Profile of Immigrants in Napa County

By Randy Capps, Kristen McCabe, and Michael Fix

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May 2012

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Executive Summary

The Napa Valley has a long history of welcoming immigrants. Large numbers of immigrants have worked in Napa's fields for decades, just as they have across other California agricultural regions. The Valley's wine industry was started by immigrants, and large numbers of immigrants work in wine-related sectors such as vineyards, wineries, and hospitality. Napa County's year-round immigrant labor force has grown substantially over the past two decades, and large numbers of immigrants now also work in construction, health care, and other diverse industries.

This report by the Migration Policy Institute (MPI) was commissioned by the Napa Valley Community Foundation. It provides a profile of the county's immigrants using the most up-to-date data. The report also provides an estimate of immigrants' impact on the county's economy and their fiscal impacts — that is the state and local taxes they pay and the costs of the education, health, social, and other public services they receive.

Throughout this report, we focus on four primary demographic groups:

- Latino immigrants, chiefly from Mexico
- US-born Latinos (or Latino natives), most of whom are children under age 18 living in immigrant households
- Non-Latino immigrants, including Asians and those from European origins
- US-born Non-Latinos (or non-Latino natives), the vast majority of whom are non-Hispanic whites

Key findings, based on analysis of the most recent data available from the US Census Bureau and on telephone interviews with key informants in Napa County, include:

Demographic changes in Napa County. Immigrants are contributing to rapid demographic change in the county, especially in the major southern urban areas and in Calistoga. This change is most evident in the child and young working-adult populations.

- Napa County's population is 23 percent foreign-born, about average for the northern counties in the Bay Area, but below the statewide average of 27 percent. The county's immigrant population reached 32,000 in 2010, a 35 percent increase from 2000 and a 150 percent increase from 1990.
- Twenty-six percent of households in Napa County are immigrant households — i.e., households with an immigrant head and/or immigrant spouse. The immigrant share is higher for households than individuals because many households include both immigrants and natives.
- Latinos are leading the county's population growth. The number of Latino residents nearly tripled from 15,000 to 44,000 between 1990 and 2010, while the number of non-Latinos (the vast majority of whom are white) remained unchanged at about 95,000. These trends are most evident among the child population, as the number of Latino children rose 4,500 from 2000 to 2010 and the number of non-Latino children fell by 3,000.
- The county's non-Latino population is rapidly aging. Between 1990 and 2009, the number of non-Latinos over age 45 grew by about 8,000, while the number in prime working ages (25 to 45) fell by about 10,000. Like the nation as a whole, the Napa Valley is becoming increasingly dependent on immigrants and their children for economic growth and to support an aging white population.
- Due to immigration, in Napa as in California, Latinos have become the largest demographic group of schoolchildren. During the 2008-09 school year, Latinos were 46 percent of students in

Napa County public schools, and their share was highest in Calistoga Unified School District (74 percent) and lowest in Howell Mountain Elementary District (38 percent).

- Close to half (45 percent) of all children enrolled in Napa County's public schools were English Language Learners (ELLs) or former ELLs in 2008-09. Almost a quarter of students (4,700 out of 20,400) were ELLs, while a similar number (4,500) were former ELLs who had been reclassified as bilingual. The share of ELL children who have learned English and become bilingual has been rising.
- Two-thirds of Napa County's immigrants are from Latin America. In 2008-09, 63 percent were of Mexican origin and a small percentage originated in other Latin American countries. The county's Mexican immigrants are evenly distributed between recent migrants and long-term settlers, with about a third entering the United States before 1990, another third entering during the 1990s, and the remaining third entering after 2000.
- The relatively high share of immigrants from Mexico is correlated with a relatively high share of unauthorized immigrants in the county (33 percent versus 26 percent in California). We estimate the county's unauthorized population at between 10,000 and 11,000 in 2006-08.
- Napa County's immigrants are less likely to be naturalized citizens than immigrants statewide: 30 versus 37 percent.

Economic well-being. Napa is one of the highest-income counties in California, and immigrants appear to share in the county's prosperity when compared to their statewide peers. Latino immigrants, however, are not as prosperous as other groups of immigrants, though they fare better than Latino immigrants statewide on some important socio-economic indicators.

- Median annual household income was $74,000 for non-Latino natives and $77,000 for non-Latino immigrants in Napa County in 2008-09. The median for Latino immigrants in Napa County was $46,000, far lower than for other groups but almost 10 percent above the statewide median ($42,000).
- Latino immigrants had a much lower poverty rate in Napa County (10 percent) than California (21 percent). The poverty rate for non-Latino immigrants was the same as the rate for Latino immigrants; it was 5 percent lower for natives.
- The poverty rate for immigrants living in the county fell from 17 percent in 1990 to 15 percent in 2000 and 10 percent in 2009. Falling poverty suggests that many Latino immigrants have experienced upward mobility during the past two decades.
- Immigrants' health insurance coverage is much higher in Napa County than California. In 2008-09, 61 percent of Latino immigrants in the county had employer-provided or other private coverage, almost double the rate for their counterparts statewide (36 percent). Non-Latino immigrants and natives had even higher private coverage (74 and 81 percent respectively, both above statewide averages). Napa County's employers, then, provide health care coverage at a higher rate than elsewhere in the state. Additionally, over 1,000 low-income children (mostly immigrants) are covered by Kaiser, a private insurance company, in an arrangement set up by the nonprofit sector to replace lost coverage through the county's former Healthy Kids program.

Relatively high private coverage of Latino immigrants and other groups reduces public costs through Medi-Cal, Health Families, and the County Medical Services Program, as well as emergency room and clinic costs for the uninsured.

Housing and commuting. Most immigrants in Napa County own their homes, but their housing options are limited by high costs and restrictions on housing development stemming from the Agricultural Preserve, which has protected farming lands and contributed to Napa Valley becoming a leading wine-producing region. Many Latino immigrants experience housing hardship in the form of crowding and high

rent or ownership burdens; others commute from neighboring counties where housing is less expensive.

- In 2005-09, 55 percent of immigrants owned their homes, compared with 67 percent of natives. Forty-three percent of Latino immigrants owned their homes, compared with 72 percent of non-Latino immigrants. Latino immigrants in California were only slightly more likely than those in Napa County to own homes (45 versus 43 percent), while non-Latino immigrants statewide were less likely than those in the county to own homes (60 versus 72 percent).
- In 2008-09, 39 percent of immigrants working in Napa County lived in other counties, primarily Sonoma and Solano. The share of immigrants who commute in from other counties was higher than native-born workers (31 percent), and has been rising. The fiscal impacts of these commuters (i.e., their taxes paid versus services received) differ from those of county residents.
- High housing costs appear to be a primary motivation for commuting among Latino immigrants, as in-commuters have lower earnings than resident workers. In 2008-09, Latino immigrant workers who lived in the county had median annual earnings of $26,000 compared with $20,000 for Latino immigrants who commuted to work in Napa County but lived elsewhere. This income pattern does not hold true for other groups of workers, suggesting that housing costs may be less of a factor in their commuting decisions.
- Forty-one percent of Latino immigrant households in the county that rented were living in crowded conditions — defined as more than one person per room. This was almost three times the rate for US-born Latino households that rented (15 percent) and more than 10 times the rate for non-Latino households (3 percent). Living in crowded housing can lead to household stress, less responsive parenting, irregular sleep patterns, a higher risk of catching infectious diseases, and other risk factors for children's development. Respondents reported especially high rates of overcrowding in Calistoga, the only significant rental housing location for low-income workers in the Upvalley.
- Sixty-four percent of immigrant households that owned homes spent more than 30 percent of their income on housing costs, and 35 percent spent more than half their incomes on housing. Thirty percent of monthly income is the federal government's standard for a moderate housing burden, and 50 percent is the standard for a severe burden. Housing costs were a lower but still substantial share of income for other households in the county.

Immigrants in the Napa County workforce. Immigrants are overrepresented in Napa County's workforce, especially in the key wine-related sectors of agriculture, manufacturing, and hospitality. Latino immigrants, especially men, have high employment rates but relatively low earnings compared to other county workers, mostly as a result of lower educational attainment and limited English proficiency.

- In 2008-09, immigrants represented 33 percent of workers compared with 21 percent of Napa County's resident population. Latino immigrants were 20 percent of workers and 14 percent of the population. Latino immigrants are younger and more likely to commute into Napa County for work than other populations.
- The number of immigrant workers grew by 99 percent during the 1990s and 60 percent after 2000, while the number of native-born workers grew by only 15 percent and 9 percent, respectively, during these periods. Latinos were the fastest-growing group of immigrant workers during the 1990s, but were outpaced by non-Latinos (mostly Asians) after 2000.
- Eighty-nine percent of Latino immigrant men ages 18 to 64 were employed compared with 83 percent of non-Latino immigrant men and 76 percent of US-born men. Among women the pattern was reversed, with lower employment among Latina immigrants (52 percent) than US-born women (71 percent). The relatively high employment rate for Latino immigrant men, however, means that Latino immigrant households are more likely than other households to include at least one worker.

- In 2005-09, immigrants comprised 73 percent of agricultural workers, 39 percent of manufacturing workers, and 29 percent of hospitality workers in Napa County. The vast majority of immigrant agricultural workers were employed in vineyards. Beverage production — mostly wineries — accounted for 54 percent of immigrant manufacturing employment. Thus immigrants constituted high shares of workers in key sectors of the Napa Valley economy.
- Median earnings were lower for immigrants than US-born workers ($26,000 versus $41,000). Latino immigrant workers had median earnings of $24,000. Median earnings were lower for immigrants than natives in all industries except hospitality, where natives were more likely than immigrants to work part-time and part-year. Earnings gaps between immigrants and natives were especially large in agriculture and manufacturing.
- Forty-six percent of immigrant workers had less than a high school education, versus just 4 percent of US-born workers. Eighty-six percent of immigrants working in agriculture lacked a high school education. Sixty percent of immigrant workers overall were Limited English Proficient (LEP) — defined as not speaking English very well. Among immigrants working in agriculture, the share was 89 percent.

Immigrant contributions to county economic growth. Napa County had an estimated gross domestic product (GDP) of $7.18 billion in 2009. To assess immigrants' impact on GDP, we develop upper- and lower-bound estimates of immigrants' contributions to the local economy.

- Our upper-bound estimate is $1.07 billion, based on the county's total GDP ($7.18 billion) multiplied by labor's share of national GDP in 2009 (60 percent), multiplied by the immigrant share of county workers in 2008-09 (33 percent), and then multiplied by the relative median earnings of immigrants versus all workers (75 percent). This estimate amounts to approximately 15 percent of county GDP in 2009.
- Our lower-bound estimate of $317 million is based on the direct, indirect, and induced effects of immigrants' employment in the four central sectors of the county's wine industry: vineyards, wineries, accommodations, and restaurants. The direct contributions of immigrant workers to GDP or "value added" of these four sectors was $97 million, and the indirect effect of immigrant employment in these four sectors on other sectors of the county's economy was $132 million. Immigrant households with workers in these four sectors spent $87 million in the Napa County economy. This household spending impact was calculated after subtracting payroll taxes, remittances, and the incomes of immigrants who commute to Napa from other counties.

Fiscal impacts. State and local expenditures on immigrants were generally proportional to their share of Napa County's population, except in the area of public education, where costs were higher. Immigrant families are typically younger and have more children in the public schools than native families — a pattern that generally prevails at times of high immigration. Expenditures on Napa Valley natives were generally proportional to their share of Napa County's population, except in the area of public education, where costs were lower.

- In 2008-09, immigrant households paid $117 million in state and local taxes — including income, sales and use, and property taxes. Due to their lower incomes, immigrants' share of taxes paid (21 percent) was somewhat lower than their share of households (26 percent) but the same as their share of the total population in those years (21 percent). Native-born households' share of taxes paid (79 percent) was slightly higher than their share of households (74 percent) but also the same as their total population share (79 percent). We did not estimate federal taxes or other sources of state and local revenue. Most taxes paid by immigrants (like others) go to the federal government.
- Immigrants and their families accounted for $176 million in state and local expenditures — including public K-12 education, public health, public assistance, corrections, and general government at the local level. (The figure would be $121 million if we only included the foreign-born

children of immigrants.) Children in immigrant families accounted for 50 percent of expenditures in public schooling. Immigrants accounted for 23 percent of expenditures in all other areas, only slightly above their population share in 2008-09. Almost half of the county's school-age children are from immigrant households, but the vast majority of these children are themselves US-born citizens.

- Most of immigrants' public schooling costs are attributable to US-born children with immigrant parents ($55 million out of $71 million). When only immigrant children are counted, the costs of public schooling fall from $55 million to $16 million.

Recommendations

This report makes clear that one key to Napa County's future lies with immigrants and their children. Without these populations, the county's workforce would shrink, and economic activity would be reduced. To maximize the productivity of the Napa County workforce and minimize the costs of immigrants and their families, we offer the following recommendations:

- Invest in English instruction, high school equivalency courses, and other basic education services to improve the workforce preparedness and productivity of immigrants and second-generation workers who have not graduated from high school. Tailor instruction to key industries that are expected to maintain constant or growing employment — for instance agriculture, hospitality, and especially education and health care.
- Maintain the quality of the county's public schools, where some private funding may be necessary to offset state cuts, especially in the Napa Unified School District. Continue to address the needs of English Language Learners and other diverse groups of students, as the children of immigrants will become a majority of the student body in the near future. Identify and invest in programs that can close the significant achievement gap that exists between non-Latino children and Latino children. Expanding enrollment in prekindergarten programs for Latino children — who participate in preschool at significantly lower rates than their non-Latino counterparts — could be an example of such a program.
- Continue providing health insurance and other employment benefits to agricultural and other low-skilled workers. The relatively high rate of employer-provided coverage of immigrant workers in the county lowers public costs significantly. Supporting health coverage of children in the county through affordable public or private insurance programs also helps lower public health care costs.
- Increase the availability of citizenship programs so that eligible residents can participate more fully in the civic and economic life of the community. Napa County lags noticeably behind the rest of California in terms of the percentage of immigrants who have become naturalized citizens, suggesting there may be an opportunity to expand access to citizenship programs. Such programs can help immigrants integrate more fully into Napa County, and create more cohesion among native and foreign-born residents.
- Invest more in affordable housing, particularly in the Upvalley region, where housing is least available and most expensive. Developing more affordable housing will both lower housing hardship in immigrant families and cut down on commuting traffic.

I. Introduction

The purpose of this report, which was commissioned by the Napa Valley Community Foundation, is to describe the county's immigrant population, calculate immigrants' economic contributions, and discuss their impact on state and local government revenues and expenditures. The report focuses primarily on Latino immigrants, because the vast majority of the county's immigrants are from Latin America, principally Mexico. The report addresses several key questions:

- How has immigration affected demographic trends in Napa County? To what degree are Latino immigrants offsetting child and worker population declines as the non-Hispanic white population ages?
- Beyond farm work, what types of jobs do Napa County's immigrants hold? How are they faring in terms of hours of work and earnings?
- Where do immigrants working in Napa County live? How many commute from outside the county, and how many have difficulty affording housing within the county?
- What contributions do immigrants make to the Napa County economy?
- What is the difference between the state and local taxes immigrants pay and the government services they receive, most notably public education, health, social services, and public safety? How do fiscal costs compare to broader economic benefits?
- What policies and practices might accelerate the integration of immigrants and their children, and ensure their continued role as productive community members?

The Napa Valley has a long history of welcoming immigrants. Like other California agricultural regions, Napa has had large numbers of immigrants working in agriculture for decades. Mexican immigrants came to California in large numbers during the 1940s and 1950s through the Bracero Program, a temporary worker program started in 1942 to fill agricultural labor shortages during World War II. The program lasted more than two decades and admitted an estimated 4.5 million Mexican immigrants for temporary agricultural work.[1] During the Bracero period, Napa had a diverse agricultural economy including vineyards but also cattle ranches, dairy farms, and orchards.

In recent years, wine production has led the Napa County economy. The first commercial winery, operated by Charles Krug, himself an immigrant, opened in Napa Valley in 1861. Wineries were successful in the late 19th century, but the early 20th century brought drought, pestilence, and Prohibition.[2] Napa Valley's vineyards and wineries began to recover during the 1950s and 1960s, but the Valley's pre-eminence as a wine-producing region was not established until 1976, when two Napa Valley wines won a blind taste test in Paris. The rise of Napa's wine industry has been meteoric: in 1970 there were 50 wineries; today there are 800. Because of Napa Valley's climate and soil, local vineyards grow some of the best grapes in the world. The high degree of specialization in Napa Valley agriculture has not only created opportunities for immigrant employment, but also for skilled work and economic advancement.

Napa County's immigrant population is predominantly from Mexico. Mexican immigrants were initially mostly migrants who moved up and down the West Coast with the crop cycle, but the county's year-round immigrant population has grown rapidly in recent decades, as the wine industry and related businesses (bottling, hospitality) have provided more year-round jobs. According to community respondents, the immigrants in the vineyards and the hospitality industry, particularly in the Upvalley communities of Calistoga and St. Helena, are predominantly from the Mexican states of Michoacán and Zacatecas; many are from the same villages and families. Traditionally, many family members travel back and forth between

1 Kitty Calavita, *Inside the State: The Bracero Program, Immigration, and the I.N.S.* (New York: Routledge, 1992).
2 Napa Valley Vintners, "Napa Valley Wine Growing: History and Timeline," www.napavintners.com/about/ab_2_overview.aspx, accessed May 18, 2011.

Napa County and sister communities in Mexico. Many of the families that have sent agricultural workers to Napa County have farms in the Jerez Valley of Zacatecas, where they grow peaches. The 1,000 or more Napa County immigrants from this area, including many of the Latino community's leading professionals, are the descendants, relatives, and neighbors of temporary workers who came to work in the vineyards and wineries in the 1950s as Braceros.[3]

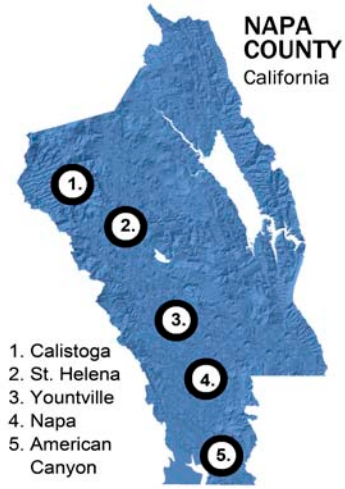
Wine production remains the leading industry in Napa, but the wine industry and proximity to the wealth of the Bay Area have created employment opportunities for immigrants in other sectors. Hospitality and tourism have grown rapidly, with tasting rooms, hotels, restaurants, and conference centers sprouting up over the past two to three decades. Manufacturing, including bottling of wine and spring water, has also been an important source of county employment. Before the recession, many immigrants worked in construction, building hotels, wineries, and new housing developments.

Housing development in the north part of the county, the Upvalley, has been severely limited by the 1968 Agricultural Preserve, which prohibits large-scale housing development outside incorporated areas. The Preserve has helped maintain the rural nature of the county, its relatively pristine environment, and the value of the land — all of which are essential to the wine and hospitality industries, as well as the overall quality of life in Napa Valley, according to many respondents. But because most towns and cities are small geographically, housing development has been limited to the City of Napa and American Canyon, the two largest cities at the southern end of the county. Most immigrants live in these two jurisdictions, with American Canyon becoming home to a second significant immigrant population: Filipinos (see Map 1).

Napa is a relatively wealthy California county. Among the state's 58 counties, Napa had the 12th highest median home value and the 11th highest median household income in 2010. The county's wealth, along with the premium quality of the wines and a relatively stable housing market, has insulated the area somewhat from the recent recession. Home values have held up better in Napa County than most other California counties, but have declined significantly since 2008, with the greatest declines in American Canyon. Nonetheless, Napa's housing remains some of the most expensive in the country.

The numbers of immigrants and their children have increased rapidly in the past two decades, but high housing costs and the recession have slowed the immigrant population's growth since 2000. The population of children of immigrants, however, has continued to grow despite economic changes.

Map 1. Incorporated Areas and Large Towns in Napa County, 2010



Source: US Census Bureau, American Fact Finder, http://factfinder2.census.gov/faces/nav/jsf/pages/index.xhtml. Map created using boundaries and features from 2010.

3 For more on the pioneer immigrants and their transnational families in Napa County and the sister community of Los Haros, Zacatecas, see Sandra Nichols, "Saints, Peaches and Wine: Mexican Migrants and the Transformation of Los Haro, Zacatecas and Napa California," PhD dissertation, (Berkeley, CA: University of California, 2002).

II. Methods

The findings in this report are based primarily on analysis of data from the US Census Bureau: the 1990 and 2000 Census of Population and Housing, as well as five years of the American Community Survey (ACS) — 2005 through 2009. The 2010 ACS provides the most recent data on the size of the foreign-born population but at the time this was written, data were not yet available on the *characteristics* of the foreign born (such as country of origin) at the level of Napa County. As a result, this report is based primarily on earlier years of the ACS, combining more than one year of data because the ACS has small annual samples.[4] We pool 2005 and 2006 ACS data to analyze the peak of the economic boom, and we pool 2008 and 2009 data to assess the recession's initial impact. For more detailed analyses, we combine five years (2005 through 2009), even though this approach blends expansionary and recessionary periods. Unless otherwise stated in the report, all results come from Migration Policy Institute (MPI) analysis of decennial Census or ACS data.

We use two methods to develop upper- and lower-bound estimates of the gross domestic product (GDP) of Napa County attributable to the immigrant workforce. Our upper-bound estimate is based on an aggregate or "topdown" approach, which separates the dollar value of GDP into the proportion attributable to labor and the proportion attributable to capital. We then further separate the value of the labor contribution of Napa GDP into the immigrant and native labor components. The second method we employ to estimate the Napa County GDP contribution of immigrant workers uses disaggregate data and a "bottom-up" approach. It focuses on the four central wine-related industries in the county: vineyards, wineries, accommodations, and food services.

To model the lower-bound estimate, we use Impacts for Planning (IMPLAN), a software package that allows users to model scenarios based on changes in employment, employee compensation, business owners' income, and sales in different sectors of the economy. The software also allows users to model how changes in household income affect the overall economy. Using 2009 IMPLAN data, we modeled the impact of a decline in immigrant employment in the four major sectors associated with Napa County's wine industry: crop production (mostly vineyards), beverage manufacturing (mostly wineries), accommodations, and restaurants and other food services. Removing immigrants from the labor pool reduced output in these four industries and indirectly affected output of other industries in the county. Removing immigrants' compensation from work in these industries lowered economic activity throughout the county, as the overall amount of consumer spending was reduced.

A second central task is to estimate the fiscal impacts of immigrants on the county. To do this, we estimate state and local revenues (income, sales, and property taxes) paid by immigrants and major public expenditures on immigrant families (K-12 education, health, public assistance, corrections, and general government at the local level). We model the share of taxes paid by immigrants versus natives using ACS household-level income data, and then we adjust the total amount of taxes paid using California and Napa County government data on income, sales, and property taxes collected. For public education, public health, public assistance, corrections, and general government costs, we rely on data provided by state and county government agencies, as well as published financial reports from the various jurisdictions in Napa County. The report's appendix describes our methodology for computing immigrants' economic impact, tax contributions, and fiscal costs.

A broad group of Napa County community respondents helped us interpret our demographic data and gather information for the fiscal impact analysis. We contacted approximately 40 government officials, health and social service providers, major employers, and other key informants. They included respondents from the wine industry, directors of community-based organizations, and leadership and staff at public school districts, the county education office, the county department of corrections, and the county department of health and human services.

4 The 2010 Census provides basic information about the size of the total and Latino populations in Napa County, but does not identify immigrants separately from the US-born population.

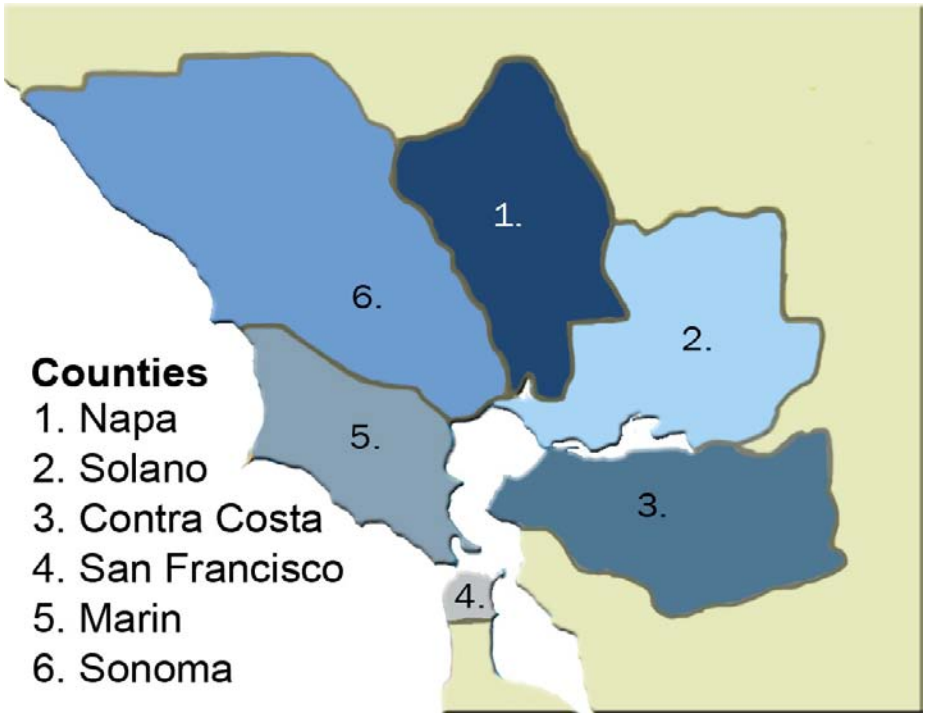
III. Findings

This report begins with a description of population trends among Napa County's immigrant and Latino populations, including the Latino child and young adult populations. A second set of findings focuses on immigrants' socio-economic well-being including their income, poverty, health insurance coverage, homeownership, and housing conditions. Third, we discuss immigrants' employment patterns, along with the shares they represent of various economic sectors. Fourth, we estimate immigrant workers' contributions to the county's overall economic output and to the wine industry. Finally, we assess immigrants' fiscal impacts by comparing their tax contributions (income, sales, and property) with their costs (public K-12 education, public health, public assistance, corrections, and general government at the local level).

A. Napa County's Immigrants in Regional Context

Napa is the smallest county by population in the North Bay, which is dominated by the much larger counties of Marin and Sonoma (see Map 2). In 2005-09, 21 percent of Napa County's population was foreign-born, similar to most of the other North Bay Area counties. San Francisco had a substantially larger foreign-born share: 35 percent (see Table 1).

Map 2. Napa County and Select Neighboring Counties, 2010



Source: US Census Bureau, American Fact Finder, http://factfinder2.census.gov/faces/nav/jsf/pages/index.xhtml. Map created using boundaries and features from 2010.

Napa County has the highest share of Latin American immigrants in the region (71 percent), followed by Sonoma (66 percent) — another county where agriculture is a leading sector. Other Bay Area counties have more diverse immigrant populations, with less than half coming from Latin American origins.

Table 1. Foreign-Born Populations, Napa and Selected Bay Area Counties, 2005-09

County	Napa	Sonoma	Solano	Marin	Contra Costa	San Francisco
Total Population	132,000	464,000	406,000	248,000	1,016,000	797,000
Foreign Born	28,000	76,000	79,000	45,000	235,000	275,000
Born in Latin America	20,000	50,000	34,000	19,000	101,000	55,000
Born in Asia	5,000	13,000	37,000	11,000	97,000	171,000
Born Elsewhere	3,000	13,000	8,000	15,000	37,000	49,000
Native Born	104,000	388,000	327,000	203,000	781,000	522,000
Foreign-Born Share of Total Population	21%	16%	19%	18%	23%	35%
Latin American Share of Foreign-Born Population	71%	66%	43%	42%	43%	20%
Asian Share of Foreign-Born Population	18%	17%	47%	24%	41%	62%

Source: American Factfinder, American Community Survey (ACS) five-year data set 2005-09, Tables B-05002 and B-05006.

B. Immigration and Demographic Change in Napa County

Most of the initial immigrants to Napa County were migrant workers who followed the crop cycle up and down the West Coast. But the past two decades have seen a shift toward more permanent residency, leading to substantial growth in the size of Napa County's year-round Latino population.

1. Latinos Account for Most of the County's Population Growth since 1990

Latinos have accounted for most of Napa County's population growth over the past two decades. The number of Latinos residing in the county nearly tripled from 15,000 to 44,000 between 1990 and 2010, while the number of non-Latinos (who are predominantly white) fell slightly from 95,000 to 93,000 (see Table 2). The Latino population doubled in the 1990s and grew by about 50 percent between 2000 and 2010. The county's Asian and Pacific Islander population is relatively small — 9,700 in 2010, but it grew quickly (by 6,000) over the 20-year period (not shown in Table 2).[5] As a result of these rapid changes, the Latino share of the total population more than doubled from 13 percent in 1990 to 32 percent in 2010.

5 For most of the report, we do not disaggregate the Asian population because it is small and estimates of its size and characteristics are unreliable given small samples in the American Community Survey (ACS) data.

Table 2. Growth in Napa County's Latino and Immigrant Populations, 1990 to 2010

Year Data Source	1990 Census	2000 Census	2005-06 ACS	2008-09 ACS	2010 ACS	Change 1990-2000	Change 2000-2010
Total Population	109,700	124,600	130,500	134,100	136,900	14%	10%
Foreign Born	12,700	23,500	28,300	28,100	31,800	85%	35%
Native Born	97,000	101,100	102,200	106,000	105,100	4%	4%
Latinos	14,700	29,800	36,700	39,700	44,300	103%	49%
Foreign Born	7,400	16,500	19,400	17,000	20,000	123%	21%
Native Born	8,300	13,200	17,300	22,800	24,300	59%	84%
Non-Latinos	95,000	94,800	93,800	94,400	92,600	0%	-2%
Foreign Born	5,300	7,000	8,900	11,100	11,800	32%	69%
Native Born	88,700	87,900	84,900	83,200	80,800	-1%	-8%
Foreign-Born Share of Total Population	12%	19%	22%	21%	23%	7%	4%
Latino Share of Total Population	13%	24%	28%	30%	32%	11%	8%
Foreign-Born Share of Latino Population	50%	55%	53%	43%	45%	5%	-10%

* 2010 Census estimates of the immigrant population are based on the foreign-born share of the total and Latino populations according to the 2008-09 ACS. The 2010 Census does not provide data on nativity.
Source: MPI analysis of US Census of Population Housing and American Community Survey (ACS) data, various years.

As the Latino population becomes more settled and better integrated, the US-born share of the population is increasing. In 2000, there were slightly more Latino immigrants than US-born Latinos in the county, but by 2009 there were more US-born Latinos than immigrants (24,000 versus 20,000). During the 1990s, the number of foreign-born Latinos rose by 123 percent while the number of US-born Latinos grew by 59 percent. But from 2000 to 2010, the number of Latino immigrants grew by only 21 percent, while the US-born Latino population rose by 84 percent.

Latino immigrant population growth has slowed nationally since the recession began, with the overall immigrant population growing slowly from 38 million in 2007 to 40 million in 2010 after several years of near-record growth earlier in the decade. Most estimates indicate that Latino immigrant populations — particularly the unauthorized and those of Mexican origin — have grown even more slowly since 2007. The Pew Hispanic Center has estimated that the unauthorized population peaked at 12 million in 2007, dropping to the 2005 level of 11 million in 2010.[6] Moreover, Mexican census data show declining migration to the United States, with departures falling from 14.6 people on average (per 1,000 Mexicans) in spring 2006 to 4.6 per 1,000 in spring 2010.[7]

There are four basic explanations for the slowing of immigrant population growth in Napa County. The first is the recession's impact. Across the country, sectors that employ large numbers of Latino immigrants have been hard hit by the recession, especially construction, manufacturing, and hospitality. Second, the number of immigrants would likely be higher without expanded enforcement of immigration laws. Since 2006, US-Mexico border enforcement has tightened significantly. More recently, the number of deportations of immigrants by federal authorities has risen substantially, aided in part by programs

6 Jeffrey S. Passel and D'Vera Cohn, *Unauthorized Immigrant Population: National and State Trends, 2010* (Washington, DC: Pew Hispanic Center, 2011), http://pewhispanic.org/reports/report.php?ReportID=133.

7 Instituto Nacional de Estadística y Geografía (INEGI), "Tasas de Migración Internacional al Segundo Trimestre de 2010 Obtenidas a Partir de la ENOE" (Aguascalientes: INEGI, October 2010), www.inegi.org.mx/inegi/contenidos/espanol/prensa/Boletines/Boletin/Comunicados/Especiales/2010/octubre/comunica13.pdf.

that facilitate the removal of immigrants arrested by state and local police officers.[8] A third explanation is the county's limited housing availability and high prices, which have driven immigrants to commute into Napa County from surrounding jurisdictions. Community respondents reported that all three factors have reduced growth in the county's immigrant population, with housing being perhaps the most important.

The fourth explanation lies in economic and demographic trends in Latin America. Two major origin countries for US immigrants — Mexico and El Salvador — are both undergoing rapid demographic transitions, with birthrates falling from six children per woman in the 1960s to just over two (near what demographers refer to as "replacement level") during the first decade of the millennium. As a result, the numbers of children in Mexico and El Salvador have started to fall slightly, while the number of young adults is leveling off. Declining young populations in these two countries, alongside major improvements in educational attainment and mild improvements in both countries' labor markets, are reducing emigration pressures.[9]

2. Latino Child Population Grows while Non-Latino Population Falls

In contrast with the foreign-born population, the population of US-born Latinos continued to rise rapidly in Napa County and California during the recession. The number of US-born Latinos in the county grew more quickly from 2000 to 2010 (91 percent) than during the 1990s (59 percent). In fact, this population's total growth was higher after 2005 than before.

This rapid growth owes to the rising number of children of Latino immigrants. Between 1990 and 2009, the number of Latino children more than doubled from 5,000 to 12,500 (see Table 3). During this period, the number of non-Latino children fell substantially, with the decline accelerating after 2000.

8 Within the past year, the Secure Communities program has been deployed across the state of California. The Napa County jail, like other jails across the state, now shares fingerprints of those who are booked into jail with federal immigration authorities. During the first 15 months of the program (August 2010 through November 2011), over 1,600 mostly unauthorized immigrants were identified by federal immigration authorities after being booked into the Napa County jail, and 239 were deported. While this is a small number in absolute terms, it is a significant share of unauthorized immigrants in the county and, as elsewhere in the United States, signals an increasingly unwelcome environment for these immigrants. It is also worth noting that only 21 percent of those deported had been convicted of felony offenses (identified as Level 1 or 2 in the data), meaning that almost 80 percent of those deported had been convicted of misdemeanor offenses or no crime at all. US Immigration and Customs Enforcement (ICE), *Secure Communities: IDENT/IAFIS Interoperability: Monthly Statistics through November 30, 2011* (Washington, DC: ICE, 2012), www.ice.gov/doclib/foia/sc-stats/nationwide_interoperability_stats-fy2012-to-date.pdf.

9 Aaron Terrazas, Demetrios G. Papademetriou, and Marc R. Rosenblum, *Evolving Demographic and Human-Capital Trends in Mexico and Central America and Their Implications for Regional Migration* (Washington, DC: Migration Policy Institute, 2011), www.migrationpolicy.org/pubs/RMSG-human-capital.pdf.

Table 3. Children of Immigrants and Latino Children in Napa County, 1990, 2000, 2005-06, 2008-09

Year Data Source	1990 Census	2000 Census	2005-06 ACS	2008-09 ACS	Change 1990-2000	Change 2000 to 2008-09
All Children	23,800	26,500	27,500	27,400	11%	3%
At Least One Immigrant Parent	5,000	8,900	11,400	13,100	78%	47%
Native-Born Parents Only	18,800	17,600	16,100	14,300	-6%	-19%
Latino Children	5,000	8,900	11,600	12,500	78%	40%
At Least One Immigrant Parent	3,300	6,800	8,800	9,100	106%	34%
Native-Born Parents Only	1,700	2,100	2,800	3,400	24%	62%
Non-Latino Children	18,800	17,600	15,900	14,900	-6%	-15%
At Least One Immigrant Parent	1,700	2,100	2,600	4,000	24%	90%
Native-Born Parents Only	17,100	15,500	13,300	10,900	-9%	-30%
Share All Children with Immigrant Parents	21%	34%	41%	48%	13%	14%
Latino Share of All Children	21%	34%	42%	46%	13%	12%
Share Latino Children with Immigrant Parents	66%	76%	76%	73%	10%	-4%

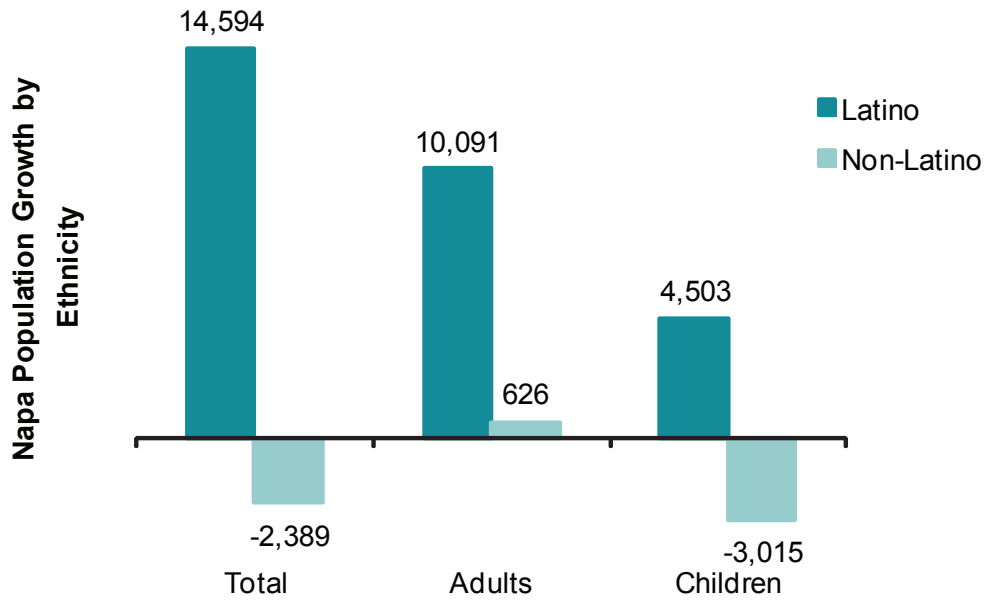
Source: MPI analysis of US Census and ACS data, various years.

Napa County's child population has grown primarily but not exclusively because of immigration. While 73 percent of Latino children have at least one immigrant parent, the number of Latino children with US-born parents has also increased. There has also been a substantial increase in the number of non-Latino children with immigrant parents, mostly from the Philippines and other Asian countries.

The rapid rise in the number and share of Latino children can be seen by comparing 2000 with 2010 Census data. Over the decade, the absolute number of Latino children grew by 4,500 while the non-Latino child population (mostly white children) fell by 3,000 (see Figure 1). This pattern of an increasing number of Latino children alongside a shrink ing number of white children also holds nationally: the number of white children fell in 46 states, 86 out of the largest 100 metropolitan areas, and 80 percent of all US counties during the decade.[10] In California, the number of Latino children rose 16 percent while the number of white children fell 15 percent.

10 William H. Frey, "Census Shows Challenge of America's Children," Brookings Institution *UpFront Blog*, April 8, 2011, www.brookings.edu/opinions/2011/0408_census_youth_frey.aspx.

Figure 1. Napa County Population Growth by Latino Ethnicity, Adults and Children, 2000-10



Source: US Census Bureau, "Table P-2: Hispanic or Latino, and Not Hispanic or Latino by Race; Table P-4: Hispanic or Latino, and Not Hispanic or Latino by Race for the Population 18 Years and Over," *2010 Census Redistricting Data (Public Law 94-171) Summary File* (Washington DC: US Census Bureau), http://factfinder2.census.gov/faces/nav/jsf/pages/index.xhtml, accessed May 12, 2011; US Census Bureau, "Table P-4: Hispanic or Latino, and Not Hispanic or Latino by Race; Table P-6: Hispanic or Latino, and Not Hispanic or Latino by Race for the Population 18 Years and Over," *Census 2000 Summary File 1 (SF 1) 100-Percent Data* (Washington DC: US Census Bureau), http://factfinder.census.gov/home/saff/main.html?_lang=en, accessed May 12, 2011.

3. Latino Children Grow to Largest Ethnic Group in Public Schools

Because of these rapid changes, nearly half of all children in Napa County are children of immigrants (48 percent) and/or Latino (46 percent).[11] Latinos are now the largest demographic group in Napa County's schools. Between the 1989-99 and 2008-09 school years, the number of white students in county public schools fell 60 percent, while the number of Latino students rose by the same proportion (also 60 percent).[12] Filipinos were the fastest-growing group during this period, but their numbers are much smaller — 900 versus 9,300 Latinos and 7,300 white students.

According to data from the California Department of Education (CDE), 46 percent of the county's students were Latino in 2008-09 (see Table 4). Calistoga had the highest share of Latino students (74 percent), who comprised over 40 percent of students in all districts except the small elementary district of Howell Mountain. The substantial Filipino and other Asian student populations were almost entirely in Napa Unified School District, which serves American Canyon, where many live.

11 Napa County is just behind the trend in California as a whole. In 2009, 51 percent of children statewide had immigrant parents and 48 percent were Latino.

12 In absolute numbers, the white student population fell by 4,900 while the Latino population rose by 3,500. See Napa County Office of Education (NCOE), *Napa County Education Review* (Napa, CA: NCOE, Winter 2009).

Table 4. Race and Ethnicity of Children in Napa County School Districts, 2008-09

	Napa County	Napa Valley	St. Helena	Calistoga	Howell Mountain	Pope Valley	NCOE*
Total Student Population	20,370	17,771	1,351	868	109	65	206
Latino	9,318	7,855	612	646	41	39	125
White, Non-Latino	7,346	6,336	662	200	58	26	64
Filipino	902	889	3	6	0	0	4
Other Asian	362	344	14	3	0	0	1
Other	2,804	2,347	60	13	10	0	12
Latino Share	46%	44%	45%	74%	38%	60%	61%
Filipino Share	4%	5%	0%	1%	0%	0%	2%

* Napa County Office of Education (NCOE) operates an alternative high school.
Source: California Department of Education (CDE), "Enrollment by Ethnicity for 2008-09: County Enrollment by Ethnicity (with district data), 2008-09, County 28-Napa," *Dataquest* (Sacramento: CDE, Educational Demographics Unit), http://dq.cde.ca.gov/dataquest/, accessed May 9, 2011.

Other CDE data show that English Language Learners (ELLs) represent almost a quarter of schoolchildren in the county, and another quarter are former ELLs who have been redesignated as bilingual (i.e., have become proficient in English but maintain proficiency in their primary language — usually Spanish). In 2008-09, there were 4,693 ELLs in schools across the county (out of a total of 20,370 students), up slightly from 4,166 in 1998-99.[13] The number of redesignated bilingual students, those who entered the district as ELL but later became proficient in English, rose dramatically from 1,173 to 4,504. Thus the number of redesignated bilingual students is rising much more rapidly than the number of ELL students. These data may indicate that most ELL students are learning English and being reclassified as bilingual; respondents reported that the county has recently implemented an initiative to reclassify ELL students by sixth grade and that some of the districts have changed their mode of instruction for ELLs . More than two-thirds (68 percent) of the county's ELL children were US born, entering the school system in kindergarten or possibly prekindergarten.[14] Prekindergarten enrollment rates for Latino children lag behind those for non-Hispanic white children, however, with 41 percent of Latino children enrolled compared with 70 percent of white children.[15]

The burgeoning Latino student enrollment in the public schools represents both an important short-term cost and long-run investment for the county. Teaching large numbers of ELL and other children of immigrants may be challenging and expensive and, as described in the final set of findings in this report, public education represents the second largest fiscal cost associated with immigration — in Napa as elsewhere in the country . But the growth of the Latino child population is offsetting declines in the white population, meaning that the rising Latino shares of the county's working population will likely prevent Napa's workforce from shrinking in the future. Thus public education represents an important investment that is needed to ensure the productivity of Napa County's future workforce.

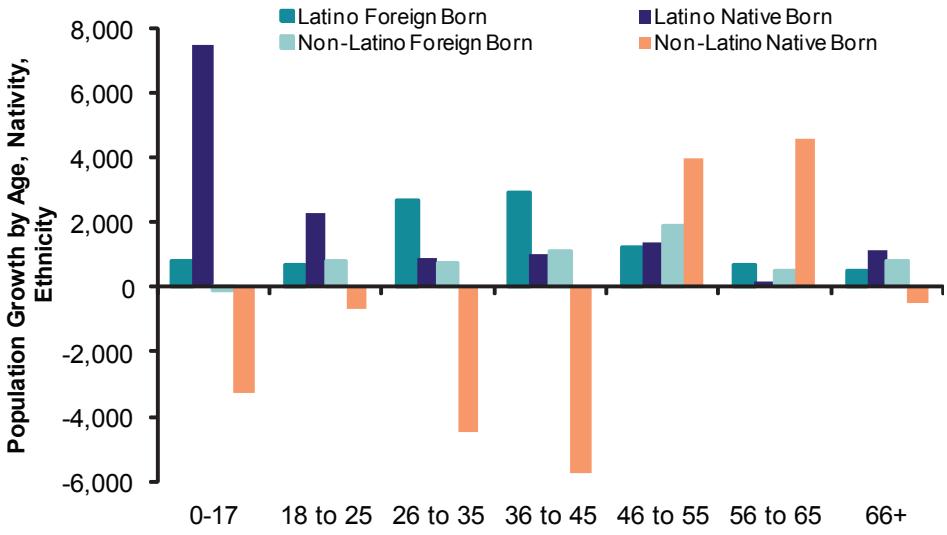
4. Napa County's Non-Latino Population Ages

The education and productivity of the county's Latino population will become increasingly important as the white population ages. Like most of the country, Napa County's white population is aging and a large share is nearing retirement age; according to respondents this older population includes some natives who have moved to Napa to retire. The number of native-born non-Latinos of prime-working age (26 to 45) fell by over 10,000 during the past 20 years, while the number of Latinos, both immigrants and na-

13 Ibid.
14 Six percent of the county's English Language Learner (ELL) students are US-born with US-born parents, while 62 percent are US-born with immigrant parents. This analysis is based on 2008-09 ACS data for the total population ages 5 to 17 enrolled in school and who reported speaking English less than very well. The native-born share of ELL children was comparable across the young child (ages 5 to 10) and adolescent (ages 11-17) populations.
15 NCOE, *Napa County Education Review.*

tives, rose (see Figure 2). At the same time there has been a large increase in the number of adults in the older worker years. From 1990 to 2009, the total number of people ages 46 to 65 grew by about 8,000, representing a steep increase in the number of workers nearing retirement age.

Figure 2. Napa County Population Growth by Age, Nativity, and Latino Ethnicity, 1990 to 2008-09



Source: MPI analysis of 1990 Census and 2008-09 ACS.

C. *Origins and Legal Status of Napa County's Immigrants*

Napa County's immigrant population is predominantly from Mexico and other Latin American countries, in large part because of the historical ties between Napa's agricultural industry and Mexico. However, Napa County's immigrant population has recently become more diverse, with a rapid increase in the number of Filipino and other Asian immigrants. The relatively large share of Mexican immigrants translates into a slightly higher share of unauthorized immigrants in the county than in the state or nation.

1. Almost Two-Thirds of Napa County Immigrants Are Mexican but Filipinos Are the Fastest-Growing Group

Mexican immigrants represented 63 percent of all immigrants in Napa County in 2008-09, and immigrants from other Latin American countries comprised another 4 percent (see Table 4). Mexican migration to the Napa Valley dates back to the Bracero period of the 1940s, 1950s, and early 1960s. The Mexican community grew especially rapidly during the 1990s, but since 2000 has grown more slowly. The number of Mexican immigrants in the county grew by 158 percent during the 1990s but only 10 percent between 2000 and 2008-09. The county's Mexican immigrants are evenly distributed between recent migrants and longer-term settlers, with about one-third entering the United States before 1990, another third entering during the 1990s, and a third entering after 2000.

Table 5. Origins of Napa County's Immigrant Population, 1990 to 2008-09

Year Data Source	1990 Census	2000 Census	2008-09 ACS	Change 1990 to 2000	Change 2000 to 2008-09
Total Foreign-Born Population	12,700	23,500	28,100	85%	20%
Born in Latin America	6,900	16,700	18,900	142%	13%
Born in Mexico	6,200	16,000	17,600	158%	10%
Born in Asia and Pacific Islands	1,900	3,100	5,900	63%	90%
Born in Philippines	700	1,400	3,100	100%	121%
Born Elsewhere	3,900	3,700	3,400	-5%	-8%
Share Born in Latin America	54%	71%	67%	17%	-4%
Share Born in Mexico	49%	68%	63%	19%	-5%
Share Born in Asia and Pacific Islands	15%	13%	21%	-2%	8%
Share Born in Philippines	6%	6%	11%	0%	5%

Source: MPI analysis of US Census of Population Housing and ACS data, various years.

The county's small foreign-born Asian population, half of whom are migrants from the Philippines, grew rapidly in both of the past two decades. The number of Filipinos doubled during the 1990s and again after 2000, comprising 11 percent of the county's immigrants in 2008-09. More than half of Filipinos and other Asians arrived in the United States before 1990, suggesting that they lived elsewhere in the United States before moving to Napa County. According to community respondents, rapid housing growth in the southern part of the county, particularly American Canyon, drew Asian immigrants during the housing boom. Many Asian immigrants who live in American Canyon commute to workplaces in other parts of the Bay Area or the Sacramento Valley region.

2. One-Third of Napa County's Immigrants Are Unauthorized

Napa County has a slightly higher share of unauthorized immigrants than California or the United States. We estimate that one-third of Napa County's immigrants were unauthorized in 2007 (see Figure 3), higher than the share for immigrants nationally (30 percent) and in California (26 percent).[16] Thus we estimate that there were between 10,000 and 11,000 unauthorized immigrants (with a midpoint of 10,500). Our estimate builds in a conventional assumption that the ACS data undercounted the unauthorized population by 15 percent. Our estimates suggest that 87 percent of unauthorized immigrants in the county are of Mexican origin. The Pew Hispanic Center has estimated that the unauthorized population nationwide fell slightly from 2007 to 2010, so the current size of the county's unauthorized population could be lower.[17]

16 We estimate Napa County's unauthorized population using three steps. First we generate statewide shares of the unauthorized population by major country and region of origin using 2006-08 Census Bureau Current Population Survey (CPS) data augmented with legal status assignments, provided by the Pew Hispanic Center. Second we apply these statewide estimates to the shares of major origin countries and regions in Napa County using ACS data. For instance, the unauthorized share of Mexican immigrants in California was 41 percent according to CPS data. We multiply 41 percent by the number of Mexican immigrants in Napa County to generate our estimate of the size of the Mexican unauthorized population in the county (8,000). Third, the total number of unauthorized immigrants is multiplied by 1.15 to account for the ACS undercount of immigrants. For national and state estimates, see Passel and Cohn, *Unauthorized Immigrant Population: National and State Trends, 2010.*

17 Ibid.

The Public Policy Institute of California (PPIC) has published an alternative set of estimates of the unauthorized population in Napa County. PPIC estimates that the number of unauthorized falls within a range of 12,000 to 16,000.[18]

Unauthorized immigrants in Napa County are vulnerable to immigration enforcement and deportation, especially with the expanded statewide implementation of Secure Communities in 2010. They are also subject to potential exploitation in the job market due to lack of legal protections, and are ineligible for most forms of federal and state public assistance — including public health insurance coverage — although their US-born children are eligible for assistance.

Roughly the same shares of immigrants in Napa County and California are legal permanent residents, commonly known as "green card" holders. Legal permanent residence is usually obtained through marriage or other family ties to citizens or other permanent residents, but can also be obtained through employment, humanitarian, and other special programs. The vast majority of legal Latino immigrants come through family reunification channels.

Napa County's immigrants are less likely to be citizens than immigrants in the rest of California. In 2006-08, 30 percent of Napa's immigrants had naturalized versus 37 percent for California and 36 percent nationwide.[19] Immigrants are generally eligible to naturalize after five years of legal permanent residency in the United States, or three years if a green card was obtained through marriage to a US citizen.

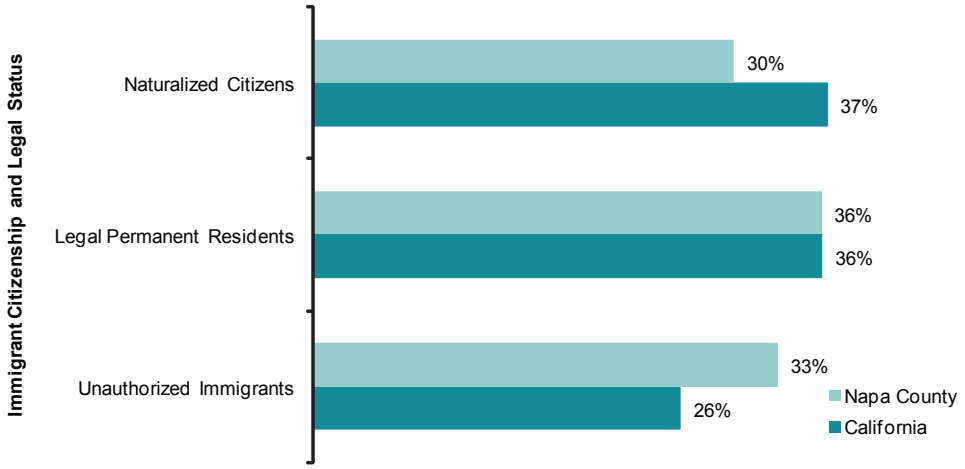
Only 30 percent of Napa County's immigrants are naturalized citizens who are, therefore, eligible to vote. But US-born Latinos, a group that has grown quickly in the past decade, are all eligible to vote, and the voting-age Latino population is growing quickly as the US-born children of immigrants become adults.

The relatively low share of naturalized citizens among the county's foreign-born population suggests there may be an opportunity to expand access to citizenship programs. Such programs can help immigrants integrate more fully into Napa County, and create more cohesion among native and foreign-born residents.

18 The Public Policy Institute of California (PPIC) derived its estimate for Napa County from a statewide estimate based on analysis of ACS data by former US Immigration and Naturalization Service (INS) Statistics Division Chief Robert Warren. The PPIC statewide estimate of 2.88 million unauthorized in 2008 is 7 percent higher than our estimate of 2.69 million, which is based on analysis of the CPS augmented with legal status assignments by Pew Hispanic Center. PPIC's estimate of 12,000 unauthorized in Napa County is based on the county's share of all noncitizens in California that immigrated after 2000, multiplied by 2.88 million. The PPIC estimate of 16,000 is based on the share of all Individual Taxpayer Identification Number (ITIN) filers in California who resided in Napa County, multiplied by 2.88 million. According to Internal Revenue Service (IRS) data, there were 929,000 ITIN filers in California in 2008, or 32 percent of the estimated statewide unauthorized population of 2.88 million. Potential reasons for the discrepancy in estimates between our report and PPIC's include differential undercounts of immigrants in the ACS versus CPS data; differences in the origins and other characteristics of unauthorized immigrants between Napa County and California overall; and differences in the share of unauthorized immigrants who file taxes using ITINs in Napa versus California as a whole. See Laura E. Hill and Hans P. Johnson, *Unauthorized Immigrants in California: Estimates for Counties* (San Francisco: Public Policy Institute of California, 2011), www.ppic.org/main/publication.asp?i=986.

19 The naturalized shares of immigrants are taken from 2006-08 ACS data, although they are adjusted downward by about 1 percentage point because unauthorized and legal permanent resident immigrants are undercounted in the survey.

Figure 3. Citizenship and Legal Status of Napa County and California Immigrants, 2006-08



Note: Excludes a small number (about 1-2 percent) of immigrants who are in the country legally but with a temporary status. This includes mostly students and workers with temporary work permits. There are few of either group in Napa County.
Source: MPI analysis of ACS 2006-08 and March CPS, Annual Social and Economic Supplement, augmented with assignments of legal status to noncitizen by Jeffrey S. Passel at Pew Hispanic Center, 2006-08 (pooled).

D. *Income, Poverty, and Health Insurance Coverage*

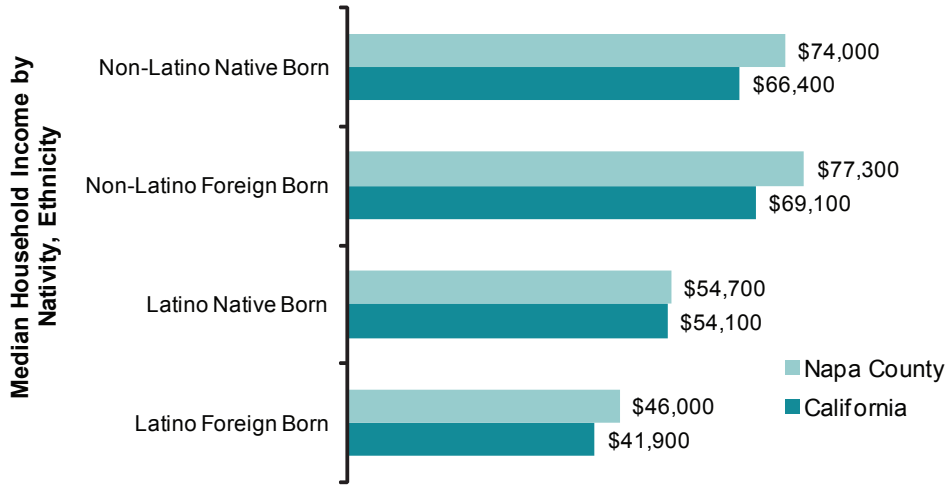
Both natives and immigrants — including Latino immigrants — have higher median incomes and lower poverty rates in Napa County than statewide. Moreover, a majority of Latino immigrants in the county have private health insurance coverage, and a much lower share are uninsured than in California. Still, Latino immigrants have lower incomes and a higher poverty rate than other county residents.

1. Latino Income Is Relatively Low but Higher in Napa County than California

The median household income for Napa County was $66,000 in 2008-09; incomes were far lower for Latino families than other families.[20] Median household income for non-Latino natives was $74,000, slightly higher than for non-Latino immigrants (see Figure 4). For native-born Latinos, the median was $55,000, and for Latino immigrants the median was $46,000. Median incomes were higher for all groups in Napa County than in California.

20 Households often underreport income in ACS and similar surveys, so the median household income for the county may be slightly higher in reality.

Figure 4. Napa County and California Median Household Income* by Nativity and Ethnicity, 2008-09



* Median income is calculated by pooling data from 2008 and 2009; income for households in 2008 was adjusted to income in 2009 using the Consumer Price Index for middle-sized metropolitan areas in the West Census Region (CPI—West B/C), www.bls.gov/cpi/cpifact8.htm.
Source: MPI analysis of ACS 2008-09.

2. Latino Poverty Rate Is High but Falling

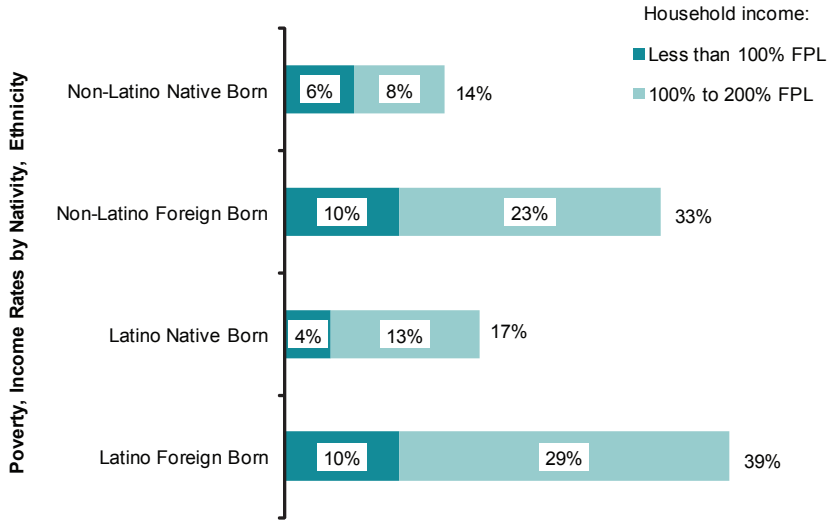
The low incomes of Latino and immigrant families are reflected in their relatively high poverty rates. In 2009, just 6 percent of non-Latino natives (who are mostly white) had incomes below the federal poverty level. Fourteen percent had incomes below twice the poverty level — near the cutoff for eligibility for most cash welfare, nutritional, health insurance, and other public assistance programs. The poverty rate for immigrants (whether Latino or non-Latino) was 10 percent, and 39 percent of Latino immigrants had family incomes below twice the poverty level, a cutoff we define as the "low-income" rate (see Figure 5). Once again, though, Napa County's immigrants are more prosperous than those across the state. In 2009, the poverty rate for Latino immigrants in Napa was half that for those in California (10 versus 21 percent).[21]

Poverty among Napa's Latino immigrants declined substantially as the county's prosperity increased over the past two decades. In 1990, the Latino immigrant poverty rate was 17 percent; it fell to 15 percent in 2000, and 10 percent in 2009.[22] The poverty rate for US-born Latinos also fell sharply from 12 to 4 percent during this period. While poverty fell for Latino immigrants statewide, it did not fall as steeply as in Napa County. Thus features of the local economy in the Napa Valley — particularly the increasingly skilled nature of work in the vineyards and wineries — may have increased Latino immigrants' productivity and wages over the past two decades.

21 Here we define the poverty level for households based on the nativity of the household head and/or spouse. Immigrant households are those in which the head or the head's spouse is an immigrant (or both); in native households, neither the immigrant nor the spouse is an immigrant. US-born children with immigrant parents are included in the "immigrant" category here.

22 Low-income rates for Latino immigrants were 67 percent and 61 percent in 1990 and 2000, respectively.

Figure 5. Napa County Individual Poverty and Income Rates by Nativity and Ethnicity of Household,* 2008-09



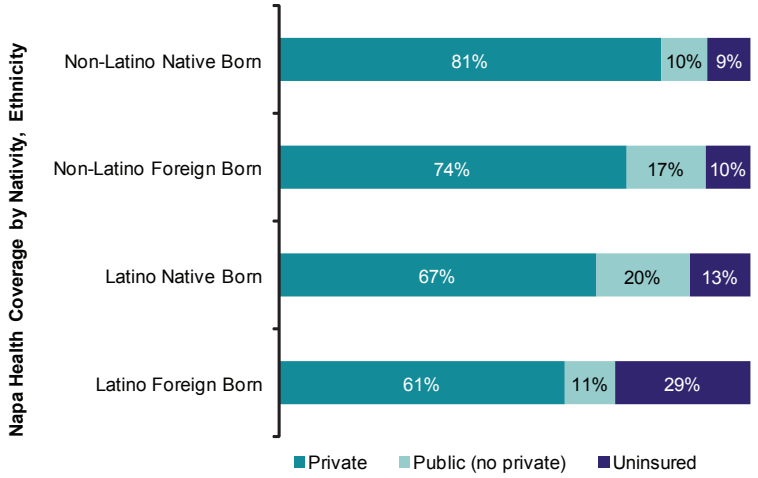
*Foreign-born households are those where the head or the spouse of the head (or both) is an immigrant. In native-born households neither the head nor the spouse is an immigrant.
**FPL is the federal poverty level.
Source: MPI analysis of ACS 2008-09.

3. Private Health Insurance Coverage Is Much Higher for Latinos in Napa County than California

Patterns of health insurance coverage follow those for poverty, as Latinos are more likely to be insured in Napa County than statewide. Employer-provided and other private coverage is much higher for Latinos (both immigrants and US-born) in the county than in California, and public coverage through Medi-Cal and Healthy Families is lower. In fact, the share of privately insured Latino immigrants in Napa was almost double the statewide share (61 versus 36 percent). But again Latino immigrants were more likely to be uninsured than other county residents.

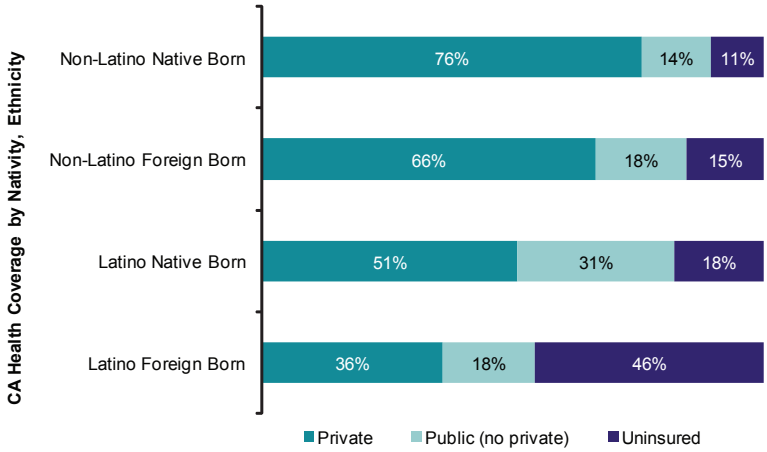
In 2008-09, 29 percent of Latino immigrants in Napa County were uninsured, compared with just 9 percent of non-Latino natives (see Figure 6). Private insurance coverage among Latino immigrants was lower than for other groups, but was still substantial at 61 percent. It is striking that a majority of Latino immigrants are covered by private insurance, considering that about a third are unauthorized and many work in agriculture and hospitality — industries where employers in other regions often do not offer health insurance. In California, only 36 percent of Latino immigrants had private coverage, and 46 percent were uninsured (see Figure 7).

Figure 6. Napa County Health Insurance Coverage for Individuals by Nativity and Ethnicity, 2008-09



Source: MPI analysis of ACS 2008-09.

Figure 7. California Health Insurance Coverage for Individuals by Nativity and Ethnicity, 2008-09



Source: MPI analysis of ACS 2008-09.

The relatively high private coverage of Latino immigrants in Napa County reduces costs of public insurance programs such as Medi-Cal, Healthy Families, and the County Medical Services Program, as well as emergency room and clinic costs for the uninsured. Unauthorized immigrants are barred from most forms of health care coverage under the *Affordable Care Act* (ACA) — the new federal health care reform. The impact of ACA may be muted because of the relatively high level of employer-provided insurance for immigrants in the county.[23]

23 Stephan Zuckerman, Timothy A. Waidmann, and Emily Lawton, "Undocumented Immigrants, Left Out of Health Reform, Likely to Continue to Grow as Share of the Uninsured," *Health Affairs* 30, no. 10 (2011): 1997-2004; Alison Siskin, *Treatment of Noncitizens Under the Patient Protection and Affordable Care Act* (Washington, DC: Congressional Research Service, 2011), www.ciab.com/WorkArea/DownloadAsset.aspx?id=2189.

E. Geographic Concentration, Housing Burdens, and Housing Hardship

Most immigrants in Napa County own their homes, but limited incomes and availability of affordable housing restrict the geographic areas in which immigrants, especially Latinos, can live. Housing constraints also mean that many households spend a very large share of their income on housing, a burden faced by households from all backgrounds. Latino immigrants, though, are far more likely than any other group to live in crowded housing.

Napa County's population is heavily concentrated in incorporated areas as a result of the Agricultural Preserve created in 1968. This land-zoning ordinance severely restricts housing construction in unincorporated, agricultural areas.[24] Several of our respondents stated that the preserve has been essential in retaining the rural nature of the county, supporting the wine industry, and attracting tourists to the region, and that it has been central to the county's economy and has helped maintain a balanced environment and high quality of life. But restrictions on housing in unincorporated areas have also increased the density of the cities and towns in Napa County and reduced housing options for lower-income workers, particularly immigrants. The result has been growing economic prosperity alongside perennial housing shortages and substantial housing hardship.

1. More than Half of Immigrants Own Their Homes

Many immigrants in Napa County, particularly those from Mexico, have longstanding ties to the community, as described earlier in this report. One of the indicators of their commitment to long-term settlement in the county is homeownership.

In 2005-09, a majority (55 percent) of immigrants owned their own homes, despite the high cost of housing in the county. Among the native-born, 67 percent owned their homes. Homeownership rates were 43 percent for Latino immigrants and 72 percent for non-Latino immigrants.[25] The homeownership rate for Latino immigrants statewide was 45 percent, only slightly higher than in Napa County. Non-Latino immigrants statewide were significantly less likely to own homes than those in the county (60 versus 72 percent) as were immigrants overall (53 versus 55 percent). When it comes to home ownership, immigrants in Napa County fare relatively well compared to those in other parts of California given the county's relatively expensive housing stock.

2. The City of Napa Has the Most Immigrants but the Highest Concentration Is in Calistoga

Most of Napa County's population lives in incorporated areas, and immigrants are more heavily represented in these areas than the overall population. Over half (56 percent) of the county's total population and 61 percent of all immigrants live in the City of Napa, the largest incorporated area (see Table 6). All other incorporated areas except Yountville also have significant immigrant populations. Twenty-one percent of the county's population is foreign-born, with slightly higher concentrations in American Canyon, St. Helena, and the City of Napa. Calistoga, in the upper Napa Valley, has the highest shares of immigrants (33 percent) and Latinos (46 percent). Despite its small size, Calistoga is home to many Latino and immigrant families because housing options elsewhere in the Upvalley are severely restricted.

24 Napa Valley Vintners, "Ag Land Preservation and Open Space," www.napavintners.com/about/ab_2_land.aspx, accessed March 2011.

25 Here we define immigrant households as those where either the household head or spouse (or both) are immigrants. Latino immigrant households are those where either the head, spouse, or both are Latino immigrants.

Table 6. Immigrant and Latino Populations in Napa County Incorporated Areas, 2005-09

	Napa County	Napa City	American Canyon	Calistoga	St. Helena	Yountville	Balance of County
Total Population	132,200	74,100	16,000	5,200	5,800	3,300	27,800
Foreign Born	28,400	17,200	4,300	1,700	1,400	200	3,600
Native Born	103,800	56,900	11,700	3,500	4,400	3,100	24,200
Latinos	38,600	26,100	4,400	2,400	1,500	400	3,800
Foreign Born	19,000	13,600	1,600	1,400	900	100	1,400
Native Born	19,600	12,500	2,800	1,000	600	300	2,400
Non-Latinos	93,600	48,000	11,600	2,800	4,300	2,900	24,000
Foreign Born	9,400	3,600	2,700	300	500	100	2,200
Native Born	84,200	44,400	8,900	2,500	3,800	2,800	21,800
Foreign-Born Share of Total Population	21%	23%	27%	33%	24%	6%	13%
Latino Share of Total Population	29%	35%	28%	46%	26%	12%	14%
Foreign-Born Share of Latino Population	49%	52%	36%	58%	60%	25%	37%

Source: MPI analysis of data from the US Census Bureau, American Factfinder, ACS, 2005-09 Five-Year Estimates, http://factfinder.census.gov/home/saff/main.html?_lang=en, accessed March 11, 2011.

Calistoga is located near many vineyards, wineries, and hotels, and the surrounding agricultural areas lack workforce housing, with the important exception of limited on-farm housing and three farmworker housing projects that are only available to single men. The farmworker centers — Calistoga, Mondavi, and River Ranch — have a total of 160 beds and are operated by the Napa County Housing Authority with additional private funding from the Napa Valley Vintners/Auction Napa Valley and assessments on local vineyards. While a 2007 assessment found the centers less crowded than other housing options, the lack of family accommodations discouraged some workers with spouses and children from living there.[26]

Because housing options are limited in the Upvalley, the larger jurisdictions of the City of Napa and American Canyon have absorbed most of the county's population growth since 2000, with both becoming increasingly diverse. In fact, American Canyon was the only county jurisdiction to see major housing development during the boom years of the early 2000s. As a result, its population doubled over the decade as those of Upvalley jurisdictions fell.[27] American Canyon's foreign-born population is also more diverse than the rest of the county, as almost two-thirds of immigrants are non-Latino, the reverse of the county-wide population. American Canyon has a large population of Filipinos and other Asian immigrants. Lying at the southern end of the county, American Canyon is located on major commuting routes into the Bay Area, and many of its residents commute out every day, in contrast to the Upvalley, which receives many commuters from surrounding counties. Out-commuters from American Canyon and other parts of Napa County have higher incomes than the in-commuters from surrounding counties, as shown in the later section of this report about commuting patterns.

26 Ron Strochlic, Don Villarejo, Sandra Nichols, Cathy Wirth, and Raoul Liévanos, *An Assessment of the Demand for Farm Worker Housing in Napa County* (Davis, CA: California Institute for Rural Studies, 2007), www.cirsinc.org/index.php/publications/section/7-survey-instruments.html; Napa County Housing Authority, "Napa County Housing Authority," www.countyofnapa.org/Pages/DepartmentContent.aspx?id=4294968700; James Noonan, "Farmworker centers running a deficit," *Napa Valley Register*, April 20, 2011, http://napavalleyregister.com/news/local/article_71935a1a-6bca-11e0-a41f-001cc4c002e0.html.

27 James Noonan, "U.S. Census: AMCan Doubled in Size, Upvalley Cities Lost Population," *Napa Valley Register*, March 8, 2011, http://napavalleyregister.com/news/local/article_1ead80f0-49c9-11e0-95c2-001cc4c002e0.html.

3. Lower Incomes Reduce Immigrants' Housing Options

Napa has consistently ranked among the least affordable metropolitan areas for housing in the country.[28] In 2007, on the eve of the recession, Napa was ranked the least affordable small metro area in the country, but housing prices have since fallen considerably.[29] In the City of Napa and Calistoga, for example, median home prices have fallen from over $400,000 to about $300,000 since the recession, but prices still remain out of reach for many Napa County families. In the second quarter of 2011, Napa was still ranked 200 out of 223 metro areas in terms of affordability. Of the 23 metropolitan areas that were less affordable, ten were in California, including the Bay Area's San Francisco and San Jose.[30] Thus problems with housing affordability remain widespread in California despite the recession and subsequent housing slump.

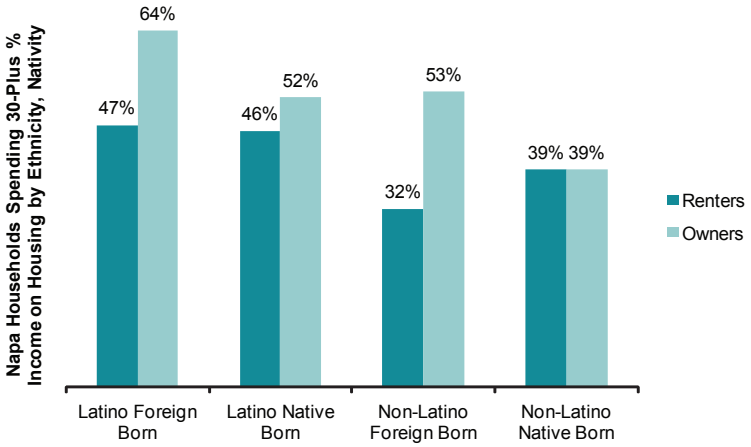
4. Almost Two-Thirds of Latino Immigrant Homeowners Have High Housing Costs Relative to their Incomes

Immigrant households spend a higher proportion of their incomes on housing than other households. Only 63 percent of Napa County households could afford a home at the median price in 2010; for Latino immigrants this share was lower.[31] The result is a high housing cost burden that leaves less disposable income for other necessities. High housing cost burdens also lead immigrant households to double or triple-up, resulting in overcrowding.

Immigrant households that own their homes have the highest housing cost burdens. In 2007, 64 percent of Latino immigrant homeowners paid 30 percent or more of their total household income on mortgage, property taxes, and other homeownership costs (see Figure 8) compared to 39 percent of non-Latino native-born homeowners. In fact, 35 percent of Latino immigrant homeowners spent more than half of their income on housing costs. One reason why Latino immigrants may have higher homeowner cost burdens than other county residents is that they purchased their homes more recently, when prices were higher and down payment requirements were lower, leaving them with high monthly payments relative to their household incomes. In addition, Proposition 13's limits on annual increases in assessed value benefit long-term homeowners more than recent buyers. Nationally, Latino homeowners borrow at higher interest rates than their non-Latino counterparts, and their loans represent higher shares of their incomes.[32]

28 The Napa metropolitan area is contiguous with Napa County.
29 National Association of Home Builders (NAHB), "NAHB/Wells Fargo Housing Opportunity Index: History of Least and Most Affordable Areas" (spreadsheet), www.nahb.org/reference_list.aspx?sectionID=135, accessed October 17, 2011.
30 NAHB, "NAHB/Wells Fargo Housing Opportunity Index: Complete Listing by Affordability Rank, 2nd Quarter 2011," (spreadsheet), www.nahb.org/reference_list.aspx?sectionID=135, accessed October 17, 2011.
31 NAHB, "NAHB/Wells Fargo Housing Opportunity Index: Complete Listing by Affordability Rank, 4th Quarter 2010," www.nahb.org/reference_list.aspx?sectionID=135, accessed October 17, 2011.
32 Rakesh Kochhar and Ana Gonzalez-Barrera, *Through Boom and Bust: Minorities, Immigrants and Homeownership* (Washington, DC: Pew Hispanic Center, 2009), http://pewhispanic.org/files/reports/109.pdf.

Figure 8. Share of Napa County Households Spending at Least 30 Percent of Income on Housing Costs, by Ethnicity and Nativity, 2005-09



Source: MPI analysis of ACS 2005-09.

Renters generally have lower housing cost burdens than homeowners, but this pattern is more distinct for immigrants than natives. While Latino immigrants are the most likely to pay more than 30 percent of their incomes on rent and utilities, their housing cost burden is similar to that for native-born Latino renters.

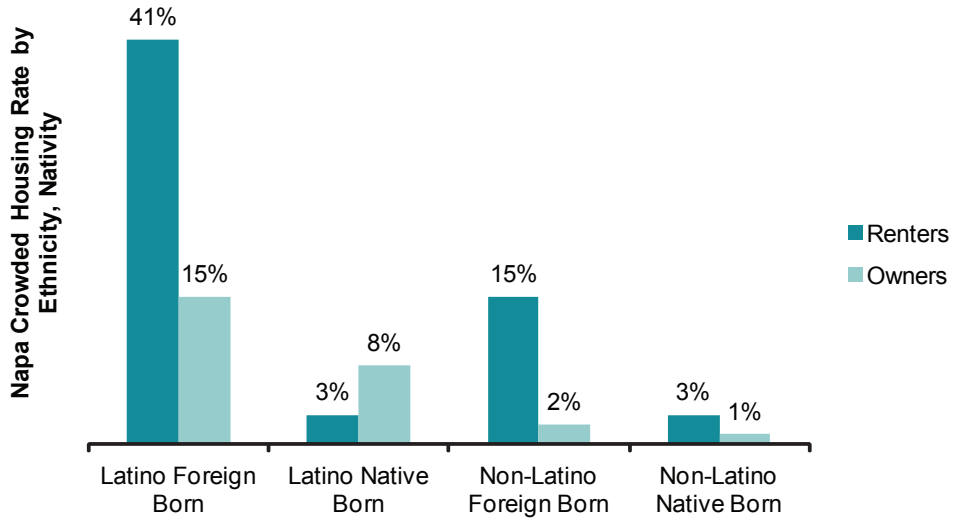
These findings suggest that Latino immigrant homeowners in Napa County are the most likely to have difficulty keeping up with housing costs. It may also mean that they are more likely to fall behind on their mortgage payments and lose their homes. But in the current economic climate, many households in Napa County, whether immigrant or native, struggle to pay their housing costs.

5. Two-Fifths of Latino Immigrant Renters Live in Crowded Housing

Renters are more likely than homeowners to live in crowded housing, and here the differences between Latino immigrants and others are striking. In 2007, 41 percent of Latino immigrant households that rented lived in crowded housing, defined as more than one person per room (see Figure 9). Fifteen percent of Latino immigrant renters lived in severely crowded housing, with more than 1.5 people per room. The overall crowding rate, which includes moderately and severely crowded housing, was more than ten times as high among Latino immigrants as Latino native-born renters (3 percent) and non-Latino native renters (also 3 percent). Community respondents reported that overcrowding was especially common in Calistoga's rental housing. Using the same definition of crowded and severely crowded housing as this report, a 2006 survey of farmworkers found a crowding rate of 66 percent and a severe crowding rate of 37 percent in their rental housing.[33]

33 Strochlic et al, *An Assessment of the Demand for Farm Worker Housing in Napa County.*

Figure 9. Crowding* Rates for Napa County Households by Ethnicity and Nativity, 2005-09



*Crowding is defined as more than one person per room.
Source: MPI analysis of ACS 2005-09.

Crowding rates were lower for households that owned homes. Nonetheless, Latino immigrant homeowners were much more likely to live in crowded housing than non-Latinos.

Crowding is associated with larger households among immigrants and Latinos. In 2007, the average Latino immigrant household included 4.3 people, compared with 3.1 people for non-Latino immigrant households, 2.4 for Latino native households, and 2.1 for non-Latino native households.

Crowded housing is linked to several risk factors for children's health, well-being, and development. When household members have different schedules, children may sleep less or have irregular sleep patterns, leading to poorer behavior and difficulty concentrating in school. Lack of privacy can create household stress and lead to less responsive parenting. Crowded housing has also been linked to a higher risk of infectious disease among children.[34]

F. Immigrants in the Workforce and Economy

Like the United States, Napa County has attracted large numbers of immigrants to work. Employment has increased alongside expansion of the county's vineyards and with growth in related industries such as manufacturing, hospitality, and construction. Napa County has experienced a boom in the past two decades, particularly during the 1990s, and a relatively strong economy since the recession began in 2008. The growth in the number of immigrants tracks this boom, with the most rapid increase during the 1990s. Rising incomes and falling poverty are attributable to general prosperity, as well as workers' movement into increasingly diverse and, in some cases, relatively specialized industries. Put simply, immigrants have played a central role in the county's expansion.

34 John N. Edwards, Theodore D. Fuller, Santhat Sermsri, and Sairudee Vorakitphokatorn, *Household Crowding and Its Consequences* (Boulder, CO: Westview Press, 1994); Gary W. Evans, Stephen J. Lepore, B.R. Shejwal, and M.N. Palsane, "Chronic Residential Crowding and Children's Well Being," *Child Development* 69, no. 6 (1998): 1514-23; Donald J. Hernandez and Evan Charney, eds., *From Generation to Generation: The Health and Well-Being of Children in Immigrant Families* (Washington, DC: National Academy Press, 1998), www.nap.edu/catalog.php?record_id=6164#toc; Gary W. Evans, Susan Saegert, and Rebecca Harris, "Residential Density and Psychological Health Among Children in Low-Income Families," *Environment and Behavior* 33, vol. 2 (2001): 165-80; Gary W. Evans, Henry N. Ricciuti, Steven Hope, Ingrid Schoon, Robert H. Bradley, Robert F. Corwyn, and Cindy Hazan, "Crowding and Cognitive Development: The Mediating Role of Maternal Responsiveness Among 36-Month-Old Children," *Environment and Behavior* 42, vol. 1 (2010): 135-48.

1. Immigrants Account for Most Workforce Growth in Napa County from 1990 to 2010

Napa's overall workforce grew modestly over the past two decades, with immigrants and Latinos accounting for most of the growth. During the 1990s, the number of foreign-born workers ages 18 to 64 rose by 99 percent versus 15 percent for US-born workers (see Table 7).[35] Overall growth slowed between 2000 and 2008-09, especially during the period leading up to and during the recession (after 2005-06), but the pattern remained similar with substantial growth in immigrant workers (60 percent) but very little among natives (9 percent). Latinos were the fastest-growing group of immigrant workers during the 1990s, but they were outpaced by non-Latino (mostly Asian) immigrants after 2000.

Table 7. Immigrant and Latino Workers* in Napa County, 1990 to 2008-09

Year Data Source	1990 Census	2000 Census	2005-06 ACS	2008-09 ACS	Change 1990 to 2000	Change 2000 to 2008-09
Total Workers	44,800	57,500	66,200	69,900	28%	22%
Foreign Born	7,200	14,300	18,600	22,900	99%	60%
Native Born	37,600	43,200	47,600	47,000	15%	9%
Latino Workers	6,700	14,100	17,600	21,000	110%	49%
Foreign Born	4,400	9,900	13,000	14,200	125%	43%
Native Born	2,300	4,200	4,600	6,800	83%	62%
Non-Latino Workers	38,100	43,400	48,600	48,900	14%	13%
Foreign Born	2,800	4,400	5,600	8,700	57%	98%
Native Born	35,300	39,000	43,000	40,300	10%	3%
Foreign-Born Share of All Workers	16%	25%	28%	33%	9%	8%
Latino Share of All Workers	15%	25%	27%	30%	10%	6%
Foreign-Born Share of Latino Workers	66%	70%	74%	68%	5%	-3%

*Workers are defined as adults ages 18 to 64 who worked any hours in the week before they responded to the survey. Some lived in Napa County while others commuted.
Source: MPI analysis of US Census of Population Housing and ACS data, various years.

Immigrants represent a greater share of county workers than residents, and their share of workers is growing more rapidly. In 1990, immigrants were 16 percent of workers and 12 percent of the total population living in the county. In 2009, they were 33 percent of workers and 21 percent of the total population. From 1990 to 2009, the number of immigrant workers grew 218 percent while the total immigrant population rose 121 percent. These figures exclude seasonal migrant agricultural workers, approximately 1,800 of whom come to Napa each year for less than three months during the fall harvest.[36]

The ratio of residents to workers differs for the Latino versus immigrant populations as Latinos comprise equal shares of the resident population and the workforce (see tables 2 and 7 for comparison). The higher share of Latinos residents relative to workers owes to the large and growing number of second-generation Latinos, many of whom are children.

2. A Large and Growing Share of Immigrant Workers Commute to Napa County

The county's residents and its workers are two very different populations because so many people commute into the county every day. A limited and expensive housing supply restricts housing choices for workers, especially immigrants with low incomes. The recession exacerbated problems of housing afford-

35 Here we define workers to include those residing in Napa County as well as commuters.
36 A 2005 survey of farmworkers in Napa County estimated the farmworker population at 6,800 — with 3,700 employed seven months or more, 1,300 employed for three to six months, and 1,800 employed less than three months. See Strochlic et al., *An Assessment of the Demand for Farm Worker Housing.*

ability, as people lost jobs and earned reduced wages, while others lost their homes due to foreclosure. As a result, the resident workforce has stagnated since the recession, with the number of commuters increasing substantially. These patterns are evident for immigrants as well as natives.

The number of native-born workers in the county remained flat since the recession, at about 47,000. Neither the number of native-born resident workers nor that of commuters changed much between 2005-06 and 2008-09 (see Table 8).

Immigrants increased their share of the overall workforce slightly and of commuters substantially during this period. The number of immigrant workers residing in the county grew by 8 percent, while the number of immigrant commuters rose 58 percent. By 2008-09, 39 percent of immigrant workers lived outside the county. Almost two-thirds (63 percent) of immigrants commuting to Napa County lived in neighboring Solano County; 12 percent lived in Sonoma, another neighboring county (see Map 2 earlier in the report). These figures again exclude the estimated 1,800 migrant agricultural workers who are employed less than three months during the harvest; this group tends to live in the Central Valley and other non-neighboring regions of the state.

Higher housing costs appear to be a primary motivation for commuting among Latino immigrants, as in-commuters have lower incomes than resident workers. In 2008-09, Latino immigrant workers who lived in the county had median annual earnings of $26,000 compared with $20,000 for Latino immigrants who commuted in from other counties.

This pattern does not hold for other groups of workers, suggesting that housing costs may be less of a factor in their commuting decisions. Among native-born workers, residents actually earned less than commuters ($42,000 versus $47,000).

There are also a significant number of out-commuters residing in Napa. Almost 3,100 immigrants who live in Napa County commute to work in other counties, primarily Solano, San Francisco, and Marin. Yet there are three times as many immigrant in-commuters (9,000). Both immigrants and natives who out-commuted earned more than those who lived and worked in Napa County and those who commute in for work.[37] According to community respondents, commuting from American Canyon into the Bay Area is common among many non-Latino immigrants, notably Filipinos employed in the health care industry.

37 Median annual earnings were $56,000 for native-born out-commuters and $41,000 for immigrant out-commuters in 2008-09. Median annual earnings for Latino out-commuters were lower at $35,000; small sample sizes preclude disaggregation of Latino immigrant out-commuters by nativity.

Table 8. Napa County Resident Workers* and Commuters, 2005-06 and 2008-09

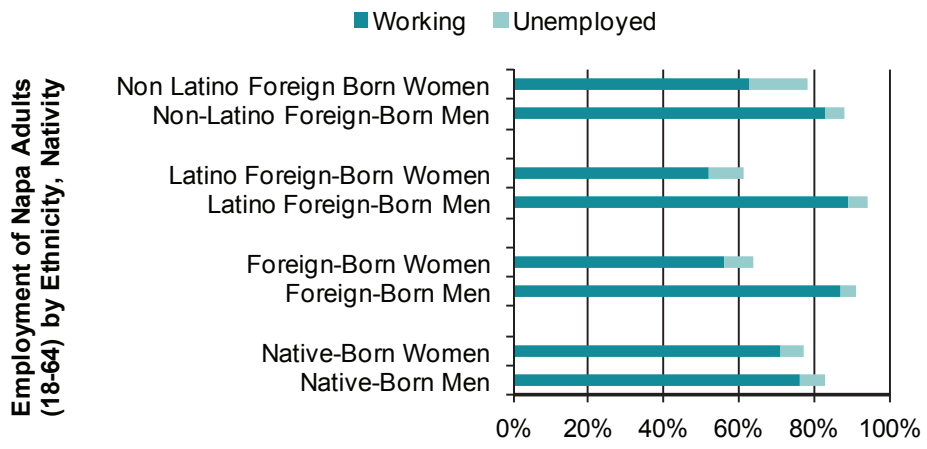
Year Data Source	2005-06 ACS	2008-09 ACS	Change
Total Workers	66,200	69,900	6%
County Residents	46,300	46,100	0%
Commuters	19,800	23,800	20%
Foreign-Born Workers	18,600	22,900	23%
County Residents	12,900	13,900	8%
Commuters	5,700	9,000	58%
Native-Born Workers	47,600	47,000	-1%
County Residents	33,400	32,200	-4%
Commuters	14,200	14,800	4%
Commuters' Share of All Workers	30%	34%	4%
Commuters' Share of Foreign-Born Workers	31%	39%	9%
Commuters' Share of Native-Born Workers	30%	31%	2%

*Workers are defined as adults ages 18 to 64 who worked any hours in the week before they responded to the survey.
Source: MPI analysis of data from the 2005-06 and 2008-09 ACS.

3. Employment Is Relatively High for Immigrant Men but Lower for Immigrant Women

Returning to the resident immigrant population, workforce participation is higher for immigrant men, particularly Latinos, than native-born men. Immigrant women, however, are less likely than native-born women to work. In 2008, 89 percent of Latino immigrant men ages 18 to 64 residing in Napa County were working and another 5 percent were unemployed and looking for work; only 6 percent of these adult working-age men were not in the labor force (see Figure 10). By contrast, 83 percent of non-Latino immigrant men and 76 percent of US-born men were working. Among women, the share working was lowest for Latina immigrants (52 percent) and highest for the US born (71 percent). Immigrant women who were not Latina had the highest unemployment rate (15 percent). Because virtually all Latino immigrant men work, their households generally have at least one worker.

Figure 10. Working and Unemployed Adults (Ages 18-64) in Napa County by Nativity and Ethnicity, 2007-09



Source: MPI analysis of data from the 2007-09 ACS, pooled.

4. Immigrants Are One-Third of County Workers and Three-Quarters of Agricultural Workers

Immigrants have been increasing their share of Napa County's workforce, and comprised 31 percent of all county workers in 2007 (see Table 9).[38] They have long been the mainstay of agriculture, where they make up 73 percent of all workers. Agriculture is the lead sector of the Napa Valley economy, with immigrants working in vineyards and wineries since the 1950s. As Napa wines rose to the top of the international market, the demand for high-quality grapes has risen, albeit with some drop in demand during the recession.

Today, many immigrants are relatively high-skilled workers with year-round jobs in the vineyards, although lower-skilled migrant workers still come in relatively large numbers during the harvest. In 2009, agricultural employment averaged 5,000, peaking at over 6,000 during the summer and fall. Respondents reported that migrant workers are brought in during the harvest, but that agricultural employment is steady for most workers except during the winter.

Immigrants also comprise substantial shares of workers in manufacturing and hospitality, both sectors closely tied to the wine industry. Immigrants were 39 percent of all manufacturing workers, and we estimate that wineries employed over half of all manufacturing workers.[39] They were 29 percent of workers in hospitality, a sector that grew significantly during the past decade as many new hotels and resorts were built.

Outside the wine industry, immigrants comprised substantial shares of workers in construction (37 percent), information (26 percent), and education, health, and social services (20 percent). Thus immigrant employment is dispersed across many sectors of the Napa Valley economy.

Table 9. Immigrants as Share of Napa County Workers,* by Industry, 2005-09

	US-Born (thousands)	Immigrants (thousands)	Immigrants Share**
Total Civilian Employment	68,400	21,100	31%
Selected Industries			
Agriculture	4,900	3,500	73%
Manufacturing	9,500	3,700	39%
Construction	6,800	2,500	37%
Hospitality	8,200	2,400	29%
Information, Other Professional	9,300	2,400	26%
Education, Health and Social Services***	14,100	2,800	20%
Wholesale and Retail Trade	8,600	1,600	18%

*Workers are defined as adults ages 18 to 64 who worked any hours in the week before they responded to the survey. Some lived in Napa County while others commuted.
**Percentages do not exactly match absolute numbers of workers due to rounding.
***These are private-sector education, health, and social services workers; public-sector employees are excluded.
Source: MPI analysis of data from the 2005-09 ACS, pooled.

38 Our analysis of immigrant workers by sector relies on five years of data because of the small samples of immigrant workers in each sector; pooling data for 2005 through 2009 does not allow us to account for employment trends during the recession, but we address the recession using annual California employment data in the next section of the report.

39 According to the ACS data, 54 percent of immigrant manufacturing workers and 61 percent of native-born workers were employed in beverage production. According to the IMPLAN data used in our economic impact analysis, over 90 percent of beverage production workers were employed in wineries, with a handful employed in breweries and water/soft-drink bottling.

5. Most Immigrant Men Work in Agriculture, Construction, or Manufacturing while Immigrant Women Are More Likely to Work in Hospitality, Education, and Health and Social Services

Employment patterns differ for immigrant men and women. Community respondents reported that men are more likely to work in agriculture and women in hospitality, at least in the Upvalley. The Napa and American Canyon areas have a more diverse economy with a substantial number of construction, manufacturing, and service-sector jobs, though employment in these sectors has declined some since the recession. The ACS data show high concentrations of immigrant men in agriculture, manufacturing, and construction, with immigrant women more concentrated in hospitality, education, health, and social services.[40]

In 2007, more than half of the county's male immigrant workers were employed in three sectors: agriculture (23 percent), manufacturing (19 percent), and construction (18 percent); see Figure 11).[41] Native-born men were much less likely than immigrants to work in agriculture (3 percent versus 23 percent), but manufacturing and construction were important industries for their employment. Native-born men were more likely to work in education, health, social services, and professional jobs — jobs that generally carry higher human-capital requirements and pay better wages.

Figure 11. Industries of Employment for Napa County Male Workers,* by Nativity, 2005-09

*Workers are defined as adults ages 18 to 64 who worked any hours in the week before they responded to the survey. Some lived in Napa County while others commuted.
Source: MPI analysis of data from the 2005-09 ACS, pooled.

Due to the concentration of male immigrant workers in the agriculture sector, a legalization program designed for agricultural workers would likely benefit at least some of Napa County's immigrants. Federal legislation granting legal status to farm workers has been considered by the Congress numerous times during the past decade, including during the 2006 and 2007 immigration reform efforts.[42] Most recently, a path to legal status for unauthorized agricultural workers was introduced as part of the *Comprehensive Immigration Reform Act of 2011.* This bill would allow qualified agricultural workers to apply for temporary, conditional legal status and to eventually make the transition into permanent status after meeting agricultural work requirements and paying fines. The integration benefits of such a plan would likely extend far beyond Napa County's agriculture sector, as the spouses and children of qualified workers probably would also be eligible for legal status under this legislation.[43]

40 These are private health, education, and social services workers. Government workers are classified as "other workers." Employees at the largest hospitals, Queen of Valley and St. Helena, and at the largest community clinic, Clinic Olé, are private employees not government employees. Most teachers, however, work in the public schools or community college system.

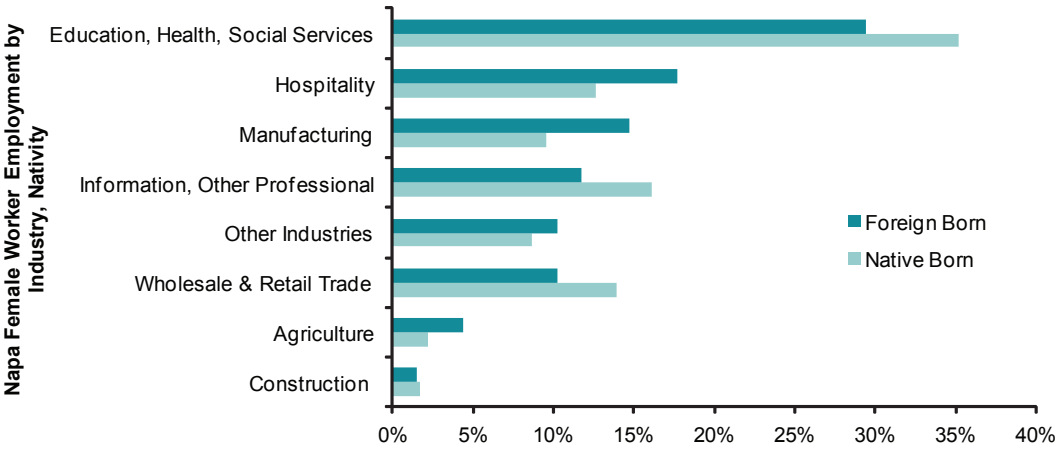
41 These findings are based on pooling data for 2005 through 2009, a period before and during the recession. Data limitations do not allow us to display industry-level findings with fewer than five years of data. Employment distribution may have changed since the recession, particularly with the drop in construction and hospitality employment. Changes in overall employment since the recession are discussed in the next section of the report.

42 Andora Bruno, *Immigration: Policy Considerations Related to Guest Worker Programs* (Washington, DC: Congressional Research Service, 2007), www.au.af.mil/au/awc/awcgate/crs/rl32044.pdf.

43 *Comprehensive Immigration Reform Act of 2011*, S1258, 112th Cong., 1st sess., June 22, 2011, http://thomas.loc.gov/cgi-bin/query/z?c112:S.1258:.

There is little difference in the sectoral distribution of immigrant and US-born women. In 2007, private education, health, and social services comprised the most common industry of employment for both immigrant women (29 percent) and US-born women (35 percent); see Figure 12. Immigrant women were slightly more likely to work in hospitality and manufacturing, while native-born women were more likely to work in wholesale and retail trade or in professional jobs.

Figure 12. Industries of Employment for Napa County Female Workers,* by Nativity, 2005-09



*Workers are defined as adults ages 18 to 64 who worked any hours in the week before they responded to the survey. Some lived in Napa County while others commuted.
Source: MPI analysis of data from the 2005-09 ACS, pooled.

6. Immigrants Earn Less than US-Born Workers in all Industries Except Hospitality

There is a substantial earnings gap between immigrants and natives in all industries except hospitality (see Figure 13). Immigrants' earnings are highest in education, health, and social services — where workers have the most education — and lowest in agriculture and hospitality, where part-year and part-time work are common. Native workers tend to be much better paid than immigrants in agriculture, construction, and manufacturing, and the earnings gap with natives is greater for immigrant men than women.

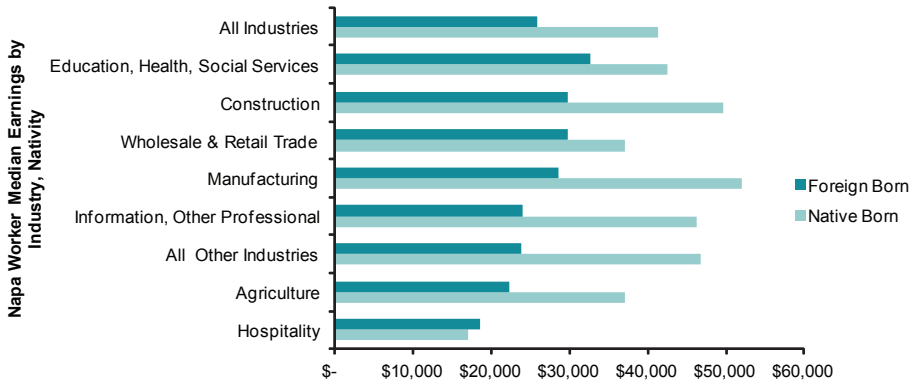
Immigrants working in agriculture earn substantially more in Napa County than workers across the state. In 2007, median annual earnings were $22,000 for the county's agricultural workers versus $17,000 statewide. Study respondents attributed the relatively high earnings of agricultural workers in Napa County to several factors, including long pruning and harvesting cycles for grape growing, long hours of work during harvesting, and high hourly wages for skilled pruning workers.[44] Part-time work (i.e., fewer than 40 hours per week) is comparatively rare in agriculture in Napa County, although more than a quarter of immigrants only work for part of the year in that sector (see Figures 14 and 15).

Immigrant construction workers in Napa County also earned more than their counterparts statewide ($30,000 versus $26,000). This pattern did not hold in manufacturing and hospitality. When all sectors are considered, immigrant workers in Napa earned about the same as their counterparts statewide ($26,000 versus $27,000).[45]

44 The most recent years of ACS data do not allow us to calculate hourly wages. The earnings figures provided here are for the entire year and include part-time as well as full-time workers.

45 Immigrants' household incomes are higher in Napa County than statewide, while their earnings are similar. This pattern is partially explained by the relatively high incomes of county residents versus commuters. Immigrants who live in Napa and commute out have higher earnings, while those who live elsewhere and commute into Napa for work have lower earnings, than immigrants who both reside and work in the county.

Figure 13. Median Annual Earnings for Napa County Workers,* by Industry and Nativity, 2005-09



*Workers are defined as adults ages 18 to 64 who worked any hours in the week before they responded to the survey. Some lived in Napa County while others commuted. Earnings include salaries, wages, and self-employment income. Workers with negative and zero earnings are excluded.
Source: MPI analysis of data from the 2005-09 ACS, pooled.

7. A Large Majority of Immigrants in All Sectors Work Year-Round and Full-Time Even though Many Jobs in Agriculture and Hospitality Are Part-Year

Immigrants working in Napa County were slightly more likely than US-born workers to work part of the year (20 versus 17 percent), but they were only half as likely to work part time (12 percent versus 23 percent) in 2005-09.[46] Part-year work is most common for immigrants in agriculture, while construction and manufacturing also show significant levels of seasonal work (see Figure 14). Similar shares of immigrant agricultural workers worked part-year in Napa County (28 percent) and California (25 percent), and part-year work was almost as common for the county's immigrant construction and manufacturing workers as for agricultural workers.

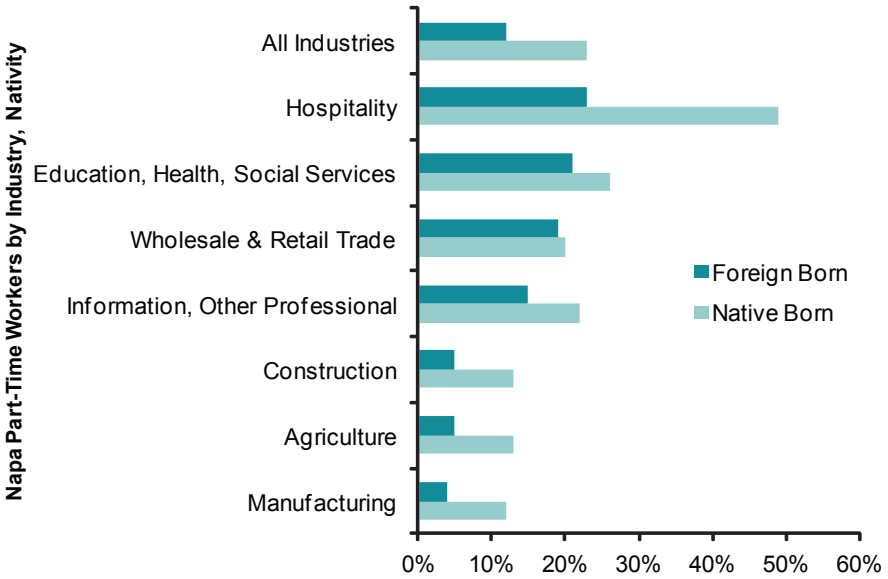
Native-born workers show a very high rate of part-year work in hospitality (33 percent), about twice the rate for foreign-born workers. This pattern matches the pattern in California, and as we show below, native-born hospitality workers are also much more likely to work part-time than immigrants. Native-born workers also tend to be younger than immigrants working in hospitality, and so some may be taking these jobs during the summer when they are not in school.

46 Year-round work is defined as 50 weeks or more during the year, while part-year work is fewer than 50 weeks. Full-time work is 35 hours or more during the average week, while part-time work is fewer than 35 hours per week on average. Data here are for 2005 through 2009 pooled due to limited sample sizes in the ACS, and so we were unable to analyze changes in seasonality caused by the recession. Study respondents reported a drop in weeks and hours of work after the recession began in some industries, particularly hospitality, but we were unable to confirm these reports.

Figure 14. Part-Year Workers* in Napa County, by Selected Industries and Nativity, 2005-09

*Workers are adults age 18 to 64 who worked in Napa County; some resided in the county but others commuted. Seasonal workers were employed fewer than 50 weeks during the year before they were surveyed.
Source: MPI analysis of data from the 2005-09 ACS, pooled.

Figure 15. Part-Time Workers* in Napa County, by Selected Industries and Nativity, 2005-09



*Workers are adults age 18 to 64 who worked in Napa County; some resided in the county but others commuted. Part-time workers were employed fewer than 35 hours per week on average during the year before they were surveyed.
Source: MPI analysis of data from the 2005-09 ACS, pooled.

In contrast with the pattern for part-year work, US-born workers were more likely to work part-time than immigrant workers in every major industry group. Very low shares of immigrants worked part time in agriculture, construction, and manufacturing (5 percent or less in all three industries). The gap in part-time work was greatest in hospitality, where 49 percent of natives but only 23 percent of immigrants worked part-time (see Figure 15).[47]

47 Many native-born workers are waiters, waitresses, and bartenders, jobs that are often part-time. Immigrants, by contrast, are more likely to hold food preparation jobs that generally have longer hours. In 2007, 59 percent of chefs, cooks, and other food preparation workers in Napa County's hospitality sector were immigrants, versus just 9 percent of waiters, waitresses, and other food service workers.

8. Agricultural Employment Held Steady during the Recession

Agriculture remains a leading sector in Napa County's economy, with employment holding steady despite the recession. The number of farm workers in the county changed little between 2000 and 2007 or between 2007 and 2009 (see Table 9).[48] The total value of agricultural production in the county, however, fell 5 percent (from $485 million to $461 million) from 2006 to 2010. The volume of agricultural production and its total value fluctuated from year to year, driven mostly by changes in the prices of grapes.[49] But the amount of land in agricultural production increased slowly during this period. Study respondents reported that the price of grapes fell and there was a decline in demand for high-value wines during the recession, but that vineyards continued their production and laid off very few workers. Profits declined and hours of work may have declined somewhat, but the vineyards maintained their investments in their mostly immigrant workforces as they anticipated an uptick in demand once the economy recovered. Respondents also reported that some vineyards laid off older immigrant workers with higher wages and benefits, in order to hire younger, less well-paid workers.

Manufacturing employment declined somewhat (7 percent) between 2007 and 2009, suggesting that some parts of the wine industry, in particular wine bottling, may have been affected by the recession. These data do not disaggregate beverage production from other manufacturing, and so we cannot discern whether the drop in employment occurred in wineries or other sectors of the county's manufacturing economy. Yet the data do suggest that immigrants have been vulnerable to the recession, since manufacturing is the second largest sector of employment for immigrant men, after agriculture.

Table 10. Change in Total Napa County Employment in Selected Sectors (%), 2000 to 2007 and 2007 to 2009

	2000-2007	2007-09
Total Civilian Employment	**10%**	**-2%**
Farm	0%	2%
Construction	29%	-36%
Manufacturing	14%	-7%
Financial Activities*	0%	-4%
Education and Health Services (private)**	14%	-5%
Leisure and Hospitality	18%	-4%

*Financial activities include banking and real estate workers.
**These are private-sector education and health services workers. Public-sectors workers are excluded.
Source: California Employment Development Department, "Napa MSA (Napa County) Industry Employment and Labor Force – by Annual Average: March 2009 Benchmark," LMI for Napa County California, Industry Employment Data," accessed March 2011, www.calmis.ca.gov/htmlfile/county/napa.htm.

Community respondents reported that hospitality — including hotels, resorts, and restaurants — felt the impact of the recession, with reduced hours and layoffs. Collections of Napa County's transient occupancy tax fell 22 percent (from $9.68 million to $7.56 million) between fiscal years (FY) 2008 and 2010, after more than doubling between 2002 and 2008.[50] The labor market data show a more modest decline of 4

48 The ACS data analyzed for this report indicate the number of workers in agriculture and related industries at about 5,500 for 2008-09. The most recent Napa County farmworker survey estimated that there were 6,800 farmworkers in 2005, 1,800 of whom worked in the county less than three months per year (primarily during the fall harvest). The 5,500 agricultural workers counted in the ACS data are slightly higher than the 5,000 farmworkers employed three months or more, and thus the undercount of this population in the ACS appears to be minimal. See Strochlic et al., *An Assessment of the Demand for Farm Worker Housing.*

49 The value of winegrape production rose 1 percent from 2006 to 2007, then fell 15 percent to 2008, rose 23 percent to 2009, and fell 8 percent to 2010. See Napa County Department of Agricultural Weights and Measures, *Crop Report* (Napa, CA: Napa County government, various years), www.countyofnapa.org/pages/departmentcontent.aspx?id=4294969777, accessed May 20, 2011.

50 County of Napa, *Comprehensive Annual Financial Report for the Fiscal Year Ended June 30, 2010* (Napa, CA: Napa County Auditor-Controller, 2011): 185, www.countyofnapa.org/WorkArea/linkit.aspx?LinkIdentifier=id&ItemID=4294973565, accessed May 9, 2011.

percent in hospitality employment from 2007 to 2009, which likely affected immigrant women more than immigrant men.

Education and health services — a third high-immigrant employment sector — also showed a slight decline in total employment between 2007 and 2009.

Construction was the hardest-hit industry in Napa County as nationally, with new housing construction declining significantly. The number of building permits issued for single-family homes fell by half between 2008 and 2010.[51] Commercial construction, on the other hand, continued at a strong pace through 2010, due to projects already in the pipeline before the recession.[52] Due to the strong pace of commercial construction, Napa County's total property value remained constant between 2008 and 2010 despite a large decline in home prices.

After growing 29 percent between 2000 and 2007, total construction employment fell 36 percent from 2007 to 2009. Immigrant workers are more likely than native-born workers to be employed in residential construction, and so the end of the housing boom has affected them more than native-born workers.[53] Absorption of agricultural workers and new migrants into the construction industry ended with the recession, and respondents reported that some construction workers have returned to the fields, particularly at harvest time. The drop in immigrant employment mostly affected immigrant men, as very few women were employed in the sector.

9. Limited English Proficiency and Low Education Levels Limit Immigrants' Mobility

Several factors limit immigrants' mobility from low-skilled jobs in agriculture, construction, and hospitality to better-paying jobs in these and other sectors. Two are English language ability and level of formal education. Jobs across the US economy that pay wages high enough to support families generally require at least a high school degree plus some additional postsecondary education as well as strong English skills.

In Napa County, as elsewhere in California, a majority of immigrants lack strong English skills and a high school education. In 2007, 60 percent of immigrant workers in Napa County were Limited English Proficient (LEP): they spoke a language other than English at home (usually Spanish) and did not speak English very well.[54] The LEP share of immigrant workers statewide was 56 percent.

Immigrants working in agriculture are the most likely to be LEP, followed by those in construction, manufacturing, hospitality, and information (see Figure 16). In all five sectors, a majority of immigrants did not speak English very well. In agriculture, 40 percent of immigrant workers did not speak English at all.

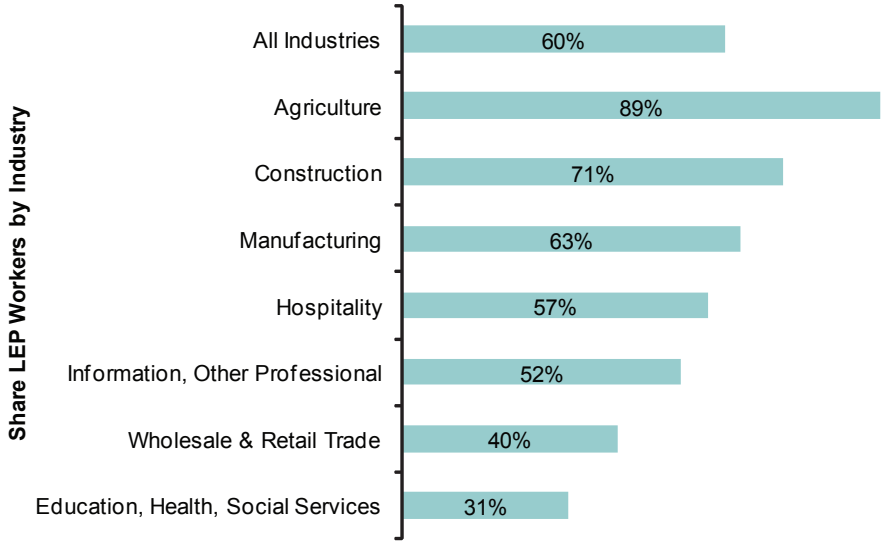
51 Jennifer Huffman, "Home-building permits bottom out across Napa Valley, construction inches forward," *Napa Valley Register*, March 3, 2011, http://napavalleyregister.com/news/local/article_6dce37e4-456c-11e0-b899-001cc4c03286.html.

52 James Noonan, "Napa defies trend, sees property assessments increase," *Napa Valley Register*, March 9, 2011, http://napavalleyregister.com/news/local/article_f105dd2a-4a20-11e0-9453-001cc4c002e0.html.

53 For more on immigrant employment in residential construction, see Dale Belman, "Construction Labor Shortages and Immigration," (Powerpoint presentation for "Labor Shortages and Comprehensive Reform" meeting at Economic Policy Institute, Washington, DC, May 26, 2009), http://epi.3cdn.net/9849209ae826da3a01_63m6bns6y.pdf.

54 The Census further subdivides Limited English Proficient (LEP) individuals into those who speak English well (21 percent of Napa County immigrant workers), not well (22 percent), and not at all (17 percent).

Figure 16. Share of Napa County Immigrant Workers with Limited English Proficiency, by Selected Industries, 2005-09



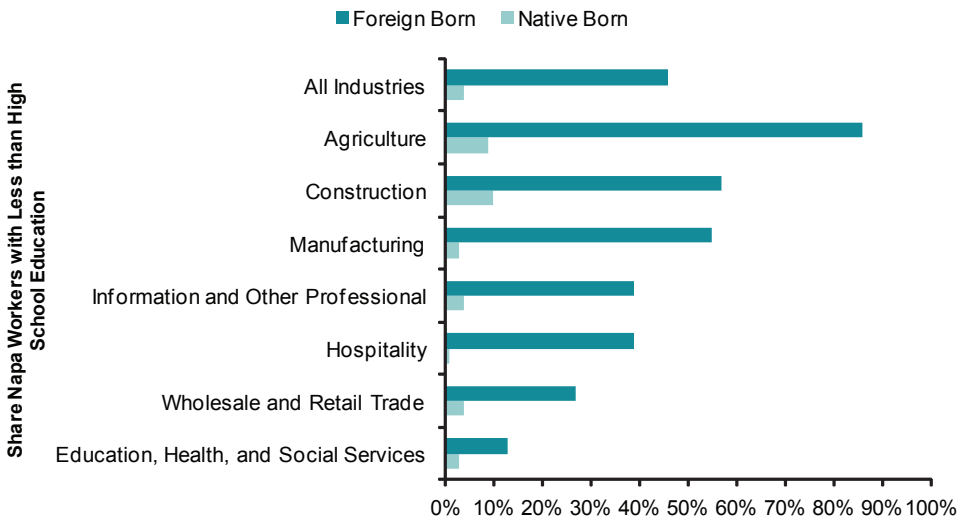
Note: Workers are adults age 18 to 64 who worked in Napa County; some resided in the county but others commuted. Limited English Proficient (LEP) workers spoke a language other than English in the home and did not speak English very well. English proficient workers spoke English at home or spoke another language and spoke English very well.
Source: MPI analysis of data from the 2005-09 ACS, pooled.

Napa County's immigrant workers also have relatively little formal education. In 2007, 46 percent of immigrant workers had less than a high school education, versus 4 percent of US-born workers (see Figure 17). Agricultural workers were the least well educated, with 86 percent of immigrants and 9 percent of natives lacking a high school education. Most immigrant workers in construction and manufacturing also lacked a high school degree.

California's immigrant workers were better educated than those in Napa County, as one-third had less than a high school education (versus 46 percent for Napa County). Immigrants working in agriculture, construction, and hospitality also tended to be poorly educated statewide, but immigrants in California's manufacturing sector were relatively better educated. The greater diversity of the economy and the immigrant population in California may partially explain the higher educational attainment of workers in the state versus the county.

The relatively low educational attainment and English proficiency of Napa County's immigrant workers can be challenging for workforce development. It will be difficult for immigrants to move up within or out of agricultural, manufacturing, construction, and hospitality jobs without substantial investments in basic education and English language instruction. But while they are less well educated than their counterparts across the state, immigrant workers earn about the same in Napa County as California ($26,000 versus $27,000).

Figure 17. Share of Napa County Workers with Less than a High School Education, by Selected Industries and Nativity, 2005-09



Note: Workers are adults age 18 to 64 who worked in Napa County; some resided in the county but others commuted.
Source: MPI analysis of data from the 2005-09 ACS, pooled.

G. *Economic Contributions of Immigrants to the Napa Valley Economy*

We use two methods to develop upper- and lower-bound estimates of the GDP of Napa County attributable to the immigrant workforce. Napa County had an estimated GDP of $7.18 billion in 2009.[55] Our upper-bound estimate is based on an aggregate or "top-down" approach, which separates the dollar value of GDP into the proportion attributable to labor and the proportion attributable to capital. We then separate the value of the labor contribution of Napa GDP into the immigrant and native labor components. The second method we employ to estimate the Napa County GDP contribution of immigrant workers uses disaggregated data and a "bottom-up" approach. It focuses on the four central wine-related industries in the county: vineyards, wineries, accommodations, and food services.

1. Upper-Bound Estimate of Immigrant Contribution to GDP: $1.07 Billion

The first method relies on some GDP accounting that is frequently attributed to Paul Douglas, an economist and US senator from the state of Illinois from 1949 to 1966. Douglas was one of the first economists to note that the division of GDP between capital and labor was roughly constant over a long period.[56] GDP can be decomposed into the contribution to GDP of labor (the amount of labor times the aggregate wage) and the contribution to GDP of capital (the amount of capital times its rental price paid to the owners of capital):

(1) GDP = Labor *Wages + Capital*Rental Price.

The labor share of national GDP has been falling since 2000 and reached 60 percent in 2009.[57] Applying the national labor share to the Napa County economy, we estimate the overall impact of all workers on county GDP to be $4.31 billion (or 60 percent of $7.18 billion) in 2009. Immigrants accounted for 33 percent of all Napa County workers, and so if their productivity were the same on average as all workers, their contribution to GDP would be $1.42 billion, or 20 percent of GDP. But we assume that immigrants' productivity relative to other workers can be measured by their wages relative to other workers. In

55 IMPLAN Gross Regional Product value for 2009.
56 The algebra of this GDP decomposition can be found in standard macroeconomic textbooks such as the one written by N. Gregory Mankiw, *Macroeconomics* 7th edition (New York: Worth Publishers, 2009).
57 Susan Fleck, John Glaser, and Shawn Sprague, "The compensation-productivity gap: a visual essay," Bureau of Labor Statistics *Monthly Labor Review*, January 2011, 63, www.bls.gov/opub/mlr/2011/01/art3full.pdf.

2008-09, immigrants' median earnings were $30,000 versus $40,000 for all workers. Reducing immigrants' overall contribution accordingly ($1.42 billion *75 percent) results in an estimated upper-bound contribution of $1.07 billion, or approximately 15 percent of the county's GDP in 2009. This upper-bound estimate does not account for the possibility that native-born workers would substitute for immigrant workers if they left the county.-

2. Lower-Bound Estimate of Immigrant Contribution to GDP: $317 Million

Our lower-bound estimate for immigrants' contribution to county GDP relies on economic modeling using Impact for Planning and Analysis (IMPLAN) software and is based on four specific sectors related to the Napa Valley wine industry: 1) crop production — mostly wineries; 2) beverage production — mostly vineyards; 3) hotels and other accommodations; and 4) restaurants and other food services. The wine industry composed of these four sectors is generally considered to be the main driver of economic activity in the county. Together these four sectors employed 37 percent of all immigrant workers in 2008-09. This lower-bound estimate also accounts for remittances sent by immigrant workers to their countries of origin and for immigrants who commute to work in Napa County and may spend their disposable income in their counties of residence rather than Napa.

IMPLAN is a software package often used by economic analysts and planners, including those who recently estimated the overall contribution of the wine industry to the Napa County economy.[58] We used ACS data for 2008-09 to obtain the shares of immigrant employment and shares of total wage and salary income in these sectors as inputs into the IMPLAN model.[59]

We modeled the impact of removing all immigrant workers from four specific sectors: vineyards, wineries, hotels and other accommodations, and restaurants and other food services. Vineyards and wineries are included within the larger sectors of crop production and beverage manufacturing.[60] Together these four sectors employed 27 percent of all workers and 37 percent of immigrant workers in 2008-09. The direct contributions of immigrant workers to the GDP or "value added" of these four sectors (i.e., the amount that production would fall in these industries if immigrant workers were to leave the county) was an estimated $97 million in 2009. Because these are leading sectors in the local economy, they also generate economic activity in other sectors such as agricultural support, real estate, construction, and wholesale trade. Withdrawing the immigrant workers from crop production, beverage manufacturing, hotels and other accommodations, and restaurants and other food service resulted in indirect effects (i.e., reduction of activity in other county sectors) of $132 million. This indirect impact of $132 million is also associated with the employment of 1,600 workers in other sectors of the county's economy.

Additionally, immigrant workers spend money in the local economy. After subtracting payroll taxes, remittances, and the incomes of immigrants who commute to Napa from other counties, we estimate that immigrant households with workers employed in the four sectors spent $87 million in the Napa County

58 IMPLAN is an input-output accounting model that describes the flow through local, state, and national economies of commodity values from producers to intermediate and final consumers. IMPLAN includes county-level data for employment, employee compensation, proprietor income, and final sales for 201 industries in Napa County in 2009. It also includes information about government employment, taxes, and household consumption. The software can be used to model how changes in sales, employment, or employee compensation in a given industry can affect the county's overall economy. The IMPLAN accounts closely follow accounting conventions used by the US Bureau of Economic Analysis. For more detail on how the model used in this report was constructed, see Appendix. For more on the IMPLAN software and data see MIG, Inc., "IMPLAN System" data and software (Hudson, WI: MIG), www.implan.com, accessed October 14, 2011. For an example of IMPLAN analysis of Napa County's wine industry, see www.napavintners.com/downloads/2008_Economic_Impact_Report.pdf.

59 The 2008-09 ACS data show that immigrants were 66 percent of workers and accounted for 57 percent of wage and salary income in the crop production industry; they were 37 percent of workers and accounted for 22 percent of income in beverage production.

60 In the IMPLAN data for 2009, fruit-farming workers were 96 percent of all crop production workers, and our assumption is that almost all the fruit-farming workers in Napa County work in vineyards. Wineries employed 99 percent of all county beverage manufacturing workers.

economy in 2009, and this spending was associated with the employment of 1,000 additional workers.[61] Adding together the direct impact on the four sectors, indirect economic impacts on other Napa County industries, and the induced effects of immigrant spending in the local economy yields a total GDP contribution of $317 million in 2009.

Our analysis is based on a number of assumptions. Most importantly, we assume that immigrant workers would not be replaced if they left the vineyards, wineries, hotels, and restaurants. If other workers were substituted for immigrant labor, then the drop in GDP would be lower than that stated. However, limited evidence from other states suggests that when immigrants leave the area, agricultural employers have a very difficult time finding substitute workers.[62] Additionally, vineyard and winery workers in Napa County have developed important industry-specific skills, such as pruning grapevines, over many years of experience due to the high-end nature of the products they grow and manufacture. Nonetheless, if native-born workers substituted for immigrant workers leaving the county, this would result in a lower economic impact than we calculate here.

One assumption that we adopted leads to more conservative estimates of immigrants' economic impact: we assume that the 39 percent of immigrants who commute to work from other counties spend all of their incomes where they live and not in Napa County. If they spent at least some of their incomes in Napa County, then the economic impact would be greater.

H. Fiscal Costs and Contributions of Immigrants

Alongside the substantial economic contributions documented above, immigrants are also residents and taxpayers in Napa County. They pay over $100 million dollars in state and local income, sales, and property taxes annually. Immigrants' average tax payments are only slightly lower than natives' payments — despite immigrants' lower incomes, the money they send home as remittances, and our assumption that many unauthorized immigrants work off the books and do not pay income taxes. All immigrants, like other Napa County residents, must pay sales and property taxes. Renters as well as homeowners pay property taxes; in the case of renters, property taxes are passed on by landlords as part of the rent.

Immigrants, like other county residents, also use public goods and services. Legal immigrants and their US-born children have relatively high participation in public assistance programs such as welfare, food assistance, and health insurance due to their lower incomes. (Such public assistance programs are not available to unauthorized immigrants.) The costs of public schooling for immigrants' children are also relatively high, since immigrants are younger and tend to have more children on average than US-born adults — a pattern that typically holds in periods of high immigration.[63] Other government costs are generally proportional to immigrants' share of the general population.

1. Immigrant Households' Annual State and Local Tax Payments

We account for three primary revenue sources for individuals at the state and local level: income taxes,

61 We subtracted 14.1 percent for payroll taxes (Medicare and Social Security) at 16 percent, with an assumption that 88 percent of immigrants paid these taxes (35 percent of the 33 percent of immigrants who were unauthorized did not). We then subtracted 11 percent for remittances and an additional 39 percent for those immigrants who commute into work in Napa from other counties. For details on these calculations, see Appendix.

62 See for instance, Kirk Johnson, "Hiring Locally for Farm Work Is No Cure-All," *New York Times*, October 5, 2011, www.nytimes.com/2011/10/05/us/farmers-strain-to-hire-american-workers-in-place-of-migrant-labor.html?ref=illegalimmigrants; Steven Gray, "Convicts or Illegals: Georgia Hunts for Farmworkers As Tough Immigration Law Takes Hold," *Time*, June 26, 2011, www.time.com/time/nation/article/0,8599,2079542,00.html#ixzz1anSBPtKG; John C. McKissick and Sharon P. Kane, "An Evaluation of Direct and Indirect Economic Losses Incurred by Georgia Fruit and Vegetable Producers in Spring 2011—A Preliminary Data Analysis and Summary Working Paper" (Athens: University of Georgia, Center for Agribusiness and Economic Development, 2011), http://gfvga.org/wp-content/uploads/2011/10/Georgia-Fruit-and-Vegetable-Survey-Analysis-Preliminary-Report-10-6-2011.pdf.

63 Jeffrey S. Passel, "Demography of Immigrant Youth: Past, Present, and Future," *The Future of Children* 21, no. 1 (2011): 19-37.

sales taxes, and property taxes.[64] We calculate these taxes for immigrants and their families only; we do not account for taxes generated indirectly by the economic activity we model in our impact analysis. We do not consider corporate taxes or other sources of revenue that are not paid by individuals, and as a result we do not include taxes paid by immigrant-led businesses. We also do not include fees, fines, licenses, charges for services, or other individual revenues that cannot be calculated on a population basis. Finally, since our study is focused on local fiscal impacts, we estimate state and local but not federal taxes. Federal income taxes and payroll taxes (to support Medicare and Social Security) account for a majority of taxes paid by immigrant households, but these taxes go mostly to provide services dispersed across the country (such as defense and homeland security) — making attribution of costs to the local level problematic. Each of these methodological choices is conservative and lowers our estimates of the taxes paid by immigrants.

We calculate taxes at the household level and define "immigrant households" as those headed by an immigrant or with an immigrant spouse present (or where both a household head and his or her spouse are immigrants).[65] Even though immigrants comprised 21 percent of Napa County's population in 2008-09, immigrant households made up 26 percent of county households. The immigrant share of households is higher than their share of individuals because immigrant households often have both foreign- and native-born members — usually immigrant parents and US-born children, and sometimes one immigrant parent and one native-born parent.

When data for 2008 and 2009 are averaged, immigrant households paid a total of $117 million in state and local taxes. Immigrant households paid $38 million in state income taxes, or 21 percent of all state income taxes generated from Napa County (see Table 11). We assume that 12 percent of immigrant households did not pay income taxes because they were unauthorized, worked informally, and did not file income taxes.[66] Immigrant households paid $44 million in state and local sales and use taxes, or 21 percent of the total of $207 million. Here we assume that immigrant households on average send 11 percent of their disposable income to their home countries as remittances, and we subtracted this amount from their taxable consumption.[67]

We estimated local property taxes for both homeowners and renters. In 2008-09, immigrant households paid $35 million in property taxes, or 21 percent of the total of $161 million in residential property taxes. Taxes paid for commercial, industrial, and agricultural properties are not included in this total.

64 These represent the principal taxes analyzed in other studies of the fiscal costs and contributions of immigrants. See for instance, John D. Kasarda, James H. Johnson, Jr., Stephen J. Appold, and Derrek L. Croney, *A Profile of Immigrants in Arkansas—Volume 2: Impacts on the Arkansas Economy* (Washington, DC: The Urban Institute, 2007), www.urban.org/UploadedPDF/411441_Arkansas_complete.pdf; Randy Capps, Everett Henderson, Jeffrey S. Passel, and Michael Fix, *Civic Contributions: Taxes Paid by Immigrants in the Washington, DC, Metropolitan Area* (Washington, DC: The Urban Institute, 2006), www.urban.org/publications/411338.html; John D. Kasarda and James H. Johnson, Jr., *The Economic Impact of the Hispanic Population on the State of North Carolina* (Chapel Hill, NC: University of North Carolina, Kenen-Flager Business School, 2006), www.kenan-flagler.unc.edu/assets/documents/2006_KenanInstitute_HispanicStudy.pdf; and Jeffrey S. Passel and Rebecca Clark, *Immigrants in New York: Their Legal Status, Incomes, and Taxes* (Washington, DC: The Urban Institute, 1998), www.urban.org/publications/407432.html.

65 We similarly define "children of immigrants" as children with at least one immigrant parent, for purposes of calculating expenditures on immigrants.

66 Other studies assume that 35 percent of unauthorized immigrants do not pay income taxes. We multiplied 35 percent by 33 percent (the share of immigrants in Napa County we estimate to be unauthorized), and thus estimated that 12 percent of all immigrant households in Napa County do not pay income taxes. See Kasarda et al, *A Profile of Immigrants in Arkansas,* and Kasarda and Johnson, *The Economic Impact of the Hispanic Population.* We also varied the assumption of immigrants' noncompliance with income taxes from 55 percent to 15 percent, and this variation had little impact on our income tax calculations; for details see Appendix.

67 The assumption that Latino immigrant households send 11 percent of their disposable income to their home countries as remittances is taken from Kasarda et al, *A Profile of Immigrants in Arkansas;* and Kasarda and Johnson, *The Economic Impact of the Hispanic Population.* A survey of 5,000 foreign-born Latinos in the United States suggests that a similar share of income from Latino immigrant households (10 percent) is devoted to remittances, finding that Latino immigrant households remit 20 percent of monthly household income on average, but that only half of Latino immigrant households remit. Total remittances to Latin America have fallen somewhat since the recession, but remittances per household have not been estimated more recently. See Bendixen and Associates, *Survey of Latin American Immigrants in the United States* (Washington, DC: Inter-American Development Bank, 2008), www.iadb.org/en/news/news-releases/2008-04-30/fewer-latin-americans-sending-money-home-from-the-united-states-survey-finds,4595.html.

If federal taxes were included, total taxes paid by immigrant and native households would be much greater. A study of the Washington, DC, metropolitan area estimated that 72 percent of all taxes paid by immigrant households in 2000 were federal income and payroll taxes.[68]

Table 11. State and Local Taxes Paid by Napa County Households by Nativity, 2008-09

	All Households	Immigrant Households	Native Households	Immigrant Share
Number of Households	48,100	12,300	35,800	25.6%
Taxes paid ($ thousands)				
State Income	$187,103	$38,418	$148,685	20.5%
State/Local Sales and Use	$207,113	$43,635	$163,478	21.1%
Local Property	$161,143	$34,554	$126,589	21.4%
Total of Three Taxes	**$555,359**	**$116,607**	**$438,752**	21.0%

Source: See Appendix for methodology and sources of data.

2. Annual State and Local Expenditures on Immigrant Households

We accounted for expenditures attributable to immigrants in four main areas: 1) public K-12 education, 2) public health and public assistance, 3) corrections, and 4) general government at the local level.[69] The largest costs are for general government in Napa County and the various incorporated areas within the county. Local general government expenditures assigned to immigrants totaled $95 million for FY 2008-09, which began on July 1, 2008 (see Table 12). Immigrant shares of general government expenditures were calculated based on foreign-born shares of the total population, which ranged from 33 percent in Calistoga to 6 percent in Yountville. Immigrants are more heavily concentrated in incorporated areas than in the county as a whole, and as a result their share of general government costs is slightly higher than their share of the total population (22 percent versus 21 percent).

68 Capps et al., *Civic Contributions.*

69 These are the principal expenditures analyzed in other studies of the fiscal costs and contributions of immigrants. See for instance, Kasarda et al, *A Profile of Immigrants in Arkansas*; Kasarda and Johnson, *The Economic Impact of the Hispanic Population*; and Rebecca L. Clark, Jeffrey S. Passel, Wendy Zimmermann, and Michael Fix, *Fiscal Impacts of Undocumented Aliens: Selected Estimates for Seven States* (Washington, DC: The Urban Institute, 1994), www.urban.org/publications/405796.html.

Table 12. State and Local Expenditures on Immigrants and Natives, Napa County, 2008-09

	Total Population	Immigrants	Natives	Immigrant Share of Total
Expenditures ($ thousands)				
General Government	$425,111	$94,536	$330,575	22.2%
Napa County	$222,969	$46,823	$176,145	21.0%
City of Napa	$131,782	$30,310	$101,472	23.0%
American Canyon	$30,000	$8,100	$21,900	27.0%
City of Calistoga	$13,500	$4,455	$9,045	33.0%
City of St. Helena	$17,980	$4,315	$13,665	24.0%
Town of Yountville	$8,880	$533	$8,347	6.0%
Health and Public Benefits	$30,325	$8,951	$21,374	29.5%
Prisons	$10,941	$2,271	$8,669	20.8%
Total These Expenditures	**$466,376**	**$105,758**	**$360,618**	22.7%

Source: See Appendix for methodology and sources of data.

The second largest cost is public education at the elementary and secondary level. Children of immigrants — both foreign- and US born — represented just under half (48 percent) of all students in Napa County schools. Accordingly, we estimate that public schools spent $71 million on children of immigrants during the 2008-09 school year, out of total state and local expenditures of $143 million (see Table 13). We calculated schooling costs for immigrants' children in each district; the share of children of immigrants ranged from 61 percent in Calistoga Unified School District to 44 percent in Howell Mountain Elementary District. Federal revenues to the various school districts were excluded from the total. Then we re-allocated approximately $3.5 million in estimated state spending on ELL students, with 94 percent of this spending going toward the education of children of immigrants.[70]

Public K-12 education costs are much lower when only including children who are themselves immigrants. We estimate that 79 percent of schoolchildren in immigrant families were US-born, while 21 percent were foreign-born in 2008-09. (In other words 38 percent of all schoolchildren were US-born children of immigrants, while another 10 percent were themselves immigrants). Out of our $71 million estimate of public schooling costs, $16 million is attributable to immigrant children and $55 million to US-born children with immigrant parents. In other words, if only the costs of immigrant children were included, total expenditures on immigrants would be $55 million lower. For this reason, total expenditures for immigrants could be viewed as ranging from $121 million to $176 million per year.

70 Our analysis of 2008-09 ACS data suggests that 94 percent of ELLs in Napa County were children of immigrants. The California Department of Education reports approximately 4,700 ELL students in the county during the 2008-09, and we estimate that 4,400 of these (94 percent) were children of immigrants. For more on how ELL education costs were apportioned to children of immigrants, see Appendix. Also see Napa County Office of Education, *Napa County Education Review*, Winter 2009, www.napacoe.org/downloadabledocuments/NCOE_edReview_1209_Final.pdf.

Table 13. State and Local Public K-12 Education Expenditures on Children of Immigrants and Children of Natives in Napa County (Thousands of Dollars), 2008-09 School Year

All Students	Childrens of Natives	Childrens of Immigrants	Immigrant Children	US-Born Children of Immigrants	Childrens of Immigrants as Share of Total
$142,482	$71,883	$70,599	$15,552	$55,047	49.5%

Source: See Appendix for methodology and sources of data.

The third set of costs includes health and public assistance expenditures at the Napa County Department of Health and Human Services (NCDHHS), Queen of Valley Hospital (QVH), and Clinic Olé. NCDHHS administers various cash welfare, food assistance, in-home care, and health insurance programs for low-income families and individuals. QVH is a not-for-profit, charity care hospital and the predominant source of emergency room, surgical, and acute care for low-income people in the county.[71] Clinic Olé is a Federally Qualified Health Center with several sites in the county, and is the major source of primary health care for low-income individuals and families. Averaging 2008 and 2009 costs, state and local expenditures on public assistance and health care totaled $30 million, with immigrants accounting for $9 million or 30 percent of the total (see Table 12). The immigrant share of public assistance and health costs exceeds their share of the total population (21 percent) because eligibility for these programs is based on income, and immigrants have lower incomes than the US-born population in Napa County. We include only state and local costs of the health and public assistance programs listed in the Appendix; federal grants and matching funds for these programs are excluded.

The final cost we enumerate is the cost of incarceration in the Napa County correctional facility. Our cost estimate here — $2.3 million — is based on the number of immigrant inmates, their average length of stay, and the average cost per night of their incarceration. Federal reimbursement for immigrant prisoners through the State Criminal Alien Assistance Program is subtracted from the total. Immigrants accounted for 21 percent of incarceration costs during 2008 and 2009 averaged — proportional to their share of the total county population.

3. Comparison of State and Local Tax Payments versus Expenditures

Local tax payments from individuals living in Napa County were lower than state and local government expenditures on services to individuals by $53 million in 2008-09. In general, local expenditures exceed tax payments for three primary reasons. First, we do not account for all sources of state and local revenue, some of which are not derived from or reliably attributable to individuals or households. For instance, we exclude corporate taxes, fines and fees for government services, which can be significant sources of state and local revenue. In 2008-09, for example, Napa County collected nearly $43 million from fines and fees which are excluded from our analysis. Second, California and many jurisdictions within it have run deficits and have done so since before the recession began. Overall revenue has not kept pace with state and local expenses for many years, and reserves for Napa County and other jurisdictions are expected to fall in the coming years. Third, we exclude federal income and payroll taxes from our calculations, because these taxes primarily support services spread across the country rather than targeted at the local level. Nearly three-quarters of taxes paid by immigrant households are collected by the federal government.

Immigrants accounted for 29 percent of state and local expenditures and 21 percent of revenues (see Table 14). Public schooling of immigrants' children, who comprise 48 percent of all schoolchildren in the county, accounted for almost all of the difference between immigrants' share of expenditures (29 percent) and their share of the total population (21 percent in 2008-09 and 23 percent in 2010). The overall cost of educating children of immigrants was $71 million, 78 percent of which went to educating the US-born citizen children of immigrants (see Table 13). If the cost of educating the US-born citizen children of immigrants is excluded, expenditures on public education for immigrant households fall to $16 million. Thus, we present a range of $121 million to $176 million for state and local expenditures attributable to

71 St. Helena is a private hospital that serves the immigrant population in the Upvalley. Respondents, however, told us that the total amount of publicly funded care provided by St. Helena is minimal.

immigrants in Napa County. Regarding children in the public schools who are themselves immigrants, the Supreme Court has declared that the US Constitution requires that schools educate all children, regardless of citizenship or legal status.[72]

Table 14. Comparison of State and Local Tax Payments versus Expenditures by Nativity, Napa County, 2008-09

Net Fiscal Cost ($ thousands)	Total Population	Immigrants	Natives	Immigrant Share
Expenditures from Tables 12 and 13	$608,858	$176,357	$432,501	28.8%
Household tax revenues from Table 11	$555,359	$116,607	$438,752	21.0%
Balance	**$(53,499)**	**$(59,750)**	**$6,250**	
Balance Excluding US-Born Children of Immigrants		**$(4,703)**		

Source: See Appendix for methodology and sources of data.

As elsewhere in the country, the burden of integrating immigrants and their families falls more heavily on the public than the private sector, which reaps most of the benefits. But in Napa County, the private sector also contributes heavily to immigrant integration. The Napa Valley Vintners/Auction Napa Valley contributes between $5 and $10 million annually toward health care, education, and other services for low-income individuals, some of whom are immigrants or the children of immigrants.[73] Private donors and foundations also contribute to community institutions like Clinic Olé, which support services for immigrants.

IV. Conclusions

Napa County is undergoing a rapid demographic transition largely due to recent immigration. Although the pace of immigration has slowed since the recession began, the number of immigrants' children continues to grow quickly. During the 1990s the greatest demographic shift occurred with large inflows of immigrants, mostly from Mexico. Since 2000 the greatest demographic change has been the increase in the second generation of Latinos, especially children of immigrants from Mexico. A third important trend has been a rapid recent rise in the number of Asian immigrants, particularly those from the Philippines, along with a sharp increase in their children in the public schools. The rising numbers of young workers and children from immigrant households are offsetting the aging and overall decline of the county's non-Hispanic white population, a decline that will accelerate with the aging of the baby boom cohort.

Immigration has, quite obviously, been important to the county's economy, particularly in the wine industry and related sectors, including agriculture, manufacturing, and hospitality. Overall, immigrants are 33 percent of workers but just 21 percent of the county's population.

About three-quarters of the county's 5,000 year-round agricultural workers are immigrants, a number that has been fairly stable over the past decade. An additional 1,800 migrant agricultural workers are employed for less than three months during peak harvest periods in the fall.

The recession has affected other industries more deeply, including manufacturing but especially construction, which shed a large number of workers after 2006. The steep decline in construction is most likely to have affected immigrant men, as few immigrant women work in the sector.

Nonetheless, community respondents have reported that the worsening job market combined with the high cost of housing have imposed hardships on many immigrant families. Increasing numbers of work-

72 *Plyler v. Doe*, 457 US 202 (1982).

73 Napa Valley Vintners/Auction Napa Valley grants totaled $6.8 million in 2010. See "2010 Auction Napa Valley grants total $6.8 million," *St. Helena Star*, October 20, 2010, http://napavalleyregister.com/star/business/article_17f447a6-dc84-11df-8c5c-001cc4c002e0.html.

ers, both immigrants and natives, are commuting to Napa from surrounding counties because of Napa's high housing costs. There are a number of programs to assist Napa County's immigrants and other low-income workers with housing. These include the three farmworker housing projects, assistance through affordable housing groups, a federal rapid re-housing grant, and a new initiative to provide down payments for low-income workers buying houses within 15 miles of their place of work. But housing costs remain a critical issue for better integrating immigrants into Napa County.

A second integration concern lies in the limited English proficiency and educational attainment of many immigrant workers in the county. The leading sectors of agriculture and hospitality employ a high share of LEP immigrants, with some jobs in those sectors requiring little formal education or English skills. But for immigrants to move up and out of jobs in these sectors will likely require investments in English language acquisition, adult basic education, and postsecondary programs that provide degrees and credentials valued by the labor market. Providing such human-capital investments will be challenging for the county's workforce preparation system, especially given California's poor fiscal outlook.

A third concern lies in the integration of immigrants' children. Here the public schools play the central role, and their rapidly changing demographics show the impact of immigration on schooling. Latino students are now the largest group of public school children in Napa County. The Napa and Calistoga school districts have been addressing issues surrounding ELL children in their districts for a number of years, but educators are still concerned about the resources required for their education and the outcomes for this group of students. However, over the past decade the number of students reclassified as bilingual has grown by several times, while the number of ELL students has stabilized. These data suggest that at least in terms of English language acquisition, the Napa County public schools may be making progress in educating immigrants' children.

At the same time, Napa County has some valuable and distinctive assets in promoting immigrant integration locally. Employers provide immigrants with health insurance coverage at an unusually high rate. The Napa County Department of Health and Human Services along with the local hospitals and community health centers provide a safety net. The wine industry supports immigrant integration through the Napa Valley Vintners/Auction Napa Valley. Foundations and other private funding sources also help support these types of activities.

Napa County's future prosperity is inextricably tied to the population of immigrants and their children. Without these populations, the county's workforce would shrink, and economic activity would be reduced. To maximize the productivity of the Napa County workforce and minimize the public costs of immigrants and their families, we make the following recommendations:

- Invest in English instruction, high school equivalency courses, and other basic education services to improve the workforce preparedness and productivity of immigrants and second-generation workers who have not graduated from high school. Tailor instruction to key industries that are expected to maintain constant or growing employment, for instance agriculture, hospitality, and especially education and health care.
- Maintain the quality of the county's public schools, where some private funding may be necessary to offset state cuts, especially in the Napa Unified School District. Continue to address the needs of English Language Learners and other diverse groups of students, as the children of immigrants will become a majority of the student body in the near future. Identify and invest in programs that can close the significant achievement gap that exists between non-Latino children and Latino children. Expanding enrollment in prekindergarten programs for Latino children, who participate in preschool at significantly lower rates than their non-Latino counterparts, could be an example of such a program.

- Continue providing health insurance and other employment benefits to agricultural and other low-skilled workers. The relatively high rate of employer-provided coverage of immigrant workers in the county lowers public costs significantly. Supporting health coverage of children in the county through affordable public or private insurance programs also helps lower public health care costs.
- Increase the availability of citizenship programs so eligible residents can participate more fully in the civic and economic life of the community. Napa County lags noticeably behind the rest of California in terms of the percentage of immigrants who have become naturalized citizens, suggesting there may be an opportunity to expand access to citizenship programs. Such programs can help immigrants integrate more fully into Napa County, and create more cohesion among native and foreign-born residents.
- Invest more in affordable housing, particularly in the Upvalley region, where housing is least available and most expensive. Developing more affordable housing will both lower housing hardship in immigrant families and cut down on commuting traffic.

Glossary

Children of immigrants: children with at least one immigrant parent. Children can be either first generation (foreign-born) or second generation (US-born).

Crowded housing: households with more than one person per room. "Severely crowded housing," a subset of crowded housing, has more than 1.5 people per room.

English Language Learner (ELL): see Limited English Proficient.

Federal poverty level: a threshold for economic need set by the federal government according to household size and income. In 2009 the poverty level was $22,050 for a family of four.

First generation: see "immigrants."

Foreign born: see "immigrants."

Housing cost burden: total housing costs (rent or mortgage plus utilities and other housing costs) greater than 30 percent of monthly income. Housing burden is considered "moderate" if housing costs are between 30 and 50 percent of income, and "severe" if costs exceed 50 percent of income.

Immigrants: people born outside the United States and not born to American parents. Does not include people born in Puerto Rico, Guam, or other US territories. Includes both naturalized citizens and noncitizens.

Immigrant households: households in which the head (usually the adult who pays the bills) and/or the spouse of the head is an immigrant (or both are immigrants); other members could be immigrants or US-born.

Legal permanent residents: noncitizens admitted legally for permanent residency, usually through family ties, employment, or as refugees. Legal permanent residents are sometimes known as "green card" holders.

Limited English Proficient (LEP): people who speak a language other than English as their primary language and who do not speak English very well.

Natives/native-born: see "US-born."

Native households: see "US-born households."

Naturalized citizens: legal permanent residents who have become US citizens, usually after passing the citizenship test. The waiting period to take the citizenship test is five years for most permanent residents and three years for those married to US citizens.

Noncitizens: immigrants who have not yet become citizens. Noncitizens can be unauthorized immigrants, legal permanent residents, or in a small number of cases, students and others with temporary visas or protection from removal.

Unauthorized immigrants: noncitizens who entered illegally, usually across the border with Mexico, or who entered legally but overstayed their visas.

US-born: people born in the United States, its territories (such as Puerto Rico and Guam), or born abroad to US citizen parents.

US-born households: households in which neither the head nor the head's spouse is an immigrant.

Appendices: Calculation of Immigrants' Economic Impacts and Tax Payments, and State and Local Expenditures on Immigrants and Their Children

A. Calculation of Lower-Bound Estimate of Economic Impact

Our lower-bound estimate of the economic contributions of immigrant workers to Napa County GDP in 2009 in four wine-industry sectors is based on economic modeling using Impacts for Planning (IMPLAN), a software package used frequently by economic analysts and planners.[74] IMPLAN allows the user to model scenarios based on increases or decreases in employment, employee compensation, business owners' income, and sales in different sectors of the economy. IMPLAN models how changes in these factors in a specific sector of the economy directly affect output in that sector as well as how changes indirectly affect output in other sectors. The software also allows the user to model how changes in household income of a particular group can affect the overall economy in terms of output, sales, and employment.

We used IMPLAN to model a scenario in which all immigrant workers are removed from four major sectors associated with Napa County's wine industry. The sectors and the shares of immigrant workers in them, according to American Community Survey (ACS) data for 2008-09, are:

- Crop production (66 percent immigrant workers)
- Beverage manufacturing (37 percent)
- Accommodations (52 percent)
- Eating and drinking places (25 percent)

Crop production includes vineyards, which account for about 96 percent of employment in the sector. Beverage manufacturing includes wineries, which account for 99 percent of employment in this sector. Accommodations and eating and drinking places are two central hospitality sectors, both of which are connected to the wine industry via tourism.

For the industry-based scenario, we reduced employment in each of these four sectors by the share of immigrants. We reduced the sales for each industry by immigrants' share of employee compensation, assuming that immigrants' productivity relative to other workers is reflected in their wages. As immigrants are lower-paid than other workers except in eating and drinking places, our reduction of sales was not as great as the reduction in the number of employees:

- Crop production (57 percent reduction in sales)
- Beverage manufacturing (22 percent)
- Accommodations (24 percent)
- Eating and drinking places (26 percent)

We did not reduce employee compensation or business owners' income in the industry scenario. We also did not account for any substitution of immigrant workers with other workers. If other workers were substituted for immigrant labor, then the drop in GDP would be lower than that stated. However, the limited evidence from other states suggests that when immigrants leave the area, agricultural employers have a

74 MIG, Inc., "IMPLAN System."

very difficult time finding substitute workers.[75]

We ran a second, simultaneous scenario in which the compensation of immigrant employees was withdrawn from the local economy via declines in household income. In this scenario we subtracted the amount of immigrant employee compensation in the four sectors from total household income in the county after adjusting for payroll taxes, remittances, and income from immigrants in-commuting from other jurisdictions. The steps we took to calculate the amount of household income to withdraw were:

- We estimated immigrant employee compensation in the four sectors to be $245 million.
- We reduced the $245 million figure by 14.1 percent to account for payroll taxes, to yield $210 million. Payroll taxes are 16 percent, and we assume that 88 percent of immigrants in the county pay them. (We multiplied our estimate of the unauthorized share of immigrants in the county — 33 percent — by an unauthorized noncompliance rate of 35 percent to get an overall immigrant noncompliance rate of 12 percent).
- Relying on the current literature, we reduced the $210 million figure by 11 percent for remittances, to yield $187 million.[76]
- We then reduced the $187 million figure by 39 percent to account for the income of immigrants who commute into Napa County from other counties, to yield $114 million; the 39 percent commuting rate is taken from our analysis of ACS data (see Table 8).

We reduced total household income by $114 million among households in the $50,000 to $75,000 income range. We chose the $50,000 to $75,000 income range because immigrant households had a median income of $51,000 in 2008-09, according to the ACS data. We also ran scenarios in which the $114 million in household income was reduced among households with incomes in the $35,000 to $50,000 range and in the $25,000 to $35,000 range but the results varied by only 1-2 percent.

The IMPLAN scenarios we ran produced changes in value added due to direct effects, indirect effects, and induced effects. *Value added* is the difference between total output and the costs of intermediate inputs (goods and services purchased from other industries or imported); it can be thought of as the amount of economic activity generated within Napa County for a given industry. Value added consists of employee compensation, taxes paid on production, and surplus (most of which is profit). *Direct effects* are the initial effects of a change in employment, sales, or employee compensation on a firm or industry (for instance changes within the sectors of vineyards, wineries, hotels, and restaurants). *Indirect effects* are the multiplier effects on other industries, as the directly affected industries buy goods and services from them (for instance, changes in vineyards affect agricultural supply firms that provide the equipment they use). *Induced effects* are the effects of changes in income on the rest of the economy as households buy goods and services locally (e.g., changes in the compensation of vineyard workers lead to changes in the amount of money they spend in local stores and restaurants).[77]

We set out below the estimated impacts of removing immigrant workers from the wine and related industries of employment based on our analysis using IMPLAN software and data for 2009. The impacts are broken down into direct, indirect and induced effects (see Appendix Table 1).

75 See for instance, Kirk Johnson, "Hiring Locally for Farm Work Is No Cure-All;" Steven Gray, "Convicts or Illegals: Georgia Hunts for Farmworkers As Tough Immigration Law Takes Hold;" McKissick and Kane, "An Evaluation of Direct and Indirect Economic Losses Incurred by Georgia Fruit and Vegetable Producers in Spring 2011—A Preliminary Data Analysis and Summary Working Paper."

76 Kasarda et al, *A Profile of Immigrants in Arkansas*; Kasarda and Johnson, *The Economic Impact of the Hispanic Population*; Bendixen and Associates, *Survey of Latin American Immigrants*.

77 MIG, Inc., "The controlled vocabulary of IMPLAN-specific items," http://implan.com/v4/index.php?option=com_glossary&task=list&glossid=13&letter=I, accessed October 20, 2011.

Table A-1. Direct, Indirect, and Induced Effects of Removing Immigrant Workers from the Napa County Wine Industry and Related Industries of Employment

	Employment	Value Added
Direct Effects	-6,000	-$97 million
Indirect Effects	-1,600	-$132 million
Induced Effects	-1,000	-$87 million
Total Effects	**-8,600**	**-$317 million**

See text for sources.

B. Calculation of Taxes

In our analysis, we compared major sources of state and local revenue with the main expenditures that have been documented for immigrants in the literature. Our calculations were conducted using survey data —ACS and US Current Population Survey (CPS) — as well as direct reports from California state government and Napa County local government sources, where possible. Our estimates are not exhaustive; they do not include every possible revenue source or expenditure, because some of these are more readily attributable to individuals than others. We focused on state and local revenues as well as state and local expenditures occurring in Napa County. We excluded federal revenues and expenditures from our analysis. Federal income taxes and payroll taxes (to support Medicare and Social Security) account for a majority of taxes paid by immigrant households, but these taxes go mostly to provide services dispersed across the country (such as defense and homeland security)—making attribution of federal expenditures to the local level problematic.

We accounted for the three primary sources of revenues from individuals at the state and local level: income taxes, sales taxes, and property taxes. The last two available years of ACS data (2008-09) were used for these estimations; CPS data were also employed to generate estimates for income taxes. We calculated all taxes at the household level because the ACS data do not allow us to create smaller family-based tax units.

Our estimates are conservative in some respects because they do not include taxes paid by immigrant-owned businesses, other businesses that employ immigrants, or those taxes indirectly generated in the economy through the spending of immigrants that we modeled in our economic impact analysis. We also exclude any sales taxes paid by immigrants who work in Napa County but live elsewhere. We include only those taxes directly paid by immigrant households residing in the county.

Income taxes. CPS includes a variable for state income tax liability, which is imputed based on household income, size, homeownership, and other factors. We used the CPS imputation of state income tax liability (before credits) to generate estimates of total taxes paid, average taxes paid, and the average share of household income paid in taxes, for households in California in the following categories of total household income:[78]

- Less than $30,000 (0.1 percent of total income paid in taxes)
- $30,000 to $60,000 (1.1 percent)
- $60,000 to $90,000 (1.8 percent)
- $90,000 to $120,000 (2.7 percent)
- $120,000 to $150,000 (3.7 percent)
- $150,000 to $180,000 (4.5 percent)
- $180,000 and higher (5.4 percent)

78 Households with zero or negative total household income were excluded.

California has a progressive state income tax, and our estimates of the percentage of income paid in taxes rose across each of these categories. We did not model the effects of the Earned Income Tax Credit (EITC) at the state level.

We then applied the state income tax rates generated from the statewide analysis of the CPS to the data for Napa County in the ACS.[79] We applied these tax rates to the household income categories listed above, and estimated a total of $150 million in personal income tax collected from Napa County households, averaging 2008-09. This total was revised upward to reflect the total in state personal income taxes actually paid in Napa County in tax year 2008: $187 million.[80] The lower total in our ACS analysis than the reported tax data may be due to underreporting of household income in the survey.

Immigrants accounted for 20.5 percent of all income tax revenue, or $38.4 million — averaging 2008-09. The share of income taxes paid by immigrant households was lower than their share of households (25.6 percent) because immigrant households have lower incomes than native-born households in Napa County.

We assumed that 12 percent of all immigrant households did not pay any income taxes at all. The estimate of 35 percent noncompliance in income tax payment for the unauthorized was multiplied by 33 percent, our estimate of the share of immigrants in Napa County that are unauthorized.[81] The result is an estimate of 12 percent noncompliance in income tax payments for immigrants overall. We applied this 12 percent to the bottom of the household income distribution, assuming that those unauthorized immigrants in informal jobs were the least well paid.

We varied our assumption of unauthorized immigrants' noncompliance with income taxes from 15 percent to 55 percent, based on various studies of taxes paid by this population.[82] Varying noncompliance rates made little difference in our estimates because the average incomes of immigrants in the county are comparatively low, and at the bottom end of the distribution in their incomes, the total paid in taxes is very small.

Sales taxes. Neither ACS nor CPS includes a variable for sales taxes. Sales taxes are levied on certain goods and services — merchandise in stores, gasoline, restaurant meals, for instance — but not others. It is necessary to make assumptions about the spending patterns of households in terms of income spent on taxable goods and services, versus income saved and spent on items which do not carry a sales tax. A previous study calculated the share of income devoted to taxable consumption in California, after income and payroll taxes as well as housing costs are subtracted.[83] We drew on this study's methodology and estimated the share of taxable consumption for total household income categories as follows:

- Less than $12,300 (244 percent)
- $12,300 to $26,000 (60 percent)

79 The sample size for Napa County was too small to conduct the county-level analysis using CPS.

80 California State Franchise Tax Board (FTB), "Table B-6, Personal Income Tax Statistics: Comparison by County," *Tax Year 2008, 2009 Annual Report—Statistical Appendix Tables* (Sacramento: FTB, 2009) www.ftb.ca.gov/aboutFTB/Tax_Statistics/2009.shtml, accessed May 1, 2011.

81 This estimate of 35 percent noncompliance with income and payroll taxes by unauthorized immigrants has been used in Kasarda et al, *A Profile of Immigrants in Arkansas*; Kasarda and Johnson, *The Economic Impact of the Hispanic Population*; and Clark et al, *Fiscal Impacts of Undocumented Aliens*.

82 Clark et al, *Fiscal Impacts of Undocumented Aliens* used an estimate of 55 percent noncompliance with income and payroll taxes by unauthorized immigrants. Kasarda et al, *A Profile of Immigrants in Arkansas* and Kasarda and Johnson, *The Economic Impact of the Hispanic Population* used an estimate of 35 percent noncompliance. The noncompliance estimate was 15 percent in Laura E. Hill, Magnus Lofstrom, and Joseph M. Hayes, *Immigrant Legalization: Assessing the Labor Market Effects* (San Francisco: Public Policy Institute of California, 2010), www.ppic.org/main/publication.asp?i=869.

83 The Brookings Institution is using this methodology in a current study of taxes paid by immigrants nationally, and it is similar to a methodology used in Michael S. Clune, "The Fiscal Impacts of Immigrants: A California Case Study," 120-82 in J.P. Smith and B. Edmonston, eds., *The Immigration Debate: Studies on the Economic, Demographic, and Fiscal Effects of Immigration* (Washington, DC: National Academy Press, 1998). The pattern of taxable consumption by total income for households in California was taken from Steven M. Scheffrin and Mari Dresch, *Estimating the Tax Burden in California* (Berkeley, CA: University of California and State of California, California Policy Seminar, 1995): 20 (Table 6), www.cotce.ca.gov/documents/documents/EstimatingTaxBurdenCalifornia.pdf, accessed May 18, 2011.

- $26,000 to $48,600 (43 percent)
- $48,600 to $70,400 (41 percent)
- $70,400 to $94,400 (31 percent)
- $94,400 to $130,500 (30 percent)
- $130,500 to $167,500 (25 percent)
- $167,500 to $254,400 (23 percent)
- $254,400 or over (23 percent)

The proportion of income that is devoted to taxable consumption falls with increasing income, because higher-income households devote more of their incomes to savings.[84] The very lowest income households spend much more than their total income on consumption, due to the high cost of basic necessities, thereby incurring significant debt. The lowest income households often receive benefits such as food stamps and health insurance coverage that are not counted toward their total income but generate spending in the local community.

Using this methodology and averaging data for 2008-09, we calculated a total taxable consumption of $1.32 billion in Napa County. This amount was adjusted upwards to $2.37 billion to reflect the taxable sales of all outlets in California, as reported to the State Board of Equalization.[85]

We calculated taxable consumption for all households and then multiplied taxable income by 8.75 percent — the sales and use tax rate for Napa County on July 1, 2009.[86] This generated a total of $207 million in sales and use tax revenue, of which 21.1 percent ($43.6 million) was contributed by immigrant households. Immigrant households paid a lower share of sales taxes than their proportion of all households (25.6 percent) due to their lower disposable income and because they sent some money to their origin countries as remittances.

Remittances comprise an element of savings that is not included in the model we adopted for computing taxable consumption. To account for remittances, we reduced the taxable consumption of all immigrant households by 11 percent.[87]

Property taxes. ACS includes a variable for the amount of property taxes paid by homeowners. Using this variable, as directly reported by ACS respondents, we calculated that Napa County homeowners paid a total of $114 million in property taxes, averaging 2008 and 2009. Immigrants paid 22.5 percent of these taxes, above their share of all households that own homes (20 percent). Immigrant homeowners may pay higher property taxes on average because they bought their homes more recently than natives, and Proposition 13's limits on annual increases in assessed value benefit long-term homeowners more than recent buyers.

The ACS data do not, however, include a property tax variable for renters, who comprise a relatively high share of immigrant households. For renters, we constructed a property tax variable based on the assumption that landlords pass on their property taxes to their tenants. First we multiplied the monthly rent reported in ACS by 12 in order to annualize it. Then we divided the annualized rent by two, assuming half the rent goes to upkeep. We took this figure and multiplied it by 8.5 percent — using an assumption based

84 Karen E. Dynan, Jonathan Skinner, and Stephen P. Zeldes, "Do the Rich Save More?" *Journal of Political Economy* 112, no. 2 (2004): 397-444, www.dartmouth.edu/~jskinner/documents/DynanKEDotheRich.pdf.

85 California State Board of Equalization (SBE), "Table 20—State Sales and Use Tax Statistics, By County, 2008-2009," *2008-2009 Annual Report – Statistical Appendix Table* (Sacramento: SBE, 2009), www.boe.ca.gov/annual/statindex0809.htm, accessed May 1, 2011.

86 SBE, "Table 23b—Sales and Use Tax Rates, By County, On July 1, 2009," *2008-2009 Annual Report – Statistical Appendix Table*, accessed May 1, 2011.

87 Kasarda et al, *A Profile of Immigrants in Arkansas*; Kasarda and Johnson, *The Economic Impact of the Hispanic Population*; Bendixen and Associates, *Survey of Latin American Immigrants*.

on other studies of tax payments that assume an 8.5 percent annual capitalization value for property. In other words, landlords pay an amount equivalent to 8.5 percent of the value of their property each year on the mortgage and property taxes, using income derived from rent.[88] Using this conversion we estimated the value of property rented by all renting households in Napa County. We applied a tax rate of 1.1 percent to the estimated value of rented property, and generated a total of $15 million in property taxes paid by renters, averaging 2008 and 2009.[89] Immigrant households paid 31.8 percent of all property taxes paid by renters, just below their proportion of all renting households (33 percent).

Taken together, the total property tax paid by all homeowners (as reported in the ACS) and renters (as imputed using the methods described above) was $129 million in 2008-09. This estimate amounts to 45.1 percent of the total of $286 million in property taxes that was collected in Napa County in FY 2008-09.[90] We adjusted the total upward to $161 million, the total amount of property taxes paid on an assessed value of $14.7 billion in urban residential properties and rural properties with single-family homes but no commercial establishments (after exemptions).[91] Immigrant households accounted for 21.4 percent of this total, or $34.6 million in residential property taxes.

C. Calculation of Expenditures

Calculation of expenditures on immigrants and their families is somewhat more straightforward than calculation of taxes, and does not require use of ACS survey data. In keeping with the literature, we focused on three major expenditures: public K-12 education, public health and assistance, and incarceration. These are areas in which "hard numbers" of immigrants and/or Latinos in these institutions or using these services are available. For local "general government" expenditures, we multiplied total expenditures by the share of immigrants in the general population — 21 percent in the county and slightly higher in most incorporated areas.

Public K-12 education. To calculate public K-12 education expenditures in Napa County, we multiplied per-pupil costs in each public school district by the share of children of immigrants in that district. We first obtained data on per-pupil costs during the 2008-09 school year from the California Department of Education.[92] We subtracted federal revenues from total expenditures in order to limit the analysis to the costs of education paid from state and local revenues.[93]

We then obtained 2008-09 enrollment figures for Latinos and non-Latinos in each district.[94] Overall in 2008-09, 46 percent of students in Napa County were Latino. We multiplied the number of Latino students by the share of Latinos with immigrant parents, and conducted the same calculation for non-Latino students.[95] The share of students with immigrant parents was slightly higher than the share of Latino students (48 versus 46 percent), mostly due to the presence of a significant population of children with Filipino immigrant parents in the Napa Unified School District. The estimated share of children of immigrants ranged from 61 percent in Calistoga Unified School District to 44 percent in Howell Mountain Elementary District.

88 The methodology for estimating property taxes paid by renters is taken from Capps, et al., *Civic Contributions*; Passel and Clark, *Immigrants in New York*.

89 The property tax rate we used was taken from SBE, "Table 14—2008-09 General Property Tax Levies as Compiled for Computation of the Average Tax Rate," *2008-2009 Annual Report – Statistical Appendix Table*.

90 Total property taxes collected in 2008-09 were taken from SBE, "Table 14."

91 The total amount of property taxes collected was $285 million on an assessed value of $25.9 billion. The residential share of the total was 56.5 percent ($161 million out of $285 million). These figures were provided by the Napa County Assessor-Recorder-County Clerk from the county's 2008-09 Real Property Tax Roll.

92 California Department of Education (CDE), "Financial Reports for District: General Fund Expenditures by Activity, Fiscal Year 2008-09," Educational Data Partnership, www.ed-data.k12.ca.us/welcome.aspx, accessed May 8, 2011.

93 CDE, "Financial Reports for District: General Fund Revenues by Source, Fiscal Year 2008-09," accessed May 8, 2011.

94 CDE, "Enrollment by Ethnicity for 2008-09: County Enrollment by Ethnicity (with district data), 2008-09, County 28-Napa," Dataquest, http://dq.cde.ca.gov/dataquest/, accessed May 9, 2011.

95 We did not conduct this calculation separately for Asian students due to small sample size in the ACS.

When we multiplied our estimates for state and local per-pupil expenditures by the share of children with immigrant parents in each district, we generated a total estimate of $142 million in public K-12 education expenditures, with 48 percent attributable to children of immigrants (see Appendix Table 2). These estimates assume that all students are equally costly to educate; however historically, California has spent an estimated 13 percent more on each ELL student than the average student. During 2008-09, California did not provide additional funding for ELL students on a per-student basis, but a recent report by the California Legislative Analyst's Office estimates that the state was spending approximately $750 per ELL student.[96]

Using 2008-09 ACS data we estimated that 94 percent of English language learners in Napa County were children of immigrants. There were approximately 4,700 ELL students in the county during the 2008-09, and we estimated that 4,400 of these (94 percent) were children of immigrants.[97] We multiplied supplemental state spending of $750 per ELL students by 4,400 ELL students, yielding approximately $3.3 million in supplemental state spending for ELL children of immigrants in 2008-09. This figure was subtracted from our total estimate of public K-12 education expenditures and allocated entirely to children of immigrants, raising expenditures on children of immigrants from $69 million to $71 million, and lowering expenditures on children of natives from $73 million to $72 million (see Table 13 in the main text of the report).

Table A-2. Detailed Estimates of Public K-12 Education Expenditures for Children of Immigrants and Children of Natives, Napa County, 2008-09 School Year

	Expenditures ($ thousands)			
District	Total	Children of Immigrants	Children of Natives	Immigrant Share
Napa Valley Unified	$108,196	$51,212	$56,984	47.3%
Saint Helena Unified	$21,348	$10,212	$11,136	47.8%
Calistoga Unified	$10,331	$6,326	$4,005	61.2%
Howell Mountain Elementary	$1,576	$698	$878	44.3%
Pope Valley Elementary	$1,031	$563	$468	54.6%
Total	**$142,482**	**$69,012**	**$73,470**	**48.4%**

See text for sources.

We also recalculated the costs of public education attributable to immigrants based on the share of children who were themselves immigrants; in this scenario we attributed the costs of all children who are US-born to the native-born group. Countywide, 79 percent of children of immigrants were US-born. Using this scenario, the cost of educating immigrant children was only 10.4 percent of the total, or $14.8 million before accounting for state ELL expenditures (see Appendix Table 3). There were approximately 1,500 ELL students who were first generation (32 percent of the total of 4,700), and we estimated that immigrant students accounted for $1.1 million in state ELL spending in Napa County. When adjusted for ELL spending, total K-12 expenditures on immigrant children rose to $15.5 million (see Table 13).

96 California Legislative Analyst's Office, "Analysis of the 2007-08 Budget Bill: Education, English Learners," 2007, www.lao.ca.gov/analysis_2007/education/ed_11_anl07.aspx .

97 Napa County Office of Education, *Napa County Education Review.*

Table A-3. Detailed Estimates of Public K-12 Education Expenditures for Immigrant and US-Born Children, Napa County, 2008-09 School Year

District	Expenditures ($ thousands)			
	Total	Immigrant Children	US-Born Children	Immigrant Share
Napa Valley Unified	$108,196	$10,772	$97,424	10.0%
Saint Helena Unified	$21,348	$2,168	$19,180	10.2%
Calistoga Unified	$10,331	$1,591	$8,740	15.4%
Howell Mountain Elementary	$1,576	$138	$1,438	8.8%
Pope Valley Elementary	$1,031	$132	$899	12.8%
Total	**$ 142,482**	**$ 14,801**	**$ 127,681**	**10.4%**

See text for sources.

Public health and public assistance. We obtained public health and assistance expenditure data from three sources: Napa County Department of Health and Human Services (NCDHHS), Queen of Valley Hospital (QVC), and Clinic Olé. From NCDHHS we obtained data on total benefits spending and administrative costs for the following social services programs in 2008 and 2009:

- CalWorks/Temporary Assistance for Needy Families (cash welfare for families)
- General Assistance (cash welfare for individuals)
- CalFresh/Supplemental Nutrition Assistance Program (food assistance for families and individuals)

We also obtained administrative costs for public health insurance programs operated through the county such as Medi-Cal (Medicaid), Healthy Families (Children's Health Insurance Program), and the County Medical Services Program. NCDHHS administers eligibility for these medical programs, but the costs are incurred by health providers.

The programs administered by NCDHHS are supported by a mixture of federal, state, and local funding. For each program we subtracted federal program costs from the total using published federal matching rates. The rates range from 0 percent in General Assistance (a California only program) to 100 percent for benefit costs in CalFresh (an entirely federally funded program). We assume a matching rate of 50 percent in CalWorks, based on total state versus federal spending in 2008-09.[98]

NCDHHS provided data for us on the share of benefit recipients who are immigrants in each of these programs, as well as total program expenditures. State and local expenditures for these NCDHSS programs averaged $6.9 million in 2008-09, with immigrants accounted for 15.2 percent of this total (see Appendix Table 4).

We contacted the two main health providers for publicly insured and uninsured people in Napa County: QVH and Clinic Olé. QVH provided data on total health care spending on patients with various forms of public coverage in 2008 and 2009. QVH also provided data on the number of patients in each coverage category who spoke a language other than English (predominantly Spanish). In 2009, the share of non-English speaking patients ranged from 18 to 97 percent depending on the form of coverage, with an average of 32 percent for all QVH patients. We assumed that all non-English speakers were immigrants and that 4 percent of English speakers were also immigrants (based on the foreign-born share of those speaking English at home in the ACS data).

98 US Department of Health and Human Services (USDHHS), "Table F-2 Combined Federal, State Funds with ARRA Fund Expended in FY 2009," TANF Financial Data, www.acf.hhs.gov/programs/ofs/data/2009/tanf_2009.html, accessed May 8, 2011; California Department of Social Services (CDSS), *November 2010 Subvention* (Sacramento: SDSS Administration Division, Estimates Branch, 2010): 225, www.cdss.ca.gov/cdssweb/entres/localassistanceest/Jan11/EstimatesMethodologies.pdf, accessed May 9, 2011.

We subtracted the federal matches for public health insurance programs from the spending data provided by QVH. County Medical Services Program is entirely state and county-funded. The federal matching rate for Medi-Cal was 50 percent in 2008 and 62 percent in 2009.[99] The matching rate for Healthy Families was 65 percent in both years.[100] After subtracting the federal matches, we estimated that a total of $21.2 million was spent on public coverage of patients at the hospital (averaging 2008 and 2009), with 32.9 percent spent on immigrants.

QVH does not rely on public funding to cover the uninsured. Like other hospitals, QVH uses revenue from patients with public and private insurance to cover the uninsured. The hospital also receives significant support from the Napa Valley Vintners/Auction Napa Valley and other philanthropic sources.

Clinic Olé, the other major source of health care for the uninsured and those with public coverage, receives a majority of its funding through the Medicaid and Children's Health Insurance Programs. We subtracted the federal matches for these programs, as described above, when calculating state and local health care expenditures at Clinic Olé.

As a federally qualified health center, Clinic Olé receives a large federal grant every year to cover health care infrastructure and care for the uninsured, as well as several smaller state grants for targeted health services. Clinic Olé also received grants from the Napa Valley Vintners/Auction Napa Valley and other private sources. We included the state but not the federal or private grant money in our calculations.

Clinic Olé provided us with data on the share of Latino patients. When multiplied by the share of Latinos who are immigrants, we estimated that a total of 41 percent of Clinic Olé clients in 2008 and 44 percent in 2009 were immigrants.[101] Total state and local government spending for Clinic Olé averaged $2.2 million in 2008 and 2009, with an estimated 42.7 percent spent on immigrants.

Taken together, these three sources account for $8.95 million in health and public assistance spending on immigrants, out of $30.3 million in total expenditures.

99 Kaiser Family Foundation (KFF), "Federal Medical Assistance Percentage (FMAP) for Medicaid with American Recovery and Reinvestment Act (ARRA) Adjustments, FY 2010," www.statehealthfacts.org/comparemaptable.jsp?ind=695&cat=4, accessed May 8, 2011.

100 KFF, "Enhanced Federal Medical Assistance Percentage (FMAP) for the Children's Health Insurance Program (CHIP)," www.statehealthfacts.org/comparetable.jsp?ind=239&cat=4, accessed May 8, 2011.

101 These data along with financial data are provided on Clinic Ole's annual federal report. See USDHHS, *Center/Grantee Report: Community Health Clinic Ole* (Washington, DC: USDHHS, Uniform Data System report, January 1, 2008 to December 31, 2008, and January 1, 2009 to December 31, 2009).

Table A-4. Detailed Estimates of Public Health and Assistance Expenditures, Napa County, 2008-09 Averaged

	Expenditures ($ thousands)			
Provider	Total	Immigrants	US-Born	Immigrant Share
Napa County HHS	$6,934	$1,051	$5,883	21.80%
Clinic Ole	$2,174	$928	$1,246	42.70%
Queen of Valley Hospital	$21,217	$6,972	$14,245	32.90%
Total	**$30,325**	**$8,951**	**$21,374**	**29.70%**

See text for sources.

Incarceration. We also calculated the cost of incarceration for immigrants and natives separately The Napa County Department of Corrections provided us with figures on the number of immigrant inmates, their average days of stay, and the average cost per night of incarceration for 2008 and 2009. Averaging these two years, there were 1,160 foreign-born inmates, or 23.9 percent of the total of 4,843 inmates. Although immigrants are incarcerated at a slightly higher rate than natives in Napa County, this is likely because immigrants in the county are younger than natives and therefore at higher risk for involvement with the criminal justice system. Research has shown that at the national level, immigrants are incarcerated at substantially lower rates than natives, when adjusting for age and gender.[102]

Total costs of incarceration averaged $11.4 million in 2008-09 (see Appendix Table 5). But the federal government reimbursed Napa County about $450,000 in each of these years for incarceration of immigrants, through the State Criminal Alien Assistance Program. Due to federal reimbursement, the immigrant share of incarceration costs was lower than the foreign-born share of the total inmate population (20.8 versus 23.9 percent). We estimate immigrants accounted for $2.3 million out of state and local incarceration expenditures of $10.9 million in 2008-09.

General government. Finally, we attributed local general government expenditures to immigrants according to their shares of the population in the county overall and in each incorporated area. We obtained total expenditures for these jurisdictions from their Comprehensive Annual Fiscal Reports for the fiscal year ending June 30, 2009. We subtracted the health and public assistance spending we enumerated at the Health and Human Services Department as well as incarceration spending, from total Napa County expenditures. We did not subtract any other federal grants, and so our expenditures here may be slight over-estimated. Following are estimates of all expenditures along with the immigrant share of costs for general government in each jurisdiction:

102 Kristin F. Butcher and Anne Morrison Piehl, "Why are Immigrants' Incarceration Rates So Low? Evidence on Selective Immigration, Deterrence, and Deportation" (working paper 13229, National Bureau of Economic Research, July 2007), www.nber.org/papers/w13229.pdf; Rubén G. Rumbaut and Walter A. Ewing, *The Myth of Immigrant Criminality and the Paradox of Assimilation: Incarceration Rates Among Native and Foreign-born Men* (Washington, DC: Immigration Policy Center, 2007), www.americanimmigrationcouncil.org/special-reports/myth-immigrant-criminality-and-paradox-assimilation; John Hagan and Alberto Palloni, "Sociological Criminology and the Mythology of Hispanic Immigration and Crime," *Social Problems* 46, no.4 (1999): 617-32.

Table A-5. Detailed Estimates of General Government Expenditures, Napa County, FY 2008-09

	Expenditures ($ thousands)			
Jurisdiction	Total	Immigrants	US-Born	Immigrant Share
Napa County	$222,969	$46,823	$176,145	21%
City of Napa	$131,782	$30,310	$101,472	23%
American Canyon	$30,000	$8,100	$21,900	27%
City of Calistoga	$13,500	$4,455	$9,045	33%
City of St. Helena	$17,980	$4,315	$13,665	24%
Town of Yountville	$8,880	$533	$8,347	6%
Total	**$425,111**	**$94,536**	**$330,575**	**22%**

See text for sources.

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