving rural immigration across the Plains, Midwest and Southern States.

Table 4.1. Top Industries for Hispanic Males in Tennessee

	Number of Hispanic Workers	Share of Hispanic Workers
Construction	2,2904	38.4
Restaurants and other food services	6,280	10.5
Landscaping services	4,223	7.1
Crop production	2,217	3.7
Motor vehicles and motor vehicle equipment manufacturing	1,085	1.8
Animal slaughtering and processing	1,044	1.8
Services to buildings and dwellings	864	1.5
Animal production	704	1.2

Source: CBER tabulations of 2005-2009 American Community Survey.

Table 4.2. Top Industries for Hispanic Females in Tennessee

	Number of Hispanic Workers	Share of Hispanic Workers
Restaurants and other food services	4,068	15.9
Traveler accommodation	1,642	6.4
Services to buildings and dwellings	1,413	5.5
Other Services: Private households	1,264	5.0
Employment services	952	3.7
Animal slaughtering and processing	826	3.2
Educational Services: Elementary and secondary schools	715	2.8
Child day care services	518	2.0

Source: CBER tabulations of 2005-2009 American Community Survey.

Table 4.3. Top Occupations for Hispanic Males

	Number of Hispanic Workers	Share of Hispanic Workers
Construction laborers	6,108	10.3
Carpenters	5,238	8.8
Grounds maintenance workers	4,302	7.2
Brickmasons, blockmasons, and stonemasons	2,941	4.9
Cooks	2,885	4.8
Miscellaneous agricultural workers including animal breeders	2,554	4.3
Painters, construction and maintenance	1,795	3.0
Laborers and freight, stock, and material movers, hand	1,748	2.9
Janitors and building cleaners	1,517	2.5
Miscellaneous assemblers and fabricators	1,475	2.5

Source: CBER tabulations of 2005-2009 American Community Survey.

Table 4.4. Top Occupations for Hispanic Females

	Number of Hispanic Workers	Share of Hispanic Workers
Maids and housekeeping cleaners	3,157	12.4
Janitors and building cleaners	1,505	5.9
Waiters and waitresses	1,239	4.9
Packers and packagers, hand	1,216	4.8
Miscellaneous assemblers and fabricators	960	3.8
Cooks	926	3.6
Cashiers	825	3.2
Packaging and filling machine operators and tenders	811	3.2
Sewing machine operators	718	2.8
Miscellaneous assemblers and fabricators	1,475	2.5

Source: CBER tabulations of 2005-2009 American Community Survey.

Table 4.5. Top Rural Industries for Hispanic Males

	Number of Hispanic Workers	Share of Hispanic Workers
Construction	4299	30.1
Restaurants and other food services	1346	9.4
Crop production	959	6.7
Animal slaughtering and processing	907	6.3
Landscaping services	742	5.2
Animal production	441	3.1
Furniture and related product manufacturing	350	2.4
Employment services	279	2

Source: CBER tabulations of 2005-2009 American Community Survey, 5% PUMS.

Note: Rural is defined as workers not living in one of the 4 main cities or their metropolitan areas.

Table 4.6. Top Rural Industries for Hispanic Females

	Number of Hispanic Workers	Share of Hispanic Workers
Restaurants and other food services	661	12.1
Animal slaughtering and processing	487	8.9
Miscellaneous manufacturing	305	5.6
Crop production	238	4.4
Employment services	238	4.4
Traveler accommodation	229	4.2
Elementary and secondary schools	174	3.2
Offices of physicians	151	2.8

Source: CBER tabulations of 2005-2009 American Community Survey, 5% PUMS.

Note: Rural is defined as workers not living in one of the 4 main cities or their metropolitan areas.

4.2. Educational Attainment of Hispanic Workers

Hispanic workers are much less likely to have a high school education.

Hispanic immigrants are much less likely to have completed high school than their native-born counterparts. More than half (53 percent) of all Hispanic workers have not completed high school, and 37 percent have not even completed 9th grade. These rates are much higher than they are among native-born workers. Even among Black Tennesseans, who have traditionally high incompleteness rates, only 21 percent have not completed high school. The low educational attainment of Hispanic immigrants reduces their opportunities in the labor force. Latinos work predominantly in low-skill occupations because these are the only occupations open to them and foreign-born Hispanics fill many jobs that are less desirable to native-born Tennesseans.

But in no educational level are Hispanic workers the majority

The number of Hispanic workers in Tennessee is still small. Even looking within each educational level, Latino workers do not represent the majority of workers. For example, there are about 270,000 persons in Tennessee age 25 and over without a ninth grade education, and Latinos account for only 7 percent of this population. Among the adults with the least education, there are many more non-Hispanic in Tennessee than there are Hispanic workers. This may limit the impact of Hispanics on the wage structure of low-skill work in Tennessee. Conversely, this also means that as high school graduation rates in Tennessee improve, there may be a significant increase in demand for low-skill labor. A small increase in high school completion rates may lead to a decline in the supply of low-wage labor, and this may attract Hispanic immigrants to Tennessee for many years to come. Stated differently, if educational attainment in Tennessee improves, it is reasonable to expect that there will be increasing job availability for future immigrants and the economic demand for immigration will rise.

The low educational level of Hispanic immigrants may carry over to their children

The low educational attainment of workers likely impacts the opportunities of their children as well. If immigrant parents are less able to assist their children in school, then their children may not perform well in school. According to the National Center for Economic Statistics, Hispanic children in Tennessee are twice as likely to drop out of high school than are White, non-Hispanic children. Nationwide, Hispanic children, even second-generation children, are more likely to drop out of high school than their peers. This creates the potential for a multigenerational poverty trap, in which future generations of Hispanic persons are less educated, hold low-skill, low-wage jobs, experience greater risk of unemployment, and are more dependent on social welfare programs. The long-term social costs of this may be quite large to Tennessee.

Table 4.7. Hispanic immigrants have the lowest levels of educational attainment in Tennessee, but there are many more native-born workers with little education than there are immigrants.

	Less than 9 th grade		9 th -12 th grade		High School Diploma		Bachelor's Degree		
	Number	Share	Number	Share	Number	Share	Number	Share	
White Non-Hispanic	216,568	6.6	337,325	10.2	1,965,883	59.5	782,966	23.7	100
Hispanic									
Foreign-born	17,435	37.8	7,113	15.4	16,934	36.7	4,695	10.2	100
Native-born	1,468	7.2	2,332	11.4	11,858	58.1	4,758	23.3	100
Black	34,625	5.8	93,369	15.6	379,778	63.4	90,860	15.2	100

Source: 2005-2009 American Community Survey, 5 percent Public Use Microdata Sample.

Note: Population is defined as adults 25 and over. These estimates represent the average over 2005-2009. During this period, the Hispanic shares were rising.

4.3. Wages for Hispanic Workers

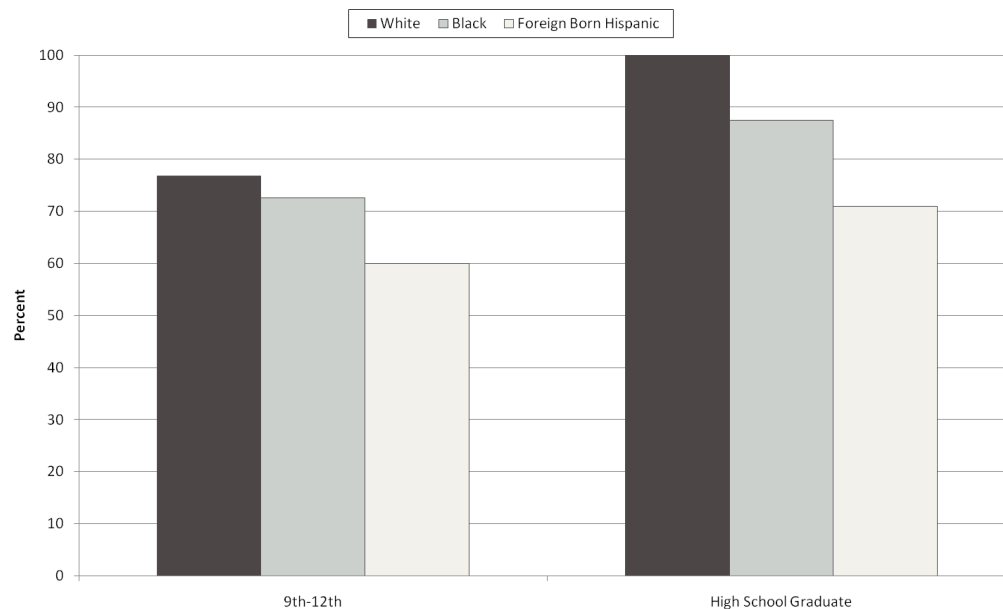
Hispanic workers have lower wages than natives.

There is a wage gap between Hispanic immigrants and native-born workers, both Black and White. This wage gap cannot be explained entirely by the lower educational attainment of Hispanic immigrants. Even holding education fixed, foreign-born workers earn about 30 percent less per hour than their White, non-Hispanic counterparts.

There are numerous possible causes for this wage gap. Immigrant workers tend to speak less English, which reduces their productivity compared to English speaking workers. Another possible cause is that Hispanics workers tend to perform different tasks than their native-born counterparts. This means that Hispanic workers are not competing with natives for jobs, but are competing with other Hispanic workers. Further immigration would decrease the wage of Hispanics relative to native workers (Card 2009).

Another possible explanation for the wage gap may be due to differences in experience. Since Hispanic immigrants are recent arrivals to Tennessee, they tend to have less job-specific work experience than native-born workers. Also, studies show that wage growth is slower for low-skill immigrants than it is for U.S.-born and naturalized citizens. Hispanic workers seem to not gain job skills as fast as native-born workers. This may be due to employers' unwillingness to invest in job-training for immigrants without legal status to work or to language gaps among Hispanic workers. It is likely that all of the explanations play a role in explaining the wage gap.

Figure 4.1. The wage gap for foreign-born, Hispanic hourly workers is larger than for White and Black hourly workers.



Note: The wage gap is measured as a fraction of white high school graduates.

Source: CBER estimates derived from the 2005-2009 American Community Survey, 5 percent Public Use Microdata Sample

5. Impacts of the Great Recession on Hispanic Workers in Tennessee

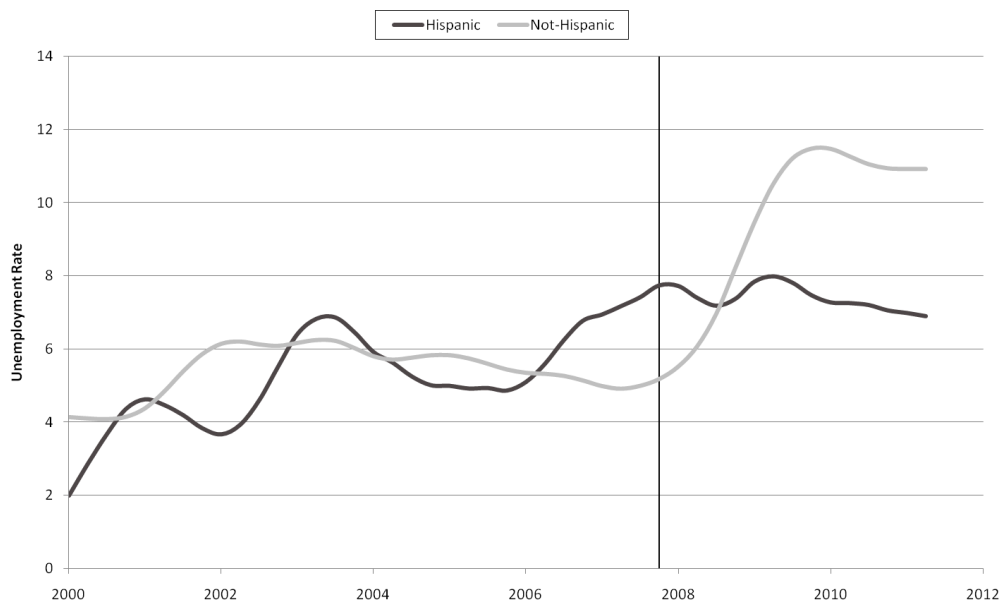
The Great Recession has affected Hispanic and non-Hispanic differently. The unemployment rate for Hispanic workers rose earlier, but less dramatically, than the overall unemployment rate (see Figure 5-1). But Hispanic workers also seem to be returning to work sooner. These new jobs are definitely less favorable; Latinos are working fewer hours per week and at lower wages. This suggests that the Hispanic labor force is more flexible and is more willing to work in less favorable circumstances. One possible explanation for this is that the lack of public services, especially unemployment benefits, causes Latinos to be more sensitive to unemployment spells and more anxious to return to work. Of course, some White workers are ineligible for unemployment benefits and are similarly situated.

Immigrants During the Great Recession

One of the key characteristics of immigrant employment is that it is heavily concentrated in industries that are strongly tied to the overall economy, especially in construction and manufacturing. When the economy is changing, migration is good because it allows workers to go where they are needed. Hispanic workers are mobile and appear willing to work in occupations that are undesirable to many native workers and this makes them a valuable and flexible element of the workforce.

Surveys of unemployment are too small to determine how Hispanics in Tennessee have fared during the Great Recession and its aftermath, but we can see how Hispanics have fared across the South. We have excluded Texas and Florida from this analysis, since they are established gateway states for immigrants, and thus, their foreign-born population is dramatically different from Tennessee's. Louisiana has also been excluded, due to the unique effect of Hurricane Katrina.

Figure 5.1. The unemployment rate for Hispanic workers rose earlier but less dramatically than for their non-Hispanic counterparts.



Note: Unemployment rate of persons age 19-44, from all states in the Census' South Region, excluding Texas, Florida and Louisiana.

The Great Recession officially began on December 1, 2007.

Source: CBER estimates from the monthly Current Population Survey.

Prior to the recession, Hispanic unemployment in the South was at about 5 to 6 percent and roughly equivalent to the unemployment rate of the non-Hispanic population. These results for the South differ from the results in a national study performed by the Pew Hispanic Center, which showed that nationally, unemployment rates among Hispanics were higher than for non-Hispanics (Kochhar et al 2010). The low unemployment rate of Hispanics in the South, combined with the economic growth during this period, helps to explain the rapid rise of immigration to Tennessee and the rest of the South between 2000 and 2010.

Unemployment rates rose earlier for Hispanics and with less severity.

During the Great Recession, the unemployment rate of Hispanics in the South rose, but the timing and magnitude of this rise is dramatically different than for non-Hispanic workers. The unemployment rate of Hispanics began to rise almost two years before the official start of the Great Recession. Between the beginning of 2006 and the end of 2007, the unemployment rate among Hispanics in the South increased by 2 to 3 percent. This mirrors a national trend found in the study conducted by the Pew Hispanic Center.

Why did unemployment rise earlier for immigrants than for other workers? A likely cause was the weakening of the housing market long before the general recession. In some places,

the housing market began to weaken as early as 2005. As we have seen, construction accounts for a large share of Latino employment. Among the top eight detailed occupations for Hispanic workers, four of them are in construction, making Hispanic workers particularly vulnerable to cyclical behavior in the housing market.

Unemployment rate began to rebound sooner for Hispanic workers

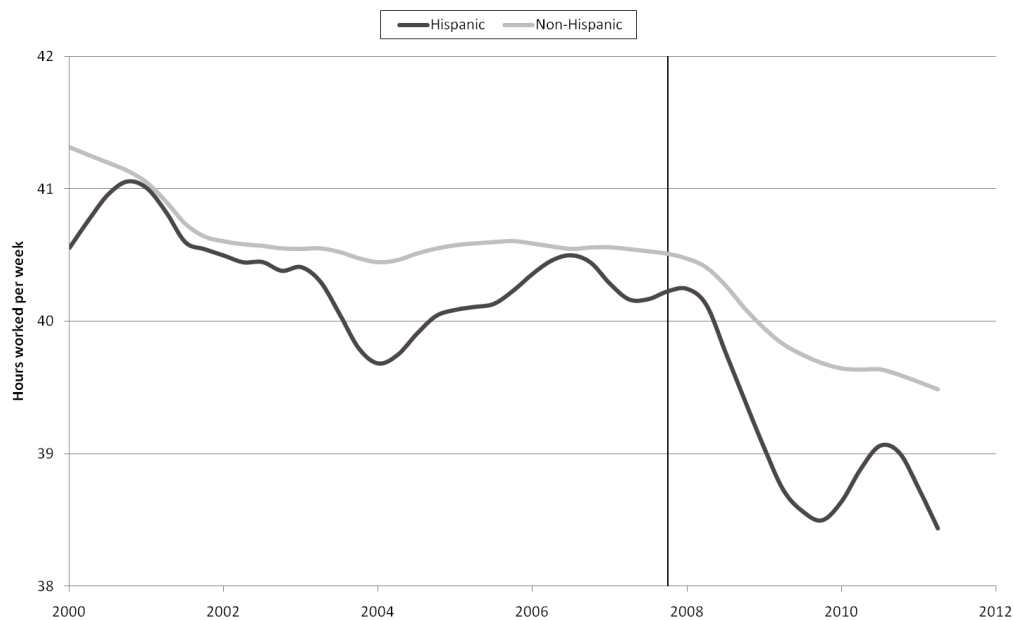
Of equal interest to the early rise in Hispanic unemployment is an early turnaround in rising unemployment rates. The unemployment rate for Hispanic workers in the South probably peaked in early 2008, and has been slowly dropping since then. As with the early rise in Hispanic unemployment rates, this early turnaround mirrors national trends found in the Pew Hispanic Center report.

Why has the unemployment rate fallen for Hispanic workers, when it has barely moved for other workers? One possible reason is that Hispanic workers have been more ready to accept reduced hours and lower wages. The recovery in Hispanic employment rates has been offset by reductions in the average number of hours worked per week and a lower hourly rate for wage-earners. Latinos are returning to work, but only by accepting the compromise to work fewer hours and for less money.

These labor market trends are consistent with the hypothesis that foreign-born workers are valuable precisely because they are flexible. Many Latinos work in industries with seasonal employment cycles, they are willing to migrate to new places, and they are often willing to work more hours and for less pay than are native workers. Because Hispanic workers are less likely to have rigid labor contracts, they are vulnerable during fluctuations in the labor market. But, by the same token, they adjust more easily during recessions; by reducing their wages and the number of hours they work, they return to work faster than many non-Hispanic workers.

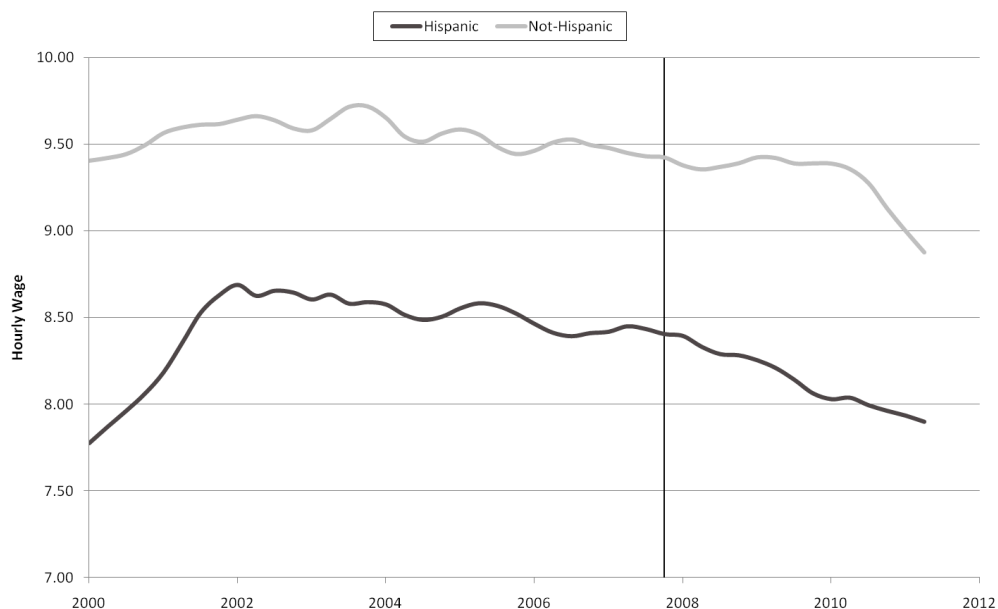
One reason for this flexibility might be that most foreign-born Hispanic workers are ineligible to receive unemployment benefits. Unemployment insurance is one policy tool for smoothing personal income over the business cycle. Since foreign-born workers are ineligible for these benefits, they are hurt more severely by unemployment, and are more willing to return to work under less favorable situations. Stated differently, workers may have a “reservation wage” – that is, a minimum wage below which they are unwilling to work. This reservation wage will be different for each worker, but having unemployment benefits will raise the reservation wage for covered workers, since they may still receive income when they are unemployed. As the recession continues, however, the likelihood of continuing to receive these benefits decreases, and U.S.-born workers might return to work under less favorable conditions.

Figure 5-2. Since the onset of the Great Recession, Hispanic workers have experienced a greater reduction in work hours than have non-Hispanic workers.



Source: CBER estimates from monthly CPS. The population is all workers age 18-44, in the region defined in the text.

Figure 5-3. The wages for Hispanic wage-earners have been declining longer and more steadily than for non-Hispanic wage-earners



Note: Wage adjusted to January, 2000 CPI for Wage-Earners in the South.

The Great Recession officially began on December 1, 2007.

Source: CBER estimates from monthly CPS.

Methodology in Focus: The impact of immigrants on opportunities for native workers

Economists have debated how immigrants impact the opportunities of native workers for the last 30 years. At first glance, it seems obvious that immigrants increase the supply of labor, and thus, that wages must decline for workers. This effect, however, is offset by the fact that immigrants consume goods; they consume food, clothing, housing and services, all of which must be produced, and thus, immigrants, also increase demand for labor. Since immigration raises both the supply and demand of labor, their net impact on wages is not obvious. Furthermore, it is possible that immigrants are migrating to places with vibrant, expanding economies, and thus to places with growing demand for labor. What is needed is a natural experiment to determine the impact of immigrants in the absence of the confounding effects, but natural experiments are difficult to design in the social sciences.

Berkeley economist David Card devised a clever test of this impact. He analyzed the wages in Miami before and after the Mariel boatlift in 1980. In 1980, a sudden influx of Cuban immigrants increased the labor supply in Miami by 7 percent within just a few months. This event was completely random and did not depend at all on the strength or weakness of Miami's labor market, thus David Card argued that it was essentially a "natural experiment." Surprisingly, Card found that the immigration had negligible impacts on low-skilled native-born workers, in fact, he commented that the ability of Miami to absorb the new immigrants without negative impacts was remarkable (Card 1990).

In contrast, Harvard economist George Borjas criticized Card's approach for only looking at one labor market. Since the United States is highly integrated, impacts in one market will have repercussions around the whole country. Suppose native-born jobs in Miami were taken by immigrants. Then low-skilled people elsewhere may have been prevented from moving to Miami and they would have been worse off. Using data across the entire nation, Borjas decomposes wages not only by education, but also by "skill," measured by time in the workforce (2003). Borjas estimated that a 10 percent increase in immigration leads to a 3-4 percent reduction in wages nationally, with this reduction being higher for low-skill native workers.

Subsequent studies have disagreed with Borjas, and the debate continues within economics. In summary, evidence for any impact of immigration on the opportunities of native workers is inconclusive. Most economists would state the truth lies somewhere between Borjas and Card, i.e. that immigrants have a slight negative effect on opportunities for low-skilled native-born workers, but that the overall effect of immigration on the economy is positive.

6. Immigration and Public Policy in Tennessee

The majority of economists agree that immigration, both authorized and unauthorized, is good for the productivity and economic growth of the United States, but they also tend to agree that the fiscal impact of immigrants to state and local governments is negative. This section reviews some economic and fiscal impact studies of immigration in other states and discusses their impact for Tennessee. This section then looks at federal and state immigration policies, including the Tennessee Immigration Enforcement Law, through the lens of economics. It is important to recognize throughout this section that considerable uncertainty persists in determining the economic and fiscal impacts of immigration and immigration policies.

6.1. Economics and Fiscal Impact to State Governments.

Most studies conclude that the net fiscal impact of immigrants is positive. Tax revenues collected from immigrants exceeds the cost of services they use. In this regard, immigrants fare favorably when compared to their low-income, native-born counterparts. The principal reason for this is that immigrants do not receive as many social benefits as their counterparts. In fact, immigrants pay many taxes for services they cannot receive. This fiscal benefit is not equally divided across local, state and federal governments, however; while the net fiscal impact of immigrants at the federal level is certainly positive; the fiscal impact on state and local governments is probably negative.

In a review of 29 reports on the state and local impact of immigration, the Congressional Budget Office finds that:

- state and local government incur costs for providing services to unauthorized immigrants. There is little that state and local governments can do to minimize these costs due to federal regulations and court mandates regarding these services,
- the amount that state and local governments spend on services for immigrants is a small percentage of the amount that these governments pay to provide these services to legal residents, and
- the net fiscal impact of unauthorized immigrants is negative, but modest, at state and local levels (CBO 2006).

Costs: The chief costs to state and local government of immigration come from education, health care, and law enforcement. Of these, K-12 education is by far the largest in Tennessee. According to Tennessee's 2011-2012 budget, 45 cents of each state tax dollar is expected to go to education; of this 45 cents, about three-quarters will go to K-12 education. This far exceeds any other state expenditure. If native-born children of immigrants will soon account for 10 percent of all children statewide, then the impact of immigration on K-12 education costs is quite large. For health care expenses, numerous studies show that immigrants use less health care than their native born counterparts. One possible cause of this is the fear among

immigrants that they risk being deported if they seek medical attention. The primary costs occur when uninsured immigrants seek emergency medical care; these costs are reimbursed to the hospital by TennCare. In Tennessee, 90 percent of the emergency services reimbursed by TennCare are for labor and delivery (Mattson 2007). The third largest possible cost of immigrants comes from the law enforcement system.

Benefits: Immigrants benefit state and local governments primarily through their contributions as consumers and workers. As consumers, immigrants pay sales taxes and excise taxes on gas, alcohol and cigarettes. Sales taxes are the most important component of the state revenues in Tennessee. Since low-income households tend to pay more in sales taxes per dollar of income, and since Tennessee depends more on sales taxes than most other states, Hispanic persons in Tennessee probably contribute more to state and local taxes than in many other states. Immigrants also contribute to local taxes through the property taxes they pay directly or indirectly through their rents, as well as through the property taxes of the firms that employ immigrants or sell goods and services to them. In addition, immigrants pay various payroll taxes. The Social Security Administration estimates that 75 percent of illegal immigrants are “on the books” and pay federal Social Security and Medicare taxes, even though they are ineligible to receive benefits. Similar numbers also probably pay unemployment insurance taxes through employer contributions, even though they are ineligible to receive benefits. Another source of tax revenue is the various business taxes that firms must pay on income. To the extent that immigrants increase the productivity of the economy, this increment in tax revenue can be attributed to immigrants.

Service availability to authorized and unauthorized immigrants

- K-12 Education – Yes
- Social Security – No
- TennCare – Qualified Aliens* are eligible after 5 years from date of legal entry. All residents receive emergency medical care, including child delivery, regardless of legal status.¹
- TANF – Temporary Assistance to Needy Families (“Families First”) - Qualified Aliens are eligible after 5 years from date of legal entry.²
- SNAP - Supplemental Nutrition Assistance Program (“food stamps”) – Available to children under 18 and to Qualified Aliens with 40 quarters of work.³
- WIC – Women, Infants, and Children – Yes.⁴
- NSLP – National School Lunch Program – Yes⁵
- CoverTN and CoverKids – Qualified Aliens.⁶
- EITC – Earned Income Tax Credit Program – Available to parents with valid SSN and legal work and who pay Medicare and Social Security taxes. The Individual Tax Identification Number is not accepted.⁷
- Rental Housing Programs – Legal Permanent and Temporary residents. Children may qualify for their guardians. Rates are pro-rated for unauthorized individuals living in the unit.⁸

* Who are not Qualified Aliens?

Legal Temporary Residents, such as those on a H1 or H2 Visas and unauthorized immigrants.

¹ State of Tennessee, TennCare. <http://www.tn.gov/tenncare/mem-eligibility.html>. Accessed November 1, 2011.

² State of Tennessee. Rules of the Tennessee Department of Human Services: 1240-01-47 Non-Financial Eligibility Requirements - Families First Program <http://www.tennessee.gov/sos/rules/1240/1240-01/1240-01-47.20090405.pdf> Accessed November 1, 2011.

³ State of Tennessee. Food Stamp Program – Eligibility Information. http://www.tn.gov/humanserv/adfam/fs_1.html Accessed November 1, 2011.

⁴ State of Tennessee. About WIC. <http://health.state.tn.us/wic/index.htm> Accessed November 1, 2011.

⁵ State of Tennessee. Basic facts about free and reduced price meals. <http://www.tn.gov/helpforfamilies/Facts-FreeMeals.pdf> Accessed November 1, 2011.

⁶ State of Tennessee. CoverKids Eligibility. <http://www.coverkids.com/WebForms/Eligible.aspx> Accessed November 1, 2011.

⁷ IRS. <http://apps.irs.gov/app/eitc2010/SetLanguage.do?lang=en> Accessed November 1, 2011.

⁸ State of Tennessee. <http://www.thda.org/hcv/appbook.pdf> Accessed November 1, 2011.

Findings from other States

A variety of studies from other states have attempted to estimate the net impact of immigrants at the state and local level. The findings of these studies include:

- A 2006 study in **Colorado** estimated that the contribution to state revenues of undocumented immigrants is about 70-86 percent of the value of the services they consume. The study did not consider public expenditures for native-born children of immigrants nor did it consider state income stemming from business taxes and the net impact of immigrants in the local economy (Jones and Baker 2006).
- A 2008 study in **Nebraska** estimated that Hispanic immigrants contribute 7.9 percent to gross state production, and that immigrants pay 7 percent more than the services received. The study did not consider expenditures on native-born children of immigrants or on income from business taxes. Hispanic immigration to Nebraska has similar demographic characteristics to Tennessee; however, the rural immigration flow is probably stronger in Nebraska than in Tennessee (Decker et al 2008).
- A 2006 study by the **Texas** Comptroller's Office estimated that unauthorized immigrants are 6 percent of the population, and their presence contributes 2.6 percent to the gross state product. Unauthorized immigrants generate 36 percent more state revenue than the expenditures on services they consume. The study did not consider expenditures on native-born children of immigrants or on income from business taxes. Texas's Hispanic population is much larger than Tennessee's and is not directly comparable, however, the structure of state revenues in Texas is generally comparable to that in Tennessee (State of Texas 2006).
- A 2008 study by the University of **Arizona** estimated that immigrants contribute 60 percent more to state revenues than they receive. Arizona's Hispanic population is much larger than Tennessee's, but this study is unique for its consideration of a broader class of students (all English Language Learners, including native-born) and for consideration of the fiscal benefits due to business taxes. Sales taxes alone did not nearly balance out the costs, but the additional revenues from business taxes on the wages and incremental productivity attributed to immigrants led to the finding that immigrants contribute more than they receive (Gans 2008).
- A 2008 study in **Arkansas** estimated that immigrants are almost tax neutral, paying 8 percent more than they utilize in services. This study included the native-born children of immigrants in their costs and indirect business taxes in their benefits. In addition, the flows of immigrants to Arkansas and Tennessee are similar, and the majority of Arkansas' personal tax revenues, like Tennessee's, come from sales taxes. Arkansas does, however, also have a small state income tax, which Tennessee does not have. (Capps et al 2008).

In summary, while the estimates of the net fiscal costs vary widely, the results suggest that the net state and local fiscal costs of immigration is likely to be negative in Tennessee, but this net cost is also likely to be modest. More precisely, immigrants probably yield a net fiscal benefit, since they are ineligible for many benefits that are available to low-income citizens. But if we include the U.S.-born children of immigrants in the calculations, than immigrants and their

children probably have a modest net cost on state and local governments. Many of the studies that show a large net benefit are biased because they may not consider the full cost of immigration, especially the costs of educating the native-born children of immigrants. Many of the studies showing a large net cost are biased because they may not consider the full benefits of immigration, especially tax revenues on the economic growth due to immigration. The study that most closely matches the situation in Tennessee is the Arkansas study, which determined that the net fiscal impact of immigrants is slightly positive.

It can safely be said, however, that immigrants and their children certainly increase the costs of state programs, especially public education, but also health care and corrections systems. Based on studies for other states, most, but probably not all, of these costs in Tennessee are offset by increases in revenues. Unfortunately, the fiscal costs of immigration are much more transparent than the fiscal benefits; it is easy to reasonably attribute 6 to 10 percent of K-12 education costs to immigrants based on their share of the student population, whereas it is much more difficult to see how the presence of immigrant labor increases revenues collected from sales, property, and business taxes, as well as increases economic productivity across the state. While the benefits of immigration are more difficult to quantify than the costs, these studies suggest that the benefits are substantial.

6.2. Immigration Policy

There has been much interest in immigration policy across the state of Tennessee in the last few years. In Spring of 2011, the state legislature passed the Tennessee Immigration Enforcement Law, requiring employers to use a free federal system, E-Verify, to check the immigration status of all new employees. This law creates a state regulatory instrument to enforce federal immigration policy. This section briefly summarizes federal immigration policy as well as scientific and economic studies of alternative policies. The section does not make any policy recommendations, but reviews the issues that need to be addressed in a well-balanced policy approach to immigration.

Most policy options affecting immigration are best made at the Federal level rather than the national level. The options include:

1. Keep the status quo, which makes undocumented immigration and their employment illegal, but provides little actual enforcement within the United States.
2. Strict enforcement of the regulations that already exist, especially against employers who hire undocumented workers.
3. Large-Scale deportation of unauthorized immigrants.
4. Regularizing the status of current unauthorized immigrants (i.e. granting them amnesty), as well as providing a regular pathway for future immigrants to obtain legal status.

We do not discuss in great detail these options since they are discussed elsewhere. A thorough economic analysis of these policy options was prepared by the conservative Cato Institute in 2009, which find that immigration is good for the average American worker. Those policies that restrict immigration to the United States will reduce the GDP and average wages, while those policies that regularize immigration will increase GDP and average wages. One reason why immigration is good for the average worker is because immigrants tend to reduce the cost of providing many popular services used by the general population of the United States.

It is important to note, however, that immigration does create definite winners and losers, and that economic studies struggle to account for this. In particular, while immigration helps the average American worker, immigration also hurts low-skill, native-born workers in the United States. The public debate must focus on how this choice between what is beneficial for the average worker, and what is beneficial for low-skill workers is to be decided. Economic theory suggest that when a policy is good for the average worker, then it is possible to set up transfers from those who gain to those who lose, so that nobody is made worse off. This is difficult in the current situation, however, since it is difficult to determine who is truly hurt by immigration.

Another point that is worth emphasizing, is that many jobs immigrants currently have not been taken from native-born workers, but have rather been created by the immigrants

themselves. Thus, if immigrants were suddenly excluded from the labor market, not all of their jobs would be offered to native-workers; many of these jobs would disappear entirely. Some jobs have been created because immigrants themselves demand services, and this creates a demand for labor. Other jobs are created because immigrants reduce the cost of labor, allowing some firms to hire more workers. If immigrants were excluded from the labor market, these jobs would disappear entirely. So it is erroneous to look at the number of jobs held by immigrants and assume that all of these jobs are taken from native-born workers.

State-based immigration policies probably place firms at a disadvantage

Few economic studies have considered the impact of state-based immigration policies. The sentiment for this policy approach is understandable; many states are frustrated with the inaction of federal government to determine an effective policy, and some states are responding by enacting local immigration policies. These state-level immigration restrictions are likely to be more harmful to the average worker than national-level restrictions, however. When the federal government increases regulations, there is little that firms can do to avoid the costs. This is not true for states, however. When states increase regulations, firms can quite easily avoid the costs by shifting operations out-of-state. The inter-state economy of the United States is extremely flexible.

Many firms can easily adjust to higher costs in one state through either relocation or through sourcing their materials from other states. For example, if the price of agricultural labor goes up in Tennessee, grocers can easily purchase produce from elsewhere. If the cost of labor for poultry processing goes up in Tennessee, large firms can readily shift production and jobs to other states with lower labor costs.

Thus, the impacts of immigration policies are very different when they are enacted at the state scale than at the federal level. State-level policies are much less likely to have positive effects on wages and employment than are national policies. We know that immigration restrictions have costs and benefits; they likely impose a cost on the average worker, but benefit low-skill workers. These costs are likely higher, and the benefits less, with state-level policies than with national level policies. Frustration with federal policy is understandable, but state-level approaches are likely to harm, not help, individual states.

Summary

The key findings from most of the economic evidence is that an open immigration policy is good for the American economy, and is good for the average American, but that a closed immigration policy would be better for the least skilled Americans. This is a tough tradeoff: between the middle class and the least educated Americans. Economic theory can help us to determine the relative costs and benefits, but it cannot provide an answer as to which policy option is preferred by society. Similarly, we also point out that state-level restrictions on

immigration are likely to hurt Tennessee; in order to minimize the negative effects of immigration policy changes, these changes really need to be implemented across the entire nation. Immigration policy is one arena in which all the states need to cooperate on.

Lessons from the Immigration Reform and Control Act of 1986

Valuable lessons about the role of immigrants in the economy can be gained from studying the experiences of the Immigration Reform and Control Act of 1986, or IRCA. Passed in 1986, IRCA gave amnesty to nearly 3 million immigrants and made controls on future immigration more stringent. Specifically, IRCA made it illegal to knowingly employ or hire unauthorized immigrants, and made employers responsible for determining the legal status of their employees.

Numerous studies have documented how amnesty improved the wages of immigrants (Rivera-Batiz 1999). Much of this wage increase is explained by observable changes, such as improvement in English language skills and in job training. As workers become legalized, more job opportunities become available. This increases the economic incentive for learning English. In addition, legal status increases an employer's willingness to provide job-specific training. For example, in agricultural jobs, legal immigrants are more likely to be foremen or to operate machinery.

But heightened security after the passage of IRCA has also permanently changed the nature of migration from Mexico, and has actually increased, not decreased, the duration of immigration (Massey et al. 2002). Prior to IRCA, migration from Mexico was often cyclical, with migrants freely traveling back and forth across the border according to seasonal work availability. Following IRCA, however, the federal government attempted to reduce illegal immigration through heightened border security. This increased the costs and risks of each border crossing. Migrants did respond by crossing the border less, but not as expected. Rather than staying in Mexico, they actually stayed in the United States for longer periods. The post-IRCA enforcement turned a predominantly cyclical migration flow into a permanent migration flow. This also increased the number of women and children traveling across the border; as the migration of workers changed from cyclical to permanent, many of their families decided to permanently settle in the United States also.

Amnesty programs such as IRCA increase the long-run productivity of immigrants by increasing returns to human capital. Immigrants become more likely to learn English and employers are more likely to invest in their workers. One time amnesty does not, however, address the basic economic demand for low-skill labor. Illegal immigration continued after IRCA despite heightened security. Effective approaches to immigration reform should acknowledge the demand for immigrants and provide mechanisms for employers and workers to legally satisfy these needs, while mitigating some of the fiscal costs that currently exist.

7. Neighborhood Segregation

Nationally, Hispanic persons tend to live in significantly segregated neighborhoods; however, the degree of segregation is not as severe as for Black households. Moreover, studies show that segregation is not exclusively an urban phenomenon; large numbers of Hispanic persons live in suburban and rural places, with similar degrees of segregation as in urban places.

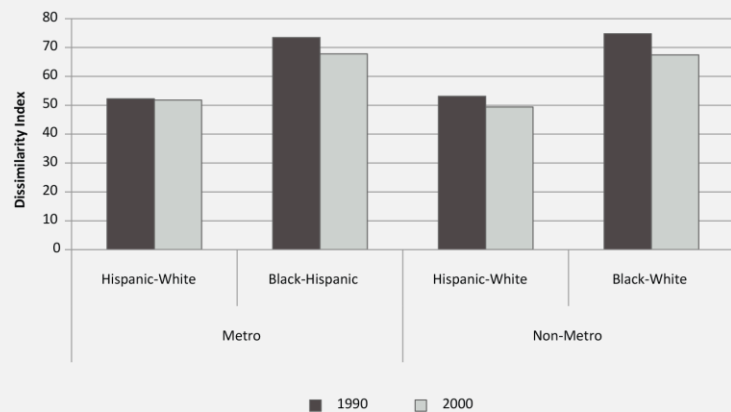
Possible Benefits to Ethnic Segregation

There are many problems with ethnic segregation: it may be the result of discrimination, may promote multi-generational poverty traps, or it may limit the availability of job information if a neighborhood becomes completely closed off from the job market. But researchers have also identified how ethnic segregation, as distinct from Black-White segregation, may serve some beneficial functions as well.

For example, by living together, immigrants reduce their isolation from each other and their vulnerability in a new place. Ethnic segregation increases the efficiency of informal support networks, such as networks that share information about job opportunities, or improve the ability of local and religious organizations to provide informal assistance with child care, English language education, and other important services. Ethnic segregation also helps to achieve a critical mass with which to enable efficient political representation. Importantly, the formation of ethnic neighborhoods helps to foster businesses that cater to the consumer and service needs of immigrants. These businesses, in turn, help to encourage self-employment and entrepreneurship among minorities. Also, minority owned businesses are more likely to hire other minorities, further increasing employment opportunities for new immigrants.

Residential Segregation in America

Figure 7-1 Hispanic Americans experience segregation in both urban and rural places, but less than Black Americans.



Source: Lichter et al, 2007.

In a study published in the journal *Demography*, it was found that Hispanic persons in America experience significant residential segregation, but not as much as Black persons. The index of segregation used here measures the fraction of residents that would have to relocate in order to make a neighborhood reflect the national average. Thus, about 50 percent of Hispanic residents would need to relocate in order to eliminate residential segregation.

The study also found that while Black-White segregation is slowly decreasing, there is no noticeable change in Hispanic-White segregation in Metropolitan areas, and slight decrease in Non-metropolitan areas.

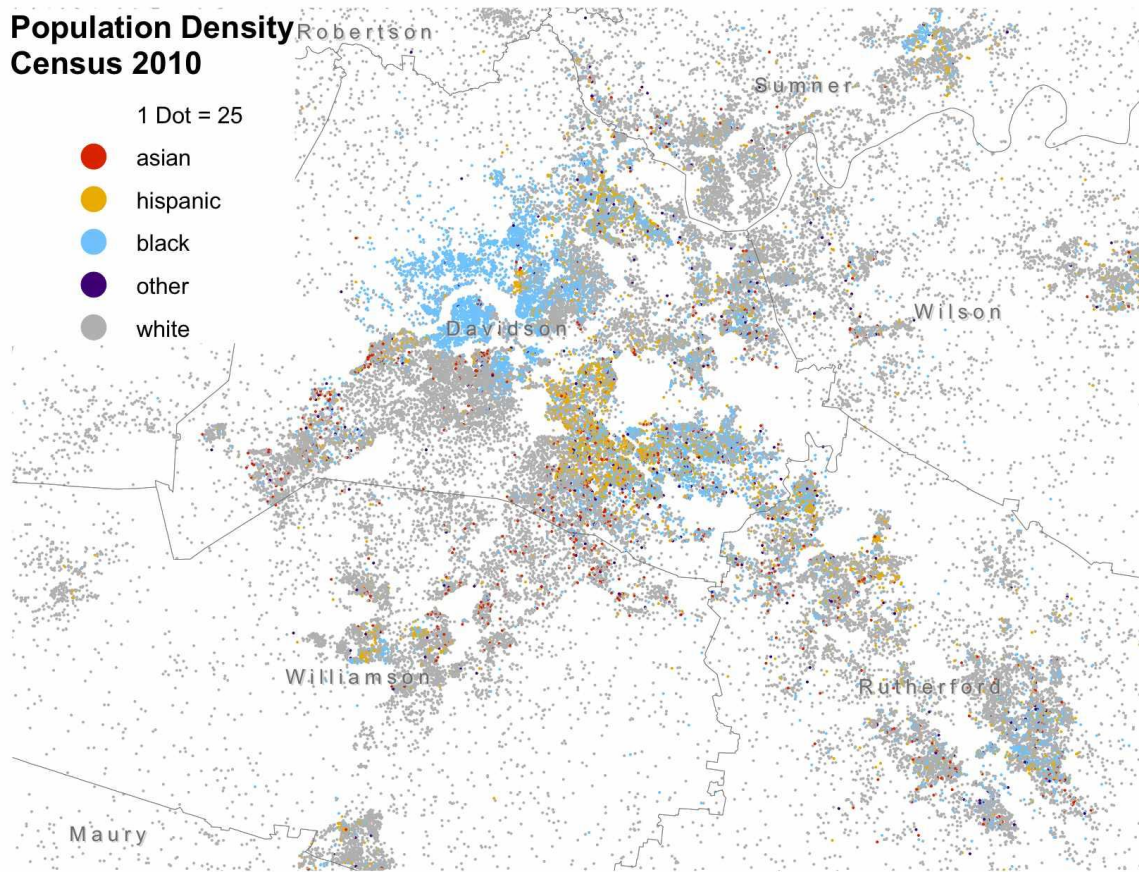
References

Within Tennessee, the residential segregation of Hispanics is not of the same intensity in all places. We show here maps of the population density by race and ethnicity for the Nashville-Davidson and Memphis metropolitan areas. In Davidson County, Hispanic residents are much more segregated than White residents, but they are also much less segregated than Black residents. Places such as Antioch, which have seen a large increase in the number of Hispanic residents, are not as segregated as historically Black neighborhoods.

In contrast, the Hispanic population in Shelby County is much more segregated. Hispanic neighborhoods in Shelby are also likely to be located next to predominantly Black neighborhoods. It is possible that Hispanic segregation in these places mirrors the degree of Black-White segregation already present.

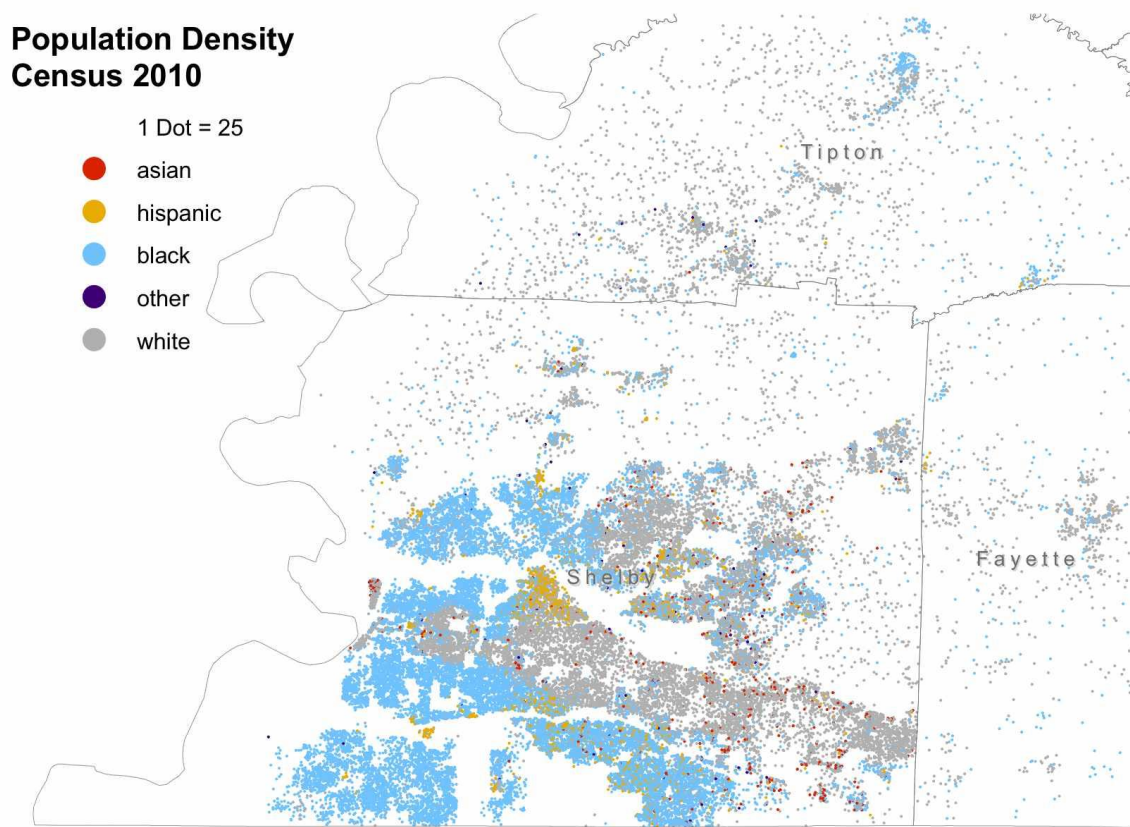
The degree of residential segregation among Hispanics across Tennessee is not constant, with Hispanics in some places experiencing much more ethnic segregation than in other places. It is likely that there is no single-best approach toward addressing Hispanic segregation and integrating Hispanics more fully into American culture. The policies that work in one place may be insufficient or inappropriate in other places. Segregation is best addressed at the city and community level than at the state level, however state officials can work with local officials and organizations to obtain federal funding for community infrastructure and economic development

Figure 7.2. Population Density in Nashville-Davidson Metropolitan Area by Race and Ethnicity



Source: CBER tabulations of 2010 Decennial Census

Figure 7.3. Population Density by Race and Ethnicity in Shelby County



Source: CBER tabulations of 2010 Decennial Census

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Appendix: Hispanic Population by County in 2010 and 2000

County	2010			2000		
	Hispanic	Total	Share	Hispanic	Total	Share
Anderson	1768	75129	2.4	787	71330	1.1
Bedford	5083	45058	11.3	2811	37586	7.5
Benton	291	16489	1.8	157	16537	0.9
Bledsoe	255	12876	2.0	138	12367	1.1
Blount	3441	123010	2.8	1120	105823	1.1
Bradley	4664	98963	4.7	1822	87965	2.1
Campbell	472	40716	1.2	269	39854	0.7
Cannon	210	13801	1.5	157	12826	1.2
Carroll	595	28522	2.1	386	29475	1.3
Carter	890	57424	1.5	504	56742	0.9
Cheatham	910	39105	2.3	437	35912	1.2
Chester	343	17131	2.0	150	15540	1.0
Claiborne	265	32213	0.8	192	29862	0.6
Clay	126	7861	1.6	108	7976	1.4
Cocke	628	35662	1.8	354	33565	1.1
Coffee	2007	52796	3.8	1051	48014	2.2
Crockett	1274	14586	8.7	793	14532	5.5
Cumberland	1307	56053	2.3	578	46802	1.2
Davidson	61117	626681	9.8	26091	569891	4.6
Decatur	308	11757	2.6	229	11731	2.0
DeKalb	1239	18723	6.6	633	17423	3.6
Dickson	1573	49666	3.2	484	43156	1.1
Dyer	1002	38335	2.6	434	37279	1.2
Fayette	858	38413	2.2	298	28806	1.0
Fentress	189	17959	1.1	90	16625	0.5
Franklin	1029	41052	2.5	620	39270	1.6
Gibson	1012	49683	2.0	540	48152	1.1
Giles	471	29485	1.6	266	29447	0.9
Grainger	530	22657	2.3	226	20659	1.1
Greene	1690	68831	2.5	641	62909	1.0
Grundy	113	13703	0.8	141	14332	1.0
Hamblen	6711	62544	10.7	3299	58128	5.7
Hamilton	14993	336463	4.5	5481	307896	1.8
Hancock	13	6819	0.2	25	6786	0.4
Hardeman	376	27253	1.4	273	28105	1.0
Hardin	497	26026	1.9	260	25578	1.0
Hawkins	669	56833	1.2	417	53563	0.8
Haywood	723	18787	3.8	524	19797	2.6
Henderson	532	27769	1.9	247	25522	1.0
Henry	553	32330	1.7	311	31115	1.0
Hickman	455	24690	1.8	222	22295	1.0
Houston	129	8426	1.5	101	8088	1.2
Humphreys	278	18538	1.5	148	17929	0.8
Jackson	164	11638	1.4	89	10984	0.8
Jefferson	1619	51407	3.1	588	44294	1.3
Johnson	269	18244	1.5	150	17499	0.9

	2010			2000		
	Hispanic	Total	Share	Hispanic	Total	Share
Knox	15012	432226	3.5	4803	382032	1.3
Lake	136	7832	1.7	109	7954	1.4
Lauderdale	564	27815	2.0	314	27101	1.2
Lawrence	689	41869	1.6	399	39926	1.0
Lewis	221	12161	1.8	136	11367	1.2
Lincoln	885	33361	2.7	321	31340	1.0
Loudon	3395	48556	7.0	894	39086	2.3
McMinn	1482	52266	2.8	884	49015	1.8
McNairy	396	26075	1.5	229	24653	0.9
Macon	919	22248	4.1	349	20386	1.7
Madison	3306	98294	3.4	1572	91837	1.7
Marion	361	28237	1.3	202	27776	0.7
Marshall	1386	30617	4.5	767	26767	2.9
Maury	3909	80956	4.8	2264	69498	3.3
Meigs	176	11753	1.5	63	11086	0.6
Monroe	1448	44519	3.3	684	38961	1.8
Montgomery	13752	172331	8.0	6960	134768	5.2
Moore	70	6362	1.1	45	5740	0.8
Morgan	188	21987	0.9	120	19757	0.6
Obion	999	31807	3.1	616	32450	1.9
Overton	202	22083	0.9	138	20118	0.7
Perry	131	7915	1.7	61	7631	0.8
Pickett	67	5077	1.3	41	4945	0.8
Polk	233	16825	1.4	117	16050	0.7
Putnam	3858	72321	5.3	1891	62315	3.0
Rhea	1187	31809	3.7	474	28400	1.7
Roane	710	54181	1.3	359	51910	0.7
Robertson	3903	66283	5.9	1447	54433	2.7
Rutherford	17500	262604	6.7	5065	182023	2.8
Scott	120	22228	0.5	120	21127	0.6
Sequatchie	462	14112	3.3	93	11370	0.8
Sevier	4787	89889	5.3	884	71170	1.2
Shelby	52092	927644	5.6	23364	897472	2.6
Smith	417	19166	2.2	200	17712	1.1
Stewart	250	13324	1.9	124	12370	1.0
Sullivan	2321	156823	1.5	1090	153048	0.7
Sumner	6308	160645	3.9	2291	130449	1.8
Tipton	1269	61081	2.1	622	51271	1.2
Trousdale	198	7870	2.5	110	7259	1.5
Unicoi	694	18313	3.8	342	17667	1.9
Union	249	19109	1.3	140	17808	0.8
Van_Buren	50	5548	0.9	18	5508	0.3
Warren	3224	39839	8.1	1885	38276	4.9
Washington	3633	122979	3.0	1482	107198	1.4
Wayne	277	17021	1.6	142	16842	0.8
Weakley	700	35021	2.0	402	34895	1.2
White	425	25841	1.6	239	23102	1.0
Williamson	8166	183182	4.5	3197	126638	2.5
Wilson	3691	113993	3.2	1127	88809	1.3