## The Inland Empire in 2015

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PPIC

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## Summary

Riverside and San Bernardino Counties together constitute California's Inland Empire, a vast region distinguished by tremendous growth in recent decades. Local policymakers are working to plan for future growth and, indeed, to shape growth. This report seeks to inform public investment and growth policy by broadly describing the direction of growth in the region. We use recent trends to develop projections for 2015 and to characterize the population, the workforce, and political participation.

We project that the coming decade will be a critical time for the Inland Empire as its population continues to expand and as the region increasingly plays a dual economic role-both creating new jobs locally and providing housing to residents who commute to jobs in other regions. Our projections indicate that the Inland Empire's population will grow from 3.9 million in 2005 to 4.9 million by 2015. Growth during that period will be equivalent to five times the current population of the city of San Bernardino. With recent and impending declines in new housing construction, annual growth rates will be lower than in recent years. Nonetheless, the Inland Empire will remain the locus of growth in Southern California. Growth rates will be robust in all of the subregions of the Inland Empire, but especially in the San Jacinto Valley, where the population will increase more than 50 percent between 2005 and 2015.

The primary driver of this population growth has been and will continue to be migration, primarily local. Almost all of the very large flows of migrants into the Inland Empire originate in coastal Southern California. Those flows have increased in recent years, with large and notable gains in the number of Inland Empire residents arriving from Orange and San Diego Counties. Los Angeles County, with its ten million residents, remains the primary origin of migrants to San Bernardino County, and Riverside County gains large numbers of migrants from Orange and San Diego Counties as well (Figure S.1).

The Inland Empire gains relatively small numbers of international migrants directly from abroad, and loses small numbers of migrants to other states. However, reflecting the demographic changes of their counties of origin, recent migrants are more likely to be Latino or Asian than in the


SOURCES: Authors' estimates based on Internal Revenue Service tax return records, California Department of Finance estimates, and the 2005 and 2006 American Community Surveys.

Figure S.1-Net Migration Flows Between Southern California Counties, 2000-2006
past, and large numbers of foreign-born individuals move to the Inland Empire from coastal counties.

Recent migrants are slightly better educated than previous migrants or current residents. However, on a net basis, the Inland Empire attracts more migrants without a high school diploma than college graduates.

Migrants are attracted to the Inland Empire because of housing and strong job growth. Not only is Inland Empire housing less expensive than in the coastal regions, the relative abundance of new and large single family homes has drawn many coastal residents who often cannot find such housing in the more dense and built-up coastal counties. Substantial shares of the region's new residents are renters, who find less-expensive rents in the Inland Empire. Job growth in the Inland Empire has fueled some of its growth, but the number of residents who commute to coastal county jobs continues to increase.

We find that the Latino and Asian populations will continue to experience strong population growth (Table S.1). By 2015, Latinos will constitute a majority population in the Inland Empire. Latinos will be the new majority in many of the most populated subregions as well, including the Coachella Valley, Northwestern Riverside, Western San Bernardino, and Eastern San Bernardino. Whites will remain the majority population in the San Jacinto Valley and Southwestern Riverside areas. In the High Desert area, no racial or ethnic group will constitute a majority.

Like the rest of the nation, the Inland Empire is aging. The number of residents ages 55-69 is expected to more than double between 2000 and 2015 (Figure S.2). The number of young adults ages 20-34 will also increase substantially (by $70 \%$ ) through continued migration and because, as in the rest of the nation, the population bulge representing the children of baby boomers will reach these ages. In contrast to most other parts of California, the number of young children in the Inland Empire will continue to grow, albeit at a more modest pace than in recent years. Continued growth in the school-age population reflects the region's attractiveness to young families, in large part because of relatively inexpensive housing.

These changes in age patterns are projected to be broadly similar for each subregion. However, growth in the young adult population is expected to be particularly strong in the San Jacinto Valley, so much so that the share of residents ages 65 and older there will actually decline. In contrast, in the

Table S. 1
Projected Percentage Ethnic Distribution in the Inland Empire, 2000, 2005, and 2015

|  | 2000 | 2005 | 2015 |
| :--- | ---: | ---: | ---: |
| White | 47.2 | 41.9 | 32.1 |
| Latino | 38.4 | 43.1 | 51.2 |
| Asian | 4.6 | 5.2 | 6.6 |
| African American | 7.6 | 7.4 | 7.2 |
| American Indian | 0.6 | 0.6 | 0.5 |
| Multiracial | 1.6 | 1.8 | 2.4 |

SOURCES: California Department of Finance estimates for July 1, 2000, and authors' projections for 2005 and 2015. NOTE: Asian includes Pacific Islanders.


SOURCES: California Department of Finance estimates for July 1, 2000, and authors' projections for 2005 and 2015.

Figure S.2-Population Projections for the Inland Empire, by Age Group, 2000, 2005, and 2015

High Desert and the Coachella Valley, the share of residents ages 65 and older is projected to increase.

We find that the educational attainment levels of the population will increase slightly between now and 2015, with an increase in the percentage of college graduates but little change in the percentage of adults who have not completed high school (Table S.2). These minor improvements will not be enough to bring the region's overall educational attainment up to the current level of the state as a whole.

Educational attainment differs substantially across subregions although the projected direction of changes is similar: Each subregion except Eastern San Bernardino is projected to see an increase in the share of adults with at least a bachelor's degree. Likewise, in each region except Eastern and Western San Bernardino, the share of residents who have not finished high school is expected to decline slightly.

Employment projections show that the Inland Empire economy is shifting to industries that hire workers with lower levels of education,

Table S. 2
Percentage Distribution of Educational Attainment Among Adults: Trends and Projections, 1990-2015

|  | Less Than High <br> School Diploma | High School <br> Diploma | Some <br> College | Bachelor's <br> Degree | Graduate <br> Degree |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Inland Empire |  |  |  |  |  |
| 2000 | 22 | 26 | 36 | 10 | 5 |
| 2005 | 24 | 24 | 35 | 11 | 6 |
| 2015 | 23 | 26 | 33 | 13 | 6 |
|  |  |  |  |  |  |
| 1990 | 22 | 29 | 28 | 15 | 6 |
| 2000 | 21 | California |  |  |  |
| 2005 | 22 | 19 | 33 | 17 | 9 |

SOURCES: Authors' calculations based on the 1990 and 2000 Censuses and projections for 2005 and 2015. State estimates for 2005 are based on the American Community Survey.
NOTES: The table includes adults ages 25-64. Columns may not sum to 100 percent because of rounding. See Appendix A for details of the projections method.
particularly administrative services. However, within several major industries, the recent trend has been toward hiring more workers with higher levels of education. If this trend continues, employment opportunities will shift slightly, with an increase in demand for more educated workers. The decline in the share of jobs for workers who have not completed high school coupled with the large supply of such workers suggests that the least-educated adults will face even more difficulties in the future labor market. In contrast, the region will have too few high school graduates relative to jobs. On the high end of the educational attainment spectrum, increases in the number of college graduates match up fairly well with employers' needs. However, in an ongoing challenge for the region, the share of adults with a college degree as well as the share of jobs that require a college degree will remain far lower than in the rest of the state.

Projections for political participation suggest an increase in naturalization rates among Latinos and Asians as these populations shift toward older and longer-term immigrants. Increased naturalization in conjunction with a growing share of second-generation adult immigrants
(citizens by birth) will lead to larger shares of citizens among Latinos and Asians. Despite this, we project that whites will constitute nearly half of all registered voters (Table S.3), although they make up only a little more than one-third of the adult population. Furthermore, among registered voters, the propensity to vote is highest for whites. Thus, whites will continue to make up a majority of voters.

The findings of this report suggest several challenges for the Inland Empire as it continues down a path of substantial growth. First, the region should seek to improve educational outcomes and training for its lowerskilled workers. For most of the subregions, this means improving high school graduation rates. Promoting education and workforce training will remain an important goal for the region because about one in four adults is expected to have less than a high school diploma in 2015. Ideally, the upgrading of workforce skills will go hand in hand with growth in jobs that require more skills and in better-paying jobs for workers with low skills. Finally, to help ensure that policies are broadly beneficial, efforts should be made to increase participation in the public decisions that will help shape the future of the region.

Table S. 3
Percentage Distribution of Registered Voters, by Race/Ethnicity, 2005 and 2015

|  | 2005 |  |  | 2015 |  |
| :--- | :---: | :---: | :---: | :---: | :---: |
|  | Adults | $\begin{array}{c}\text { Registered } \\ \text { Voters }\end{array}$ |  | Adults |  | \(\left.\begin{array}{c}Registered <br>

Voters\end{array}\right]\)

SOURCE: Authors' projections for 2005 and 2015.
NOTES: Asian includes Pacific Islanders. Columns may not sum to 100 percent because of rounding.

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## 1. Introduction

The Inland Empire of California—Riverside and San Bernardino Counties-is a vast region characterized by tremendous growth. In total area, the region covers more than one-sixth of California and is roughly equal in size to Virginia. Since 1990, the region's population has grown by more than 50 percent, a rate of growth twice that of the rest of California. At just over four million people, the Inland Empire's population is larger than that of Oregon. Employment in the region grew to nearly 1.2 million jobs with a rate of growth ( $57 \%$ ) that greatly exceeded that of the rest of the state ( $10 \%$ ). ${ }^{1}$

In the context of this tremendous growth and the trends that have shaped the region over recent decades, we ask, "Where is the region headed?" To answer that question, we develop population and economic projections for 2015 for the Inland Empire. Our focus is on people and the economy and we highlight economic, educational, and civic opportunities and challenges the region will face over the coming decade. Specifically, we address eight questions:

- How many people will be added to the Inland Empire's population between now and 2015?
- What are the underlying dynamics driving this growth?
- How is the population likely to change in terms of demographic characteristics?
- What will be the likely education levels of the adult population?
- How is the Inland Empire's economy changing?
- What labor force skills will the region's economy demand?
- How well do the projected needs of the labor force match the projected skills of the population?
- How well will voters represent the population?

[^0]The Inland Empire is a geographically diverse region. Elevations range from 228 feet below sea level at the Salton Sea to 11,502 feet above at Mt. San Gorgonio, Southern California's highest peak. Vast areas of the Inland Empire are lightly populated deserts or mountainous regions. The overwhelming majority of the region's population resides in the western reaches of both counties-areas that are close to the large urban conglomeration of coastal Southern California. But even within the urbanized areas, distinct subregions can be identified.

Having consulted with local officials and examined socioeconomic characteristics, we identify ten such subregions in this report (Figure 1.1). In defining subregions, we primarily considered combining contiguous cities and neighborhoods that had similar commuting patterns, jobs, and economic characteristics. Where possible, our analysis examines each


Figure 1.1-Map of the Inland Empire's Subregions
subregion separately. For the three subregions with fairly small populations, the Eastern Desert and the two mountain regions, our analysis is somewhat limited. Appendix Table B. 1 lists the incorporated cities and their populations for each subregion. ${ }^{2}$

The report is organized as follows. Chapter 2 provides a portrait of demographic and economic trends and conditions in the Inland Empire. Chapter 3 describes regional migration patterns, because migration is the most important factor driving population growth and change in this region. In Chapter 4, we develop the population projections including the age, race/ethnicity, and nativity (foreign-born status) of future Inland Empire residents. Chapter 5 examines workforce projections, looking first at the education levels of adults and then at the educational needs of the future labor market. Chapter 6 describes political participation in the region. Readers interested in data and methods are referred to the appendices.

[^1]
## 2. Demographic and Economic Context

California's Inland Empire is a region of astounding population growth. Since 1970, it has grown almost fourfold, a rate almost twice that of the rest of California and about 2.5 times that of the rest of the United States. Almost perennially, and at least since the 1950 s, the Inland Empire has been either the fastest-growing metropolitan area in the United States or one of the top two or three. By 2006, its population had surpassed four million people (Figure 2.1), larger than Oregon and 23 other states.

Not only has the Inland Empire experienced tremendous population growth, the ethnic composition of the region's population has also undergone dramatic transformations. As recently as 1990, over 60 percent of the region's residents were non-Hispanic whites. Today, no single race or ethnic group constitutes a majority of the region's population; Latinos are


SOURCE: Authors' calculations based on California Department of Finance estimates.

Figure 2.1—Total Population of the Inland Empire, 1970-2006
now the largest group (Figure 2.2). Moreover, the region has seen strong increases in the population of African Americans, a recent phenomenon attributable to large flows from Los Angeles County. That movement began in the 1980s and accelerated in the 1990s.

Indeed, migration has been the primary driver of population growth in the Inland Empire. From 1970 through 2006, migration directly accounted for 70 percent of the region's population growth. As discussed in the following chapter, the vast majority of migrants to the Inland Empire are domestic, from other parts of California and the United States, rather than international. Migration flows were especially large in the late 1980s and in the current decade, both periods of surging home prices and new housing construction.

Job growth has been strong, but the Inland Empire remains one of the largest sources of intercounty commuters in the United States. Among the 20 most populated counties in the United States, only two New York City boroughs (Queens and Brooklyn) had a higher share of workers commuting


SOURCES: Authors' calculations based on the 1990 Census, California Department of Finance estimates, and the 2006 American Community Survey.

Figure 2.2-Ethnic Composition of the Inland Empire and California, 1990 and 2006
out of the county. In 2006, 30 percent of San Bernardino County residents with a job commuted out of the county, and 29 percent of Riverside County workers did so. ${ }^{1}$ These percentages remain little changed since 1990. Of course, some intercounty commuters go from one Inland Empire county to another, but the large majority commute to a coastal county. In 2006, about 70 percent of San Bernardino out-of-county workers commuted to a coastal county and two-thirds of Riverside County out-of-county workers did so. Thus, although job growth internally has been strong, so has the increase in commuting out of the region. From 2000 to 2006, the number of workers commuting out of the region increased 30 percent, and the number of workers both living and working in the Inland Empire increased 38 percent. Riverside County saw especially strong growth both in the number of residents remaining in the county to work (with a $48 \%$ increase from 2000 to 2006) and in the number of workers commuting outside the county (43\%); in San Bernardino County, these increases were 28 percent and 23 percent, respectively. ${ }^{2}$

With rapid employment and population growth, poverty rates in the Inland Empire have declined since 2000, although average incomes and wages remain well below those in the rest of the state and nation. With poverty rates of 12.2 percent in Riverside and 13.7 percent in San Bernardino in 2006, the Inland Empire has poverty rates (13.0\%) similar to those of the state $(13.1 \%)$ and the nation ( $13.3 \%$ ). The region does have a substantial share of high-income families. However, at 19 percent, the share of Inland Empire households with annual incomes above $\$ 100,000$ is lower than the statewide share of 25 percent. ${ }^{3}$ Average household incomes are substantially lower in the Inland Empire ( $\$ 67,200$ in 2006) than in the state ( $\$ 77,400$ ). Riverside County tends to have slightly higher household incomes $(\$ 68,500)$ than San Bernardino County $(\$ 65,800)$. Of course,

[^2]lower housing costs, at least compared to coastal counties, help ameliorate some of the wage differential.

The Inland Empire's lower household incomes are primarily a consequence of lower-paying jobs in the region. In 2006, average annual wages of Inland Empire jobs $(\$ 36,924)$ were well below state $(\$ 48,027)$ and national $(\$ 41,991)$ averages. ${ }^{4}$ A ranking of annual wages in the 52 largest metropolitan areas in the United States (those with more than 500,000 jobs) places the Inland Empire 51st, ahead of only Oklahoma City, and well below California's other large metropolitan areas (Figure 2.3). Moreover as the population has grown, wages have fallen even further behind those in the rest of the nation; in 1969, Inland Empire jobs paid about the same as jobs in the rest of the nation, but by 2006, Inland Empire wages were 12 percent lower, despite some improvement earlier this decade (Figure 2.4). San Bernardino County jobs tend to pay slightly better than Riverside County's ( $\$ 37,445$ versus $\$ 36,378$ ). Riverside County's higher household incomes are due to more nonwage income as well as the higher incomes of residents who commute to higher-paying jobs in other counties, particularly the nearby coastal counties. Inland Empire residents who commute to coastal county jobs tend to have higher levels of education and earnings than residents who live and work in the Inland Empire.

## Subregion Descriptions

The vast majority of the Inland Empire's residents live in the western portion of the region, in areas adjacent to Los Angeles, Orange, and San Diego Counties and within commuting distance to those coastal counties. (Even the Eastern San Bernardino subregion is really in the western portion of the county.) In Riverside County, the Coachella Valley subregion is a notable exception, as is the High Desert in San Bernardino County. Both regions are some distance away from the coastal counties and contain sizable populations.

The three largest subregions-Western San Bernardino, Eastern San Bernardino, and Northwestern Riverside-lie on the western edge of the Inland Empire, bordered on the north by the San Gabriel and San

[^3]

SOURCE: Authors' calculations based on U.S. Bureau of Economic Analysis data for U.S. metropolitan areas with 500,000 or more jobs (U.S. Bureau of Economic Analysis, 2008).

Figure 2.3-Average Annual Earnings per Job, by Metropolitan Area, 2006


SOURCE: Authors' calculations based on U.S. Bureau of Economic Analysis (2008) data. NOTE: The U.S. average wage is normalized to a baseline of 100 for each year.

Figure 2.4-Wages in California's Largest Metropolitan Areas Relative to the U.S. Average Wage, 1969-2006

Bernardino Mountains and on the southwest by the Santa Ana Mountains. The subregions share a history of settlement spurred by the establishment of railroads (the Southern Pacific and the California Southern), irrigation systems from the surrounding mountains, and citrus agriculture (primarily navel and Valencia oranges). With ready access to rail transport, the first incorporated cities in each of these subregions-Ontario, San Bernardino, and Riverside, respectively-became centers of citrus and dairy farming and resort destinations for travelers seeking a warm, dry climate. In the early 20th century, the construction of the Pacific Electric Railroad and U.S. Route 66 allowed enhanced access to the rapidly growing city of Los Angeles, establishing the area as a crossroads between the West Coast and the rest of the country and providing new markets for its agricultural products and hospitality industries. Manufacturing industries also emerged in Fontana and Ontario. The nationwide postwar expansion of suburbs and the defense industry increased the population of these three subregions. However, an even greater influx began in the 1980s and continued in the

1990s, when residents of Los Angeles and Orange Counties moved east to escape high rents and real estate prices. The newly incorporated cities of Chino Hills, Yucaipa, and Moreno Valley have grown by 54 percent, 31 percent, and 25 percent, respectively, since 1995.

The San Jacinto Valley subregion in Riverside County, between the San Jacinto Mountains to the east and the Northwestern Riverside subregion to the west, followed a similar, if more protracted path. The San Gorgonio Pass attracted the attention of the U.S. government as a feasible route to the Pacific Ocean, and railroad tracks were laid shortly after its discovery in the mid-19th century. With a reliable water source from Lake Hemet on the San Jacinto River, the area became known for its horticulture (mainly apples, citrus, walnuts, and stone fruits) and for recreational resorts. In recent years, residential developers have begun to turn toward the San Jacinto Valley, and the population, including a sizable retiree contingent, has grown rapidly.

The Southwestern Riverside subregion constitutes the southwest corner of the Inland Empire. Characterized by a gentle, rolling topography, it lies between the Santa Ana Mountains (that separate it from Orange County) and the San Diego border to the south. Like the San Jacinto Valley region to the northeast, it has grown dramatically in its very recent history.

Lake Elsinore was incorporated in the late 19th century, but the rest of the subregion, used largely for sheep and cattle ranching, saw slow population growth. The sale of ranchland to developers in the 1960 s sparked a boom in residential construction that intensified in the 1990 s when families from nearby San Diego and Orange Counties began moving in to take advantage of relatively affordable housing prices. Such newly incorporated cities as Murrieta and Temecula have seen some of the Inland Empire's most dramatic population increases during the past decade.

The High Desert is another example of a traditionally slow-growing area experiencing a recent and dramatic population boom. The subregion stretches eastward from the western border of San Bernardino County, north of the San Gabriel and San Bernardino Mountains, to encompass part of the Mojave Desert. Its cities are typically situated at altitudes between 2,000 and 3,000 feet, and nearby peaks may reach 6,000 feet. Modern settlement in the High Desert developed from silver and borax mining in the Mojave Desert, the subsequent construction of
transportation infrastructure, and, more recently, the establishment of several military installations nearby. The High Desert's northernmost city, Barstow, was established upon the arrival of the Santa Fe Railroad and was the first to incorporate, in 1947, following the construction of Route 66. The subregion's phenomenal recent population growth, however, owes mostly to the newer cities along the Mojave River-Apple Valley, Hesperia, and Victorville have grown by 26 percent, 32 percent, and 48 percent, respectively, since 1995.

The Coachella Valley runs northwest to southeast, from the San Gorgonio Pass to the Salton Sea in Riverside County. The San Jacinto and Santa Rosa Mountains lie to the southwest and the Little San Bernardino Mountains to the northeast. In 1926, the construction of Highway 99, connecting the valley with Los Angeles and later augmented by Interstate 10 , helped establish the region as a center of agriculture and tourism.
More recently, several of the area's American Indian tribes have established high-end casinos and resorts to draw people to the valley for recreation. But many others are coming to stay-signs for new home construction are nearly as prevalent as in the Southwestern Riverside and High Desert regions-and the Coachella Valley's population has mushroomed, led by growth in the oldest cities (such as Indio, with $54 \%$ growth since 1995) as well as in the newest (such as La Quinta, with 118\%).

Using data from the 2000 Census and our own estimates for 2005, we see a few patterns emerge that are consistent with the type and timing of growth in each of these subregions.

Northwestern Riverside and Western San Bernardino are the most populated subregions, each with over 800,000 residents (Table 2.1). Along with the subregion experiencing the highest growth rates-Southwestern Riverside-these areas are home to many of the Inland Empire's coastal county commuters. All of the more populous subregions experienced growth rates much greater than that of the state during this decade ( $1.3 \%$ per year for the rest of the state). Eastern San Bernardino has grown less rapidly than the rest of the Inland Empire and was surpassed in population by the Western San Bernardino subregion during the 1990s.

In addition to population growth rates, the subregions differ substantially across other dimensions as well. One of these is ethnicity.
Table 2.1
Populations of the Inland Empire's Subregions, 1990, 2000, and 2005

|  |  |  |  | Average Annual <br> Percentage Change | Average Annual <br> Absolute Change |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: |

Only three subregions-the San Jacinto Valley, Southwestern Riverside, and the High Desert-had a majority non-Hispanic white population, according to the 2000 Census (each over $60 \%$; see Table 2.2). In the other four subregions, no ethnic group constituted a majority of the population. Latinos were a near majority of the population in the Coachella Valley and in Western San Bernardino and were the largest ethnic group in Eastern San Bernardino. African American shares were greatest in Eastern San Bernardino. Asians constituted less than 10 percent of the total of every subregion, with the highest Asian share in Western San Bernardino. Shares of multiracial and American Indian persons (not shown) were not more than 3 percent and 2 percent, respectively, in each subregion.

The Coachella Valley and Western San Bernardino had the highest share of foreign-born residents in 2000, at 26 percent and 24 percent, respectively, putting them on a par with the state as a whole (Table 2.2). Only 10 percent of the population in the High Desert, San Jacinto Valley, and Southwestern Riverside subregions was foreign-born, compared to about one-fifth in Northwestern Riverside, Eastern San Bernardino, and the Inland Empire as a whole.

Table 2.2
Percentage Distribution of Residents in the Inland Empire's Subregions, by Race/Ethnicity and Nativity, 2000

|  | White | Latino | African <br> American | Asian or <br> Pacific <br> Islander | ForeignBorn |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Coachella Valley | 48 | 46 | 2 | 2 | 27 |
| Northwestern Riverside | 43 | 39 | 9 | 5 | 20 |
| San Jacinto Valley | 66 | 25 | 3 | 2 | 12 |
| Southwestern Riverside | 69 | 22 | 3 | 3 | 11 |
| High Desert | 62 | 25 | 7 | 2 | 9 |
| Western San Bernardino | 36 | 47 | 8 | 7 | 24 |
| Eastern San Bernardino | 38 | 42 | 12 | 5 | 19 |
| Inland Empire | 47 | 38 | 7 | 4 | 19 |
| California | 47 | 32 | 6 | 11 | 26 |

SOURCE: Authors' calculations based on the 2000 Census.

Educational attainment levels differ across the subregions as well but primarily at the upper end of the distribution rather than at the lower end (Table 2.3). In all but one of the Inland Empire's seven most populated subregions, about one of every four adults has not graduated from high school. The percentage of college graduates is only 11 percent in the High Desert and 20 percent in the Coachella Valley. Although the High Desert has relatively few college graduates, it also has relatively few high school dropouts. Conversely, the Coachella Valley has a relatively high share of high school dropouts. This bifurcated educational distribution in the Coachella Valley is related to its economy, with many well-educated retirees moving to the area for its amenities, and younger, lower-skill workers migrating in for service sector and agricultural employment.

Whereas the Inland Empire is a primary destination for young families and all the subregions have relatively high shares of young children, certain subregions do attract substantial numbers of retirees. The San Jacinto Valley and the Coachella Valley have historically been primary destinations for retirees. Those moving to the Coachella Valley have tended to have

Table 2.3

## Percentage Distribution of Educational Attainment in the Inland Empire's Subregions, 2000

|  | Less Than a <br> High School <br> Diploma | Bachelor's <br> Degree or <br> Higher |
| :--- | :---: | :---: |
| Coachella Valley | 28 | 20 |
| Northwestern Riverside | 26 | 16 |
| San Jacinto Valley | 24 | 13 |
| Southwestern Riverside | 16 | 19 |
| High Desert | 22 | 11 |
| Western San Bernardino | 27 | 17 |
| Eastern San Bernardino | 28 | 16 |
| Inland Empire | 25 | 16 |
| California | 23 | 27 |

SOURCE: Authors' calculations based on the 2000 Census.
more education than those moving to the San Jacinto Valley. Most of the subregions have relatively high shares of children compared to the state overall (Table 2.4). Strong population growth among young adults has led to these large child populations.

In each of the Inland Empire's subregions, per-capita income is lower than that of the state as a whole (Table 2.5). The rapidly growing Southwestern Riverside subregion has among the highest per-capita incomes in the Inland Empire and the lowest poverty rate (8\%). The Coachella Valley has the highest per-capita income of all the subregions, at nearly $\$ 22,000$, but also posts one of the highest poverty rates ( $17 \%$ ). The other subregions with high poverty rates-Eastern San Bernardino, the High Desert, and the San Jacinto Valley—all have incomes lower than the regional average.

Southwestern Riverside also stands out as the region with the largest proportion of housing units built in the last decade ( $35 \%$ ) and of workers who commute more than 39 minutes to their jobs ( $40 \%$ ). These figures, combined with the high proportion of residents who lived in a different county five years earlier ( $32 \%$; not shown) and who work in a different

Table 2.4
Percentage Age Distribution in the Inland Empire's
Subregions, 2000

|  | Under <br> Age 15 | Ages 65 <br> and Over |
| :--- | :---: | :---: |
| Coachella Valley | 24 | 18 |
| Northwestern Riverside | 29 | 8 |
| San Jacinto Valley | 23 | 24 |
| Southwestern Riverside | 28 | 13 |
| High Desert | 27 | 13 |
| Western San Bernardino | 29 | 6 |
| Eastern San Bernardino | 29 | 9 |
|  |  |  |
| Inland Empire | 26 | 10 |
| California | 23 | 11 |

SOURCE: Authors' calculations based on the 2000 Census.
county ( $36 \%$ ), contribute to a profile of Southwestern Riverside as a place of rapid recent in-migration from coastal counties by people who, for the time being at least, continue to work in those counties. A similar description may apply to Western San Bernardino and Northwestern Riverside, with the highest proportions of out-of-county commuters and recent arrivals ( $24 \%$ in each case; not shown), although the housing stock is not nearly as new in these relatively built-out subregions-only 11 percent of units in Western San Bernardino and 8 percent in Northwestern Riverside were built in the 1990s. The Coachella Valley and the High Desert both have high proportions of recently built housing but very different commute patterns. Only 6 percent of Coachella Valley residents travel out of county for work, and only 10 percent have a long commute, suggesting that many residents work in their home subregions. In contrast, although only 16 percent of High Desert residents commute out of county, they have the second-highest proportion of long commutes (31\%). This likely reflects the time driving through the Cajon Pass between population centers such as Apple Valley, Hesperia, and Victorville, and to job sites in or near the city of San Bernardino.

Table 2.5
Income and Housing Characteristics in the Inland Empire's Subregions, 2000

|  | Per-Capita Income (\$) | Poverty Rate (\%) | Housing Units Built in 1990s (\%) | Work in a Different County (\%) | Commute Longer Than 39 Minutes (\%) |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Coachella Valley | 21,822 | 17 | 28 | 6 | 9 |
| Northwestern Riverside | 17,423 | 14 | 8 | 39 | 29 |
| San Jacinto Valley | 16,986 | 16 | 22 | 20 | 27 |
| Southwestern Riverside | 20,925 | 8 | 35 | 36 | 40 |
| High Desert | 15,733 | 17 | 29 | 16 | 31 |
| Western San Bernardino | 18,029 | 12 | 11 | 44 | 29 |
| Eastern San Bernardino | 15,487 | 20 | 12 | 23 | 19 |
| Inland Empire | 17,726 | 15 | 16 | 30 | 26 |
| California | 22,711 | 14 | 11 | 17 | 21 |

SOURCE: Authors' calculations based on the 2000 Census.

In sum, the Inland Empire is a rapidly growing region composed of diverse subregions. Relative to the rest of California, the region has a larger share of Latinos and African Americans. Despite strong job growth, wage growth has been relatively slow and poverty rates are somewhat higher than statewide. Relative to the rest of the state, the region has a greater share of young people and a smaller share of adults who are college graduates. For a broader description of the demographic and economic context of the Inland Empire, see Husing (2006a). ${ }^{5}$

[^4]
## 3. International and Domestic Migration

The long-term transformative power of migration is clearly evident in the Inland Empire. As the largest source of population growth in a rapidly growing region, migration is the most important driver of change in the Inland Empire. In this chapter, we first describe the size and origins of these migration flows. Next, we discuss characteristics of the migrants. Finally, we identify key factors that drive the migration.

## Flows of Migrants

Migration has been the primary driver of population growth in the Inland Empire for many years (Figure 3.1). From 1970 through 2006, migration directly accounted for 70 percent of the region's population growth. Migration flows were especially large in the late 1980s and in the current decade, both periods of surging home prices and new housing construction. Downturns in migration flows in the early 1990s were related to the recession, one that was longer and deeper in Southern California than in the rest of the nation. Even during that downturn, the Inland Empire experienced only small net outflows of migrants. Over the past five years, migration flows have been very high, rivaling the recordsetting flows of the late 1980s.

Most of the Inland Empire's migrants are not from other countries but from other places in the United States. ${ }^{1}$ Since 2000, the Inland Empire has experienced a net gain of 587,000 migrants, with 82 percent of this attributable to migration exchanges with other places in the United States and the remaining 18 percent attributable to international migration. ${ }^{2}$ Of the international migrants, over half are from Latin America, primarily Mexico, but a substantial share are U.S.-born citizens returning from

[^5]

SOURCE: Authors' calculations based on California Department of Finance data. NOTES: The figure shows net migration. For 1990 and earlier years, domestic and international net migration are combined (gray bars).

Figure 3.1—Annual Population Growth in the Inland Empire, by Components of Change, 1970-2006
abroad (Table 3.1). Many of the U.S.-born citizens moving internationally are military personnel, with Iraq one of the leading countries of origin for the most recent international migrants.

Not only does the Inland Empire grow primarily from domestic migration, the source of the domestic migrants is highly localized. Almost all of the net gains in domestic migration in the Inland Empire are attributable to flows from the coastal counties of Southern California (Table 3.2). Within Southern California, the large urban coastal counties are dominant contributors. Los Angeles County alone accounts for over half of all net domestic migration to the Inland Empire.

In contrast, flows to and from other regions within California are similar in size, and the Inland Empire actually sends more migrants to other states in the United States than it receives from those states. About half of this net loss occurs in exchanges with just two states: Arizona and Nevada. Those losses are much lower in this decade than in the latter half of the 1990s.

Table 3.1
International Migration to the Inland Empire, by
Sending Region, 1995-2000 and 2004-2006

|  | $1995-2000$ <br> Share of <br> Total | $2004-2006$ <br> Share of <br> Total |
| :--- | ---: | :---: |
| Foreign-born, \% |  |  |
| Latin America | 55.3 | 54.7 |
| Asia | 13.2 | 13.1 |
| Europe | 4.3 | 5.8 |
| Canada | 1.9 | 4.0 |
| Rest of world | 2.2 | 1.5 |
| U.S.-born returning migrants, \% | 23.1 | 20.9 |
|  |  |  |
| Total flow | 85,700 | 50,000 |

SOURCES: Authors' calculations based on the 2000 Census and the 2005 and 2006 American Community Surveys.

Table 3.2
Domestic Migration Flows to and from the Inland Empire, by Sending Region, 2000-2006

|  | Domestic In | Domestic Out | Net Domestic |
| :--- | ---: | :---: | :---: |
| Los Angeles County | 481,700 | 181,600 | 300,100 |
| Orange County | 244,900 | 89,900 | 154,900 |
| San Diego County | 147,000 | 57,100 | 89,900 |
| Ventura County | 8,500 | 7,100 | 1,400 |
| Imperial County | 8,300 | 6,700 | 1,600 |
| Remainder of state | 93,300 | 90,400 | 2,900 |
| Other states | 300,500 | 382,900 | $-82,400$ |
| Total domestic | $1,284,300$ | 815,800 | 468,500 |

SOURCES: Authors' calculations based on Internal Revenue Service tax return records, California Department of Finance estimates, and the 2005 and 2006 American Community Surveys.

As shown in Figures 3.2 and 3.3, flows of migrants to the Inland Empire from coastal Southern California have increased substantially in the first part of this decade compared to the latter half of the 1990s. Los


SOURCE: Authors' estimates based on the 2000 Census.

Figure 3.2-Net Migration Flows Between Southern California Counties, 1995-2000

Angeles County, with ten million residents, remains the dominant source of migrants to the Inland Empire. Los Angeles County migrants especially dominate the flows to San Bernardino County, with average annual net migration more than doubling from the last part of the 1990 s to the first part of the 2000 s. A relatively small but noteworthy flow has also developed from Orange County to San Bernardino County.

However, one of the most notable changes over the past ten years has been the increasing importance of Orange and San Diego Counties as sources of migrants to the Inland Empire. Riverside County is by far the primary destination of these greatly increased flows, such that Riverside County now receives about twice as many migrants from Orange and San Diego Counties combined as from Los Angeles County. Average annual flows from Orange County have more than tripled in this decade compared to the last half of the 1990 s, and flows from San Diego County have increased nearly fivefold. Net migration flows between the two Inland


SOURCES: Authors' estimates based on IRS tax return records, California Department of Finance estimates, and the 2005 and 2006 American Community Surveys.

Figure 3.3-Net Migration Flows Between Southern California Counties, 2000-2006

Empire counties are not large but are consistently from San Bernardino County to Riverside County.

## Characteristics of Migrants

More than half of the Inland Empire's residents were born elsewhere. ${ }^{3}$ Thus, the socioeconomic characteristics of its residents are to a large degree determined by the characteristics of migrants to the region.

Many of these migrants are young adults. Mobility and migration rates tend to be much higher for young adults than for older adults

[^6](Figure 3.4). Life events more common among young adults-attending or graduating from college, getting married, having children, establishing a career, changing jobs-often lead to migration. In the Inland Empire, adults in their twenties and early thirties have the highest migration rates. Rates of domestic migration both to and from the region are high at these ages. Between 2004 and 2006, domestic out-migration rates for 20- to 24 -year-olds were almost as high as domestic in-migration rates for this group, whereas domestic in-migration rates were far higher for adults in their late twenties and early thirties. International migration rates are far lower. International migrants tend to be quite young, with migration rates peaking for 20- to 24-year-olds.

A noteworthy increase in migration to the Inland Empire occurs at early retirement ages, with no offsetting increase in out-migration. On a net basis, then, this early or preretirement group experienced large positive net migration rates between 2004 and 2006.


SOURCES: Authors' calculations based on the 2005 and 2006 American Community Surveys.

Figure 3.4-Age-Specific Migration Rates for the Inland Empire, by Age Group, 2004-2006

However, it is important to bear in mind that younger adult age groups have many more people than do older age groups. Therefore, for example, high positive net migration rates of 60- to 64-year-olds leads to much lower absolute population gains than similar net migration rates for 35 - to 39-year-olds who are a much larger cohort (Table 3.3). Nonetheless, 15 percent of the net domestic migration flow between 1995 and 2000 consisted of adults ages 50 and older.

The Inland Empire is especially attractive to young families, evidenced by the strong positive net flows of adults in their thirties and relatively large flows of young children. About half of domestic migrants to the Inland Empire are married. By comparison, young singles dominate the flows

Table 3.3
Migration Flows to the Inland Empire, by Age Group, 2004-2006

| Age Group | Domestic In | Domestic Out | Net Domestic | International In |
| :--- | :---: | :---: | :---: | :---: |
| $1-4$ | 39,000 | 24,800 | 14,200 | 2,200 |
| $5-9$ | 42,400 | 20,300 | 22,100 | 2,800 |
| $10-14$ | 32,400 | 17,400 | 15,000 | 1,500 |
| $15-19$ | 34,000 | 25,300 | 8,700 | 4,600 |
| $20-24$ | 53,900 | 41,700 | 12,200 | 10,000 |
| $25-29$ | 67,700 | 35,100 | 32,700 | 9,300 |
| $30-34$ | 51,600 | 29,200 | 22,400 | 5,400 |
| $35-39$ | 37,200 | 23,900 | 13,300 | 2,300 |
| $40-44$ | 26,400 | 19,500 | 6,900 | 1,700 |
| $45-49$ | 22,500 | 17,200 | 5,300 | 2,900 |
| $50-54$ | 15,800 | 13,600 | 2,200 | 1,400 |
| $55-59$ | 16,200 | 10,000 | 6,200 | 900 |
| $60-64$ | 12,300 | 7,600 | 4,600 | 1,000 |
| $65-69$ | 7,100 | 8,200 | $(1,000)$ | 1,200 |
| $70-74$ | 4,400 | 5,300 | $(900)$ | 1,600 |
| $75+$ | 12,300 | 12,100 | 211,200 | 164,100 |

SOURCES: Authors' calculations based on the 2005 and 2006 American Community Surveys.
NOTE: Row differences may not equal net because of rounding.
out of the Inland Empire to other regions in California, whereas married couples are the largest share of adults moving to other states (Tables 3.4a and 3.4 b ).

Migration flows into the Inland Empire are ethnically diverse (Tables 3.4 a and 3.4 b , race/ethnicity panels). Latinos make up a majority of international immigrants, and whites dominate the flows, both in and out, of domestic interstate migrants. However, because intrastate migration makes up the vast majority of the net gains attributable to migration, these flows are the most important. Among intrastate migrants to the Inland Empire, Latinos make up the majority. To a certain extent, these flows represent the ethnic composition of the places of origin of the migrants. For example, whites dominate the flows from Orange and San Diego Counties, whereas Latinos dominate the flows from Los Angeles County (see Appendix Table B. 2 for migrant characteristics by origin county). Recent estimates (Table 3.5) suggest that Latinos constitute more than half of net migration to Riverside County and the vast majority of net migration to San Bernardino County. The estimates also suggest that Asian migration, especially to Riverside County, has increased substantially this decade compared to the previous one.

Although international migration directly contributes less than 20 percent of all net migration gains, many intrastate migrants to the Inland Empire are in fact foreign-born. This stepwise migration pattern, in which immigrants first settle in an ethnic enclave of foreign-born co-ethnics and then eventually move out of the enclave, is well documented in the research literature. In the case of the Inland Empire, 30 percent of intrastate in-migrants are foreign born (Tables 3.4a and 3.4b). Most of these foreign-born intrastate migrants to the Inland Empire are from Los Angeles County and have been in the United States for more than ten years (see Appendix Table B. 3 for migration flows by origin county). Thus, a substantial share of the intrastate flows to the Inland Empire includes many individuals and families who first came to the United States and settled in Los Angeles County; then, after many years in the United States, they moved from Los Angeles to the Inland Empire.

Domestic migrants of all types-to and from the Inland Empire, interstate and intrastate-are more likely than native residents to have

Table 3.4a
Characteristics of Migrants Moving to and from the Inland Empire, 2004-2006

|  | All <br> Residents | International In | Interstate In | Interstate Out | Intrastate <br> In | Intrastate Out |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Sex |  |  |  |  |  |  |
| Female | 50.2 | 45.1 | 49.6 | 49.0 | 48.8 | 46.7 |
| Male | 49.8 | 54.9 | 50.4 | 51.0 | 51.2 | 53.3 |
| Race/ethnicity |  |  |  |  |  |  |
| White | 40.6 | 19.8 | 56.1 | 57.2 | 26.5 | 38.9 |
| Latino | 43.8 | 61.6 | 26.4 | 26.8 | 54.6 | 35.5 |
| African American | 7.1 | 2.8 | 7.2 | 8.4 | 8.1 | 8.2 |
| Asian | 5.5 | 12.9 | 6.3 | 4.3 | 8.6 | 12.2 |
| American Indian | 0.5 | 0.6 | 1.1 | 0.9 | 0.3 | 0.3 |
| Multiracial | 1.7 | 0.2 | 2.2 | 2.3 | 1.5 | 4.0 |
| Other | 0.8 | 2.1 | 0.6 | 0.1 | 0.4 | 0.9 |
| Citizenship |  |  |  |  |  |  |
| Citizen by birth | 78.0 | 20.8 | 85.4 | 85.8 | 69.8 | 78.5 |
| Naturalized citizen | 8.3 | 2.5 | 4.9 | 6.2 | 11.0 | 8.3 |
| Not a citizen | 13.7 | 76.7 | 9.7 | 8.0 | 19.2 | 13.3 |
| Education |  |  |  |  |  |  |
| 8 th grade or less | 10.1 | 25.7 | 4.6 | 6.3 | 12.2 | 4.9 |
| Some high school | 12.6 | 9.0 | 11.6 | 7.5 | 14.9 | 11.6 |
| High school graduate | 27.6 | 21.1 | 26.7 | 28.5 | 26.0 | 27.8 |
| Some college | 31.1 | 19.2 | 27.6 | 37.8 | 26.9 | 31.9 |
| Bachelor's degree | 12.2 | 17.3 | 19.0 | 13.7 | 14.7 | 14.5 |
| Graduate degree | 6.3 | 7.7 | 10.5 | 6.2 | 5.2 | 9.3 |
| Marital status |  |  |  |  |  |  |
| Married | 55.2 | 49.3 | 48.8 | 54.8 | 50.4 | 37.4 |
| Never married | 26.7 | 38.3 | 33.2 | 27.2 | 33.7 | 43.5 |
| Separated/divorced | 12.8 | 7.2 | 12.6 | 12.8 | 12.6 | 15.3 |
| Widowed | 5.3 | 5.3 | 5.4 | 5.2 | 3.3 | 13.8 |
| Poverty status |  |  |  |  |  |  |
| Above poverty | 86.0 | 63.0 | 85.3 | 80.1 | 80.2 | 72.1 |
| At or below poverty | 14.0 | 37.0 | 14.7 | 19.9 | 19.8 | 27.9 |

Table 3.4a (continued)

|  | All <br> Residents | International In | Interstate In | Interstate Out | Intrastate In | Intrastate Out |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Welfare status |  |  |  |  |  |  |
| No welfare | 97.3 | 99.1 | 96.8 | 97.8 | 97.7 | 96.7 |
| Received welfare | 2.7 | 0.9 | 3.2 | 2.1 | 2.3 | 3.3 |
| Household income, \$1,000s |  |  |  |  |  |  |
| <25 | 16.3 | 30.2 | 15.9 | 22.1 | 15.2 | 20.3 |
| 25-49 | 24.8 | 23.0 | 21.7 | 32.3 | 26.8 | 23.3 |
| 50-74 | 20.8 | 21.0 | 21.9 | 21.9 | 25.1 | 21.0 |
| 75-99 | 15.0 | 10.5 | 13.3 | 11.5 | 13.6 | 13.8 |
| 100+ | 23.1 | 15.3 | 27.2 | 12.1 | 19.2 | 21.6 |
| Housing tenure |  |  |  |  |  |  |
| Renter | 32.3 | 66.2 | 69.3 | 57.0 | 41.8 | 73.3 |
| Owner | 67.7 | 33.8 | 30.7 | 43.0 | 58.2 | 26.7 |

SOURCES: Authors' calculations based on the 2005 and 2006 American Community Surveys.
NOTES: Education is determined for adults ages 25 and over; marital status for adults ages 18 and over; poverty status for persons in households; and welfare and housing tenure for household heads.
at least a bachelor's degree (Tables 3.4a and 3.4b). Moreover, between 2004 and 2006, a higher share of international migrants ( $25 \%$ ) graduated from college than did all Inland Empire residents (18.5\%). However, an even larger share of international migrants had not completed high school (35\%). The best-educated migrants are interstate in-migrants, but there are relatively few of them. Intrastate out-migrants from the Inland Empire are also relatively well educated ( $24 \%$ are college graduates) and tend to be better educated than intrastate in-migrants.

The overall picture that emerges with respect to migration and educational attainment is at best mixed. A substantial share of international migrants to the Inland Empire have college degrees, but many more have not graduated from high school, and most of these have less than a ninthgrade education. In its domestic migration exchanges, the Inland Empire is a net importer of migrants at every level of education, but also gains far more residents at the low end of the education spectrum than at the higher
Table 3.4b
Socioeconomic and Demographic Characteristics of Migrants Moving to and from the Inland Empire, 2004-2006

|  | International In | Interstate In | Interstate Out | Intrastate In | Intrastate Out | Total Domestic In | Total Domestic Out | Total Net Domestic |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Sex |  |  |  |  |  |  |  |  |
| Female | 22,500 | 54,600 | 80,500 | 178,200 | 68,600 | 232,800 | 149,100 | 83,700 |
| Male | 274,400 | 55,500 | 83,800 | 187,000 | 78,300 | 242,500 | 162,100 | 80,400 |
| Race/ethnicity |  |  |  |  |  |  |  |  |
| White | 9,900 | 61,800 | 94,000 | 96,800 | 57,200 | 158,500 | 151,100 | 7,400 |
| Latino | 30,800 | 29,100 | 44,000 | 199,400 | 52,200 | 228,500 | 96,200 | 132,300 |
| African American | 1,400 | 7,900 | 13,800 | 29,600 | 12,100 | 37,500 | 25,800 | 11,700 |
| Asian | 6,400 | 6,900 | 7,100 | 31,400 | 17,900 | 38,300 | 25,000 | 13,300 |
| American Indian | 300 | 1,200 | 1,500 | 1,100 | 400 | 2,300 | 1,900 | 400 |
| Multiracial | 100 | 2,400 | 3,800 | 5,500 | 5,900 | 7,900 | 9,700 | $(1,800)$ |
| Other | 1,000 | 700 | 200 | 1,500 | 1,300 | 2,100 | 1,500 | 600 |
| Citizenship |  |  |  |  |  |  |  |  |
| Citizen by birth | 10,400 | 94,000 | 140,900 | 254,900 | 115,400 | 349,000 | 256,300 | 92,700 |
| Naturalized citizen | 1,200 | 5,400 | 10,200 | 40,200 | 12,200 | 45,600 | 22,400 | 23,200 |
| Not a citizen | 38,300 | 10,700 | 13,100 | 70,100 | 19,500 | 80,800 | 32,700 | 48,100 |
| Education |  |  |  |  |  |  |  |  |
| 8th grade or less | 7,500 | 2,900 | 6,000 | 25,800 | 4,200 | 28,700 | 10,200 | 18,500 |
| Some high school | 2,600 | 7,200 | 7,200 | 31,500 | 10,000 | 38,700 | 17,200 | 21,500 |

Table 3.4b (continued)

|  | International In | Interstate In | Interstate Out | Intrastate In | Intrastate Out | Total Domestic In | Total Domestic Out | Total Net Domestic |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| High school graduate | 6,100 | 16,600 | 27,200 | 55,000 | 24,000 | 71,600 | 51,200 | 20,400 |
| Some college | 5,600 | 17,200 | 36,100 | 56,900 | 27,500 | 74,000 | 63,600 | 10,400 |
| Bachelor's degree | 5,000 | 11,800 | 13,100 | 31,100 | 12,500 | 42,900 | 25,600 | 17,300 |
| Graduate degree | 2,200 | 6,500 | 5,900 | 11,000 | 8,000 | 17,500 | 13,900 | 3,600 |
| Marital status |  |  |  |  |  |  |  |  |
| Married | 20,400 | 41,300 | 65,800 | 131,200 | 45,000 | 172,500 | 110,800 | 61,700 |
| Never married | 15,800 | 28,100 | 32,700 | 87,700 | 52,300 | 115,800 | 85,000 | 30,800 |
| Separated/divorced | 3,000 | 10,700 | 15,400 | 32,800 | 18,400 | 43,500 | 33,800 | 9,700 |
| Widowed | 2,200 | 4,600 | 6,200 | 8,600 | 16,600 | 13,200 | 22,800 | $(9,600)$ |
| Poverty status |  |  |  |  |  |  |  |  |
| Above poverty | 31,500 | 93,900 | 131,600 | 292,900 | 106,000 | 386,800 | 237,500 | 149,300 |
| Below poverty | 18,500 | 16,200 | 32,700 | 72,300 | 41,000 | 88,500 | 73,700 | 14,800 |
| Welfare status |  |  |  |  |  |  |  |  |
| No welfare | 8,100 | 30,200 | 55,700 | 103,700 | 43,500 | 133,900 | 99,300 | 34,600 |
| Received welfare | 100 | 1,000 | 1,200 | 2,400 | 1,500 | 3,400 | 2,700 | 700 |
| Household income,$\$ 1,000 \mathrm{~s}$ |  |  |  |  |  |  |  |  |
| <25 | 14,300 | 17,000 | 35,100 | 53,100 | 26,000 | 70,100 | 61,100 | 9,000 |
| 25-49 | 10,900 | 23,200 | 51,300 | 93,700 | 29,800 | 116,800 | 81,100 | 35,700 |

Table 3.4b (continued)


Table 3.5
Estimates of Net Migration to San Bernardino and Riverside Counties, by Ethnicity, 2000-2006

|  | San Bernardino <br> County | Riverside <br> County |
| :--- | ---: | ---: |
| Total | 166,400 | 364,200 |
| White | $-26,500$ | 99,700 |
| Latino | 169,400 | 203,600 |
| Asian | 14,600 | 47,100 |
| African American | 16,200 | 8,800 |
| American Indian | 2,000 | 2,500 |
| Multiracial | $-9,800$ | 2,300 |

SOURCES: Authors' calculations based on California Department of Finance estimates for 2000-2004 and the 2005 and 2006 American Community Surveys.
end (Figure 3.5). Thus, while the Inland Empire does not suffer a brain drain, it disproportionately receives more less-educated migrants. Net domestic in-flows of adults who have not graduated from high school are twice those of adults with a college degree.

As housing prices have risen this decade and as the region continues to create large numbers of new jobs, some have suggested that recent migrants are better educated than past migrants. We find some evidence that this is the case, but the changes have been minimal. Educational attainment levels of migrants to the Inland Empire are now slightly higher than in the late 1990 s, but educational attainment levels of out-migrants from the Inland Empire are also higher. For example, among intrastate migrants, 20 percent of those moving to the region between 2004 and 2006 had a college degree, compared to 19 percent in the late 1990 s; among outmigrants to the rest of the state, the share of college graduates has increased from 23 percent to 24 percent. The best-educated migrants are those moving from other states, but they are relatively few in number. Indeed, the general pattern in which there is a greater share of college graduates among out-migrants than among in-migrants is one that is at least two decades old. The Inland Empire has not experienced a net loss of college


SOURCES: Authors' calculations based on the 2005 and 2006 American Community Surveys.

Figure 3.5-Net Domestic Migration Flows to the Inland Empire, by Educational Attainment, 2004-2006
graduates simply because it receives so many more migrants than it sends out.

The region does experience a net loss of college-bound high school seniors. Among high school graduates who enrolled in a public university in California between 2000 and 2004, the Inland Empire experienced a net loss of almost 5,000 students ( 9,900 came to the Inland Empire to attend public universities and 14,600 left the Inland Empire to go to public universities elsewhere in the state). ${ }^{4}$ These losses were entirely due to San Bernardino County patterns. In Riverside County, students arriving at UC Riverside led to a net gain of 2,100 college-bound high school students; 70 percent of UC Riverside's freshmen are from outside the Inland Empireand most of those (four out of five) are from coastal Southern California counties-counties that many return to once they graduate. In contrast,

[^7]between 2000 and 2004, San Bernardino County lost almost four times as many college-bound high school seniors as it gained, for a total net loss of 6,900 students, and despite the presence of California State University at San Bernardino, the county even lost high school students headed for a Cal State University. Most (64\%) of Inland Empire high school graduates who go to a Cal State University campus do not go to CSU San Bernardino, even though 5,295 of 6,176 freshmen there were from the Inland Empire. ${ }^{5}$

On a net basis, the Inland Empire attracts residents at all income levels. The number of high-income households is substantially greater than the number of low-income households (Table 3.6). Examination of the specific flows shows that poverty rates are especially high for international migrants (Tables 3.4 a and 3.4 b ). Despite their high poverty rates, welfare use is low among international migrants. Interstate migrants coming to the Inland Empire and intrastate migrants leaving it have slightly higher welfare rates than do all Inland Empire residents.

## Determinants of Migration

Strong job growth in the Inland Empire has been an important magnet for migrants to the region. Job growth in the region has for many years consistently outpaced job growth in the rest of Southern California (Figure 3.6). Job growth has been especially impressive over the past ten years. Even during the severe recession of the early 1990s, Riverside County continued to gain jobs and San Bernardino County had a very small loss for one year only. From 2000 to 2006, the number of jobs increased 22 percent in San Bernardino County and 34 percent in Riverside County.

Despite this strong growth, the Inland Empire remains more of a housing center than a job center-population gains continue to outstrip job gains. Between 2000 and 2006, the number of residents commuting to another county increased even as the number of people living and working

[^8]

SOURCE: Authors' calculations based on U.S. Bureau of Economic Analysis data on jobs. NOTE: The number of jobs in 1969 is normalized to a base of 100 for each region.

Figure 3.6—Indexed Wage and Salary Employment in Selected Counties, 1969-2006
within the two counties also increased. Despite recent declines, housing prices in the Inland Empire have risen tremendously this decade. Still, the region remains one of the least-expensive housing markets in the state (Table 3.6). Relative differences between housing prices in the Inland Empire and coastal Southern California have remained large. ${ }^{6}$ Housing prices also differ substantially within the Inland Empire and even within its subregions. For example, the highest median price for homes sold in 2007 in the Inland Empire was $\$ 785,000$ in Indian Wells in the Coachella Valley; not far away, and also in the Coachella Valley, the median price in Desert Hot Springs was $\$ 267,500$. The High Desert has the lowest prices of any subregion, with the median in Twentynine Palms less than \$150,000 for homes sold in 2007. The most expensive subregions outside the Coachella Valley are Western San Bernardino and Southwestern Riverside.

[^9]Table 3.6
Median Home Prices in Selected Counties, 1999-2007

|  |  |  |  | Percentage, <br> Change, | Percentage <br> Change, |
| :--- | :---: | :---: | :---: | :---: | :---: |
| County | August 1999 | August 2006 | August 2007 | 1999-2006 | $2006-2007$ |
| Orange | 241,000 | 630,000 | 642,000 | 156 | 2 |
| San Diego | 213,000 | 495,000 | 475,000 | 131 | -4 |
| Los Angeles | 191,000 | 520,000 | 550,000 | 159 | 6 |
| Riverside | 150,000 | 420,000 | 395,000 | 159 | -6 |
| San Bernardino | 137,000 | 366,000 | 360,000 | 144 | -2 |

SOURCE: DataQuick at http://www.dqnews.com/RRSCA0905.shtm.
Of course, people move for many reasons other than jobs or housing. Parsing out the separate effects of housing from job availability is difficult enough, let alone incorporating other factors such as family. One source of information on the relative importance of various reasons for moving is the Current Population Surveys. Respondents who moved within the last year are asked their "main reason" for moving. As shown in Table 3.7, the primary reason cited among intercounty migrants to Riverside and San Bernardino Counties was housing. Indeed, more than half of all adult respondents identified housing as the primary reason. Job-related reasons were listed third, behind family-related reasons.

Among those citing a specific housing reason, the most common reasons cited were the desire for a "new or better house/apartment," followed by the desire to buy rather than rent, the desire for a better neighborhood (including one with less crime), and the desire for cheaper housing. Clearly, it is the availability and relative affordability of housing in the Inland Empire that seems to be the primary draw for most migrants. A separate survey of San Bernardino County residents found that "affordable housing" was cited third most frequently as the "one best thing about living in San Bernardino County" (after general area/location/scenery and climate (Bockman, Sirotnik, and Ruiz, 2005)).

Not only are Inland Empire housing prices less than those in the coastal regions, the relative abundance of new and large single-family homes has drawn many coastal residents who often cannot find such housing in the more densely built-up coastal counties, where new

Table 3.7
Reasons for Moving to the Inland Empire

| Reason | Percentage <br> of Movers |
| :--- | :---: |
| Housing | 54.4 |
| Family | 24.2 |
| Job | 16.2 |
| College | 2.0 |
| Health | 0.9 |
| Retirement | 0.9 |
| Climate | 0.1 |
| Other | 1.3 |

SOURCES: Authors' calculations based on the 1995 to 2005 Current Population Surveys. NOTE: Restricted to intercounty migrants to the Inland Empire, ages 18 and over.
single-family housing is less prevalent.Many of the new houses in the Inland Empire are not inexpensive; they are simply less expensive than similar houses in coastal areas. More than half of houses built in the Inland Empire this decade have four or more bedrooms, and in 2006 over 40 percent of all new owner-occupied housing units built in the region were valued at above $\$ 400,000$. For many coastal residents, the decision to move to the Inland Empire is not only about price but also about house size and other features of newer housing, including newer schools and community amenities.

Of course, substantial shares of the region's new residents are renters. These migrants are attracted by the less-expensive rents in the Inland Empire and by the availability of larger rental units, including houses. About three of every ten rental units in the Inland Empire have three or more bedrooms, compared to only about three in 20 rental units in coastal Southern California. Rents tend to be substantially lower in the Inland Empire than in the adjacent coastal counties (Table 3.8).

Housing affordability has become an even greater concern as prices have risen. Large proportions of homeowners and renters spend inordinate shares of their income on housing. In both Riverside and San Bernardino

Table 3.8
Average Monthly Rent in Selected Regions, 2006

|  | Bedrooms |  |  |
| :--- | ---: | ---: | :---: |
| Region | One | Two | Three or More |
| Inland Empire | 765 | 996 | 1,338 |
| Los Angeles County | 855 | 1,107 | 1,439 |
| Orange County | 1,063 | 1,358 | 1,829 |
| San Diego County | 896 | 1,177 | 1,660 |
| Rest of the state | 855 | 1,016 | 1,340 |
| Rest of the nation | 614 | 745 | 906 |

SOURCE: Author's calculations based on the 2006 American Community Survey.

Counties, about 30 percent of renters in 2006 spent more than half of their income on rent, and almost one in four of the region's homeowners spend more than half their income on housing costs. ${ }^{7}$ Although the Inland Empire enjoys lower rents and housing prices than the rest of the state, the region's lower incomes mean that housing burdens for renters and homeowners are similar to those in the rest of California and are substantially higher than in the rest of the United States. The recent decline in housing prices (median prices remain far higher than in 1999) has led to high rates of foreclosure, as financially vulnerable homeowners are unable to meet increases in mortgage payments and cannot sell homes worth less than the outstanding mortgage. In the near term, the downturn in new housing construction will slow migration to the region.

[^10]
## 4. Population Projections

At the core of understanding the future opportunities and challenges of any region is understanding its future population. In this chapter, we describe projections for the population of the Inland Empire and its subregions. In addition to the total population counts, we also project key characteristics of the population including age, race/ethnicity, and nativity.

The accuracy of population projections depends on the validity of the underlying assumptions used to generate those projections. In general, short-range projections are more accurate than long-range projections, and projections for large populations are more accurate (in percentage terms) than projections for small populations. Projections of populations that have experienced little volatility in past rates of change are more accurate than projections for areas that have had large variations. Our projections for the Inland Empire are medium-term ( 15 years from 2000 to 2015) and include large populations for the entire region and small populations for the subregions. The Inland Empire has experienced rapid growth rates, with much of the growth fueled by migration-a component of change that has been somewhat volatile.

To project the Inland Empire's population, we use a cohort component method. In this approach, future populations are created by applying fertility, mortality, and migration rates to a base-year population. In our application, we disaggregate the population by age, gender, ethnicity, and nativity. Our assumptions about fertility, mortality, and migration are generally drawn from recent trends. To project populations for subregions, we use a "shift share" approach. In this method, future populations for a subregion are based on recent trends in that subregion's share of the total regional population. Details of the approach are given in Appendix A.

Our projections are for the resident population of the Inland Empire and its subregions. In some areas, seasonal movement can substantially alter the number of people living there at a particular point in time. Our projections are based on the population usually resident; that is, it includes only those residents who spend more time in their Inland Empire residence than in any other residence. Among the larger regions, the Coachella

Valley has a substantial seasonal or occasional population, with about one in five housing units held for seasonal or occasional use. ${ }^{1}$

## Projected Population Counts

Our projections indicate that the Inland Empire will continue to be one of the fastest-growing regions of the state. Between 2005 and 2015, the region will add one million additional residents to reach a total of 4.9 million. This is the equivalent of adding a population five times that of the city of San Bernardino. At 23 percent growth, the projections for the region far surpass the 13 percent projected growth rate for the state's population. ${ }^{2}$ Moreover, Riverside County will experience among the fastest rates of growth $(26 \%)$ and the greatest absolute growth $(569,000)$ of any county in the state. By 2007, Riverside County had already surpassed San Bernardino County to become the state's fourth most-populous county, after Los Angeles, Orange, and San Diego Counties.

Although we project rapid population growth for the Inland Empire, our projections could be considered modest based on the most recent trends. Our projected population growth—both in percentage and absolute terms-is lower on an annualized basis than has been experienced since 2000 (Table 4.1). This slightly lower growth between 2005 and 2015 is due primarily to our assumptions about migration and secondarily to our assumptions about fertility. Specifically, we assume a moderate decline in age-specific migration rates and a small decline in fertility rates (see Appendix A). Our projections for 4.9 million in 2015 are consistent with those of the California Department of Finance (2007). ${ }^{3}$

[^11]Table 4.1
Population Estimates and Projections for the Inland Empire, 2000-2005 and 2005-2015

| Region | 2000 | 2005 | 2015 | Average Annual <br> Absolute Change |  | Average Annual Percentage Change |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | $\begin{gathered} 2000- \\ 2005 \end{gathered}$ | $\begin{gathered} 2005- \\ 2015 \end{gathered}$ | $\begin{gathered} 2000- \\ 2005 \end{gathered}$ | $\begin{gathered} 2005- \\ 2015 \end{gathered}$ |
| Riverside |  |  |  |  |  |  |  |
| County | 1,559,100 | 1,930,900 | 2,499,800 | 74,300 | 56,900 | 4.4 | 2.6 |
| San Bernardino |  |  |  |  |  |  |  |
| County | 1,722,800 | 1,967,700 | 2,377,200 | 49,000 | 40,900 | 2.7 | 1.9 |
| Inland Empire | 3,281,900 | 3,898,500 | 4,877,100 | 123,300 | 97,900 | 3.5 | 2.3 |

SOURCES: California Department of Finance estimates for July 1, 2000, and authors' projections for 2005 and 2015.
NOTE: Projections for 2005 are adjusted based on the July 1, 2005, estimates developed by the California Department of Finance.

Our projections assume a slowdown in growth similar to that in the Inland Empire in the 1990s after the tremendous growth of the late 1980s. Average annual growth rates in the Inland Empire during the 1990s, a decade of modest growth by Inland Empire standards, were 2.3 percent, the same rate of growth as in our projections from 2005 to 2015. Over the past quarter-century, the Inland Empire has experienced pronounced boom and bust cycles of growth, as exemplified by housing starts (Figure 4.1). In both counties, annual new housing starts reached about 35,000 units in the late 1980s and then fell precipitously. This decline was caused by the recession of the early 1990 - one that was much deeper and longerlasting in California than in the rest of the nation-and by the savings and loan crisis, which led to tighter lending standards (at least temporarily). The first half of this decade saw another booming housing market in the Inland Empire, particularly in Riverside County. Strong demand from coastal Southern California, strong job growth, and easy credit led to sharp increases in home building.

However, since 2005, another dramatic slowdown in new housing construction has occurred. Unlike the slowdown of the early 1990s, this


SOURCES: Authors' calculations based on Census data on residential construction permits (http://censtats.census.gov/bldg/bldgprmt.shtml) and U.S. Department of Housing and Urban Development's "State of the Cities Data System" (http://socds.huduser.org/ permits/index.html).
${ }^{\text {a Estimated annual number is based on the ratio of year-to-date permits (through }}$ September) for 2006 to 2007.

Figure 4.1—New Residential Building Permits in Riverside and San Bernardino Counties, 1980-2007
slowdown has not occurred in a recession, but rather as rapidly increasing home prices finally leveled off and subsequently began to decline. Many of the home buyers of the early 2000s, particularly those in the subprime mortgage market, took out loans that they were not able to sustain. The decline in home prices meant some of those homeowners owed more on their homes than they could sell them for. As a result, the Inland Empire now has one of the highest rates of foreclosure in the nation, and developers have dramatically reduced new home building. There is concern nationwide that problems in the housing sector will lead to a recession. Our projections implicitly assume that the booming growth of the early 2000s will not resume within the next few years but that in the long run, the Inland Empire will continue to be the locus of growth in Southern California.

We project strong but moderated growth in each of the region's highly populated subregions. ${ }^{4}$ Most of the subregions are projected to have growth rates that exceed those of the state as a whole, but growth rates are projected to decline for every subregion except the San Jacinto Valley-with its population increasing by about half between 2000 and 2015 (Table 4.2).

## Table 4.2

Population Projections for the Inland Empire's Subregions, 2000, 2005, and 2015

| Subregion | 2000 | 2005 | 2015 | Average Absolute | Annual Change | Average Annual Percentage Change |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | $\begin{gathered} 2000- \\ 2005 \end{gathered}$ | $\begin{gathered} 2005- \\ 2015 \end{gathered}$ | $\begin{gathered} 2000- \\ 2005 \end{gathered}$ | $\begin{gathered} 2005- \\ 2015 \end{gathered}$ |
| Coachella Valley | 319,600 | 401,000 | 535,000 | 16,300 | 14,800 | 4.6 | 2.9 |
| Northwestern |  |  |  |  |  |  |  |
| Riverside | 773,600 | 889,000 | 1,013,000 | 23,100 | 15,100 | 2.8 | 1.3 |
| San Jacinto Valley | 192,800 | 232,000 | 361,000 | 7,800 | 13,800 | 3.8 | 4.5 |
| Southwestern |  |  |  |  |  |  |  |
| Riverside | 223,100 | 321,000 | 477,000 | 19,600 | 16,900 | 7.5 | 4.0 |
| High Desert | 345,700 | 420,000 | 565,000 | 14,900 | 14,500 | 4.0 | 3.0 |
| Western San |  |  |  |  |  |  |  |
| Bernardino | 717,100 | 835,000 | 957,000 | 23,600 | 12,200 | 3.1 | 1.4 |
| Eastern San |  |  |  |  |  |  |  |
| Bernardino | 562,000 | 618,000 | 721,000 | 11,200 | 10,300 | 1.9 | 1.6 |
| Riverside County | 1,546,600 | 1,930,900 | 2,500,000 | 76,900 | 56,900 | 4.5 | 2.6 |
| San Bernardino |  |  |  |  |  |  |  |
| County | 1,708,200 | 1,967,700 | 2,377,000 | 51,900 | 40,900 | 2.9 | 1.9 |
| Inland Empire | 3,254,800 | 3,898,500 | 4,877,000 | 128,700 | 97,900 | 3.7 | 2.3 |

SOURCES: Census data for April 1, 2000, and authors' estimates for 2005 and projections for 2015.

[^12]Southwestern Riverside will have the greatest absolute growth, increasing by about 170,000 new residents.

## Projected Population Characteristics

Like the rest of the nation, the Inland Empire is aging. By 2015, the largest baby boom cohort will reach 55-59 years of age, and the leading edge of the baby boom generation will be 69 years old. These age groups, then, will experience rapid increases as the resident population ages, with the number of 55- to 69-year-olds more than doubling between 2000 and 2015 (Figure 4.2). In addition, declining mortality rates and past in-migration among retirees will lead to substantial increases in the very oldest Inland Empire residents, those ages 85 and older, whose numbers will more than double.

However, the Inland Empire is also experiencing strong growth in some younger age groups. The echo of the baby boom, adults 20-34 years old, will increase in numbers by more than 70 percent. This baby boomlet generation will include many young adults who continue to migrate to the Inland Empire, primarily from the rest of Southern California. The growth of this population will in turn lead to yet another echo-this time, the echo of the baby boomlet (or the echo of the echo of the baby boom). As the baby boomlet generation reaches prime childbearing years, the number of children younger than five years old will increase by more than 50 percent between 2000 and 2015.

Importantly, and perhaps beneficially, the number of children of school age ( 5 - to 17 -year-olds) will grow modestly by Inland Empire standards. This age group is projected to increase 30 percent from 2000 to 2015 and only 17 percent between 2005 and 2015. The slowest-growing segment of this group will be high-school-age students, with only a 7 percent increase between 2005 and 2015. These relatively slow growth rates mean that building new schools will be less of a challenge than it has been in the past. Unlike other parts of California (especially large urban coastal areas), where the debates will be about which schools to close, the Inland Empire will still need to build new schools but the pace of construction will not need to be as great as in the past.


SOURCES: California Department of Finance estimates for July 1, 2000, and authors' projections for 2005 and 2015.

Figure 4.2-Population Projections for the Inland Empire, by Age Group, 2000, 2005, and 2015

The patterns of change with respect to age that we observed for the Inland Empire hold for its subregions, with a few notable exceptions. First, the Coachella Valley, already one of the subregions with the greatest share of older residents, will become even older. By 2015, 19 percent of the Coachella Valley's residents will be ages 65 and over, up slightly from 18 percent in 2000. At the same time, the Coachella Valley will also experience a greater increase than the rest of the region in the youngest age group, children younger than five. By contrast, the San Jacinto Valley is projected to become younger. In 2000, almost one of every four San Jacinto Valley residents was age 65 or over. Our projections suggest this share will decline to 18 percent by 2015 as the San Jacinto Valley increasingly attracts younger migrants in their twenties and thirties. Finally, the High Desert will experience an increase in its older population. The total number of adults ages 65 and older is projected to nearly double, with their share of the High Desert's total population increasing from 13 percent to 15 percent.

According to our projections, Latinos will become the new majority population in the Inland Empire by 2015 (Table 4.3). This increase will occur not only because a majority of international migrants are Latino but also because Latinos are the largest group among intrastate migrants. Los Angeles County, the primary source of migrants to the Inland Empire, will also have a majority Latino population by 2015, according to California Department of Finance projections. Moreover, because birth rates are relatively high and because Latinos are disproportionately represented among young adults of childbearing age, natural increase is quite high among Latinos.

Asians will continue to be another fast-growing segment of the Inland Empire's population, driven by both domestic and international migration. Birth rates are quite low for Asians, but the large share of Asians of childbearing age will contribute to natural increase. We project that the Asian population will increase from 204,000 in 2005 to 322,000 in 2015.

Dramatic gains in the African American population that occurred in the 1990s seem to have abated, according to California Department of Finance (2005) estimates. Our projections assume continued growth in the African American population, but at slower rates than in the 1990s. As a result, even though the African American population in the Inland Empire

## Table 4.3

Projected Percentage Ethnic Distribution in the Inland Empire, 2000, 2005, and 2015

|  | 2000 | 2005 | 2015 |
| :--- | ---: | ---: | ---: |
| White | 47.2 | 41.9 | 32.1 |
| Latino | 38.4 | 43.1 | 51.2 |
| African American | 7.6 | 7.4 | 7.2 |
| Asian | 4.6 | 5.2 | 6.6 |
| American Indian | 0.6 | 0.6 | 0.5 |
| Multiracial | 1.6 | 1.8 | 2.4 |

SOURCES: California Department of Finance estimates for July 1, 2000, and authors' projections for 2005 and 2015.
NOTE: Asian includes Pacific Islanders.
will increase from 290,000 to 349,000 , the African American share of the region's population will decline to 7.2 percent.

For the entire region, the non-Hispanic white population is projected to remain at about 1.6 million from 2005 to 2015. San Bernardino County is projected to have a 10 percent decline in the white population, whereas Riverside County is projected to have a 1 percent increase. Low birth rates, a large share past childbearing age, and out-migration of whites from San Bernardino County account for these trends.

Perhaps the most dramatic subregional changes in ethnic distributions will occur in Western San Bernardino and Eastern San Bernardino. In 2000, Latinos were the largest group in both subregions but not a majority. By 2015, Latinos will be the majority ethnic group in both subregions (Table 4.4). Large declines in the non-Hispanic white population, which began in the 1990s, are projected to continue. In 1990, these two subregions were home to 593,000 whites; by 2000, that figure had declined to 471,000 ; and our projections for 2015 put that population at 374,000 . Latinos are also projected to become the majority ethnic group in the Coachella Valley and in Northwestern Riverside.

Only two subregions will still have majority white populations: Southwestern Riverside and the San Jacinto Valley. Asian concentrations are highest in Southwestern Riverside, Northwestern Riverside, and Western San Bernardino.

We project a slight increase in the foreign-born population of the Inland Empire (Table 4.5) because of the more rapid growth of Asian and Latino populations, two groups with large shares who are foreignborn. However, among Asians and Latinos, the foreign-born share will decline. Both now and in future projections, San Bernardino and Riverside Counties have similar shares of foreign-born residents.

The most striking change with respect to nativity will occur among Latino and Asian young adult (20-34 years of age) populations. Currently, the large majority of these young adults are first-generation immigrants. However, by 2015, a majority will be U.S.-born. These changes result from the large growth in the number of second-generation children of immigrants throughout California. After several decades of strong and sustained flows of immigrants, the children of those immigrants are now

Table 4.4

## Projected Percentage Ethnic Distribution in the Inland Empire's Subregions, 2000 and 2015

|  | 2000 |  |
| :--- | ---: | ---: |
| Coachella Valley |  |  |
| White | 47.9 | 38.9 |
| Latino | 46.3 | 53.2 |
| African American | 1.9 | 0.9 |
| Asian | 2.2 | 5.2 |
| American Indian | 0.4 | 0.2 |
| Multiracial | 1.4 | 1.5 |


|  | Northwestern Riverside |  |
| :--- | ---: | ---: |
| White | 43.5 | 22.8 |
| Latino | 39.1 | 57.3 |

African American $9.1 \quad 6.9$
Asian 5.0 9.3
$\begin{array}{lll}\text { American Indian } & 0.5 & 0.4\end{array}$

| Multiracial | 2.8 | 3.3 |
| :--- | :--- | :--- |


| San Jacinto Valley |  |  |
| :--- | ---: | ---: |
| White | 66.4 | 52.1 |
| Latino | 25.0 | 37.0 |
| African American | 2.9 | 2.9 |
| Asian | 1.7 | 2.5 |
| American Indian | 1.8 | 2.7 |
| Multiracial | 2.2 | 2.8 |


| Southwestern Riverside |  |  |
| :--- | ---: | ---: |
| White | 68.8 | 53.2 |
| Latino | 21.5 | 31.8 |
| African American | 3.1 | 3.3 |
| Asian | 3.1 | 8.5 |
| American Indian | 0.7 | 0.8 |
| Multiracial | 2.8 | 2.3 |

High Desert

| White | 61.7 | 47.9 |
| :--- | ---: | ---: |
| Latino | 25.2 | 38.7 |
| African American | 6.6 | 7.2 |

Table 4.4 (continued)

|  | 2000 | 2015 |
| :--- | :---: | ---: |
| Asian | 2.4 | 2.8 |
| American Indian | 0.9 | 0.9 |
| Multiracial | 3.1 | 2.5 |
| Western San Bernardino |  |  |
| White | 36.2 | 18.2 |
| Latino | 46.7 | 62.8 |
| African American | 7.6 | 7.0 |
| Asian | 6.5 | 9.8 |
| American Indian | 0.4 | 0.3 |
| Eastern San Bernardino |  |  |
| Multiracial | 2.6 | 1.8 |
| White | 37.8 | 21.8 |
| Latino | 42.2 | 59.1 |
| African American | 12.1 | 11.0 |
| Asian | 4.6 | 5.2 |
| American Indian | 0.6 | 0.6 |
| Multiracial | 2.7 | 2.4 |
| SOURCES: California Department of Finance estimates |  |  |
| for July 1, 2000, and authors' projections for 2015. |  |  |
| NOTE: Asian includes Pacific Islander. |  |  |

reaching adulthood in very large numbers. To a large degree, it will be the success—both educational and economic—of these second-generation immigrants that will determine the future of the Inland Empire.

Table 4.5.
Projected Percentage of Foreign-Born Residents in the Inland Empire, by Ethnicity, 2005 and 2015

|  | 2005 | 2015 |
| :--- | ---: | ---: |
| White | 4.5 | 4.8 |
| Latino | 36.0 | 34.6 |
| African American | 3.1 | 2.9 |
| Asian | 63.0 | 60.7 |
| American Indian | 2.6 | 2.8 |
| Multiracial | 13.3 | 13.3 |
| Total | 21.2 | 24.1 |

SOURCE: Authors' projections for 2005 and 2015 NOTE: Asian includes Pacific Islander.

## 5. Education and Economic Projections

Despite strong population and job growth, the Inland Empire has continued to be a region with per-capita income and worker earnings well below state and national averages. The future socioeconomic conditions in the region depend largely on the education and skills of its workers, as well as on the employment opportunities available to them. We begin this chapter with a discussion of education projections for the region. We then turn to economic projections and their implications for the demand for workers by education level. Combining these projections, we find that despite slight increases in the share of college graduates, the region's jobs and workers will still lag behind the rest of the state with respect to educational attainment. We conclude with a brief discussion of the implications of this mismatch for policies seeking to expand economic opportunities in the region.

## Education Projections

Educational attainment among large populations typically changes very slowly over decades, even in regions of rapid population growth and in-migration. Between 1990 and 2005, the education levels of Inland Empire adults (ages 25-64) have changed only slightly (Table 5.1). During this period, almost one-quarter of adults had not finished high school and fewer than one in five adults had a bachelor's degree or more. The striking difference between the Inland Empire and the state is the low share of college graduates in the region. In 2005, the share of college graduates was more than 1.5 times higher in the state (31\%) than in the Inland Empire (19\%, Table 5.1).

Since 2000, there has been tremendous growth in domestic migration to the Inland Empire. The educational attainment levels of these migrants differ somewhat from those of previous migrants, with slightly higher shares of college graduates. Overall, then, among adults ages $25-64$, we forecast some increases in educational attainment levels in the Inland

Table 5.1
Percentage Distribution of Educational Attainment Among Adults: Trends and Projections, 1990-2015

|  | Less Than High <br> School Diploma | High School <br> Diploma | Some <br> College | Bachelor's <br> Degree | Graduate <br> Degree |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Inland Empire |  |  |  |  |  |
| 1990 | 22 | 26 | 36 | 10 | 5 |
| 2000 | 24 | 24 | 35 | 11 | 6 |
| 2005 | 23 | 26 | 33 | 13 | 6 |
| 2015 | 22 | 29 | 28 | 15 | 6 |
| California |  |  |  |  |  |
| 2000 | 21 | 21 | 33 | 17 | 9 |
| 2005 | 22 | 19 | 31 | 18 | 10 |
|  | 19 | 21 | 29 | 20 | 11 |

SOURCES: Authors' calculations based on the 1990 and 2000 Censuses and projections for 2005 and 2015. State estimates for 2005 are based on the American Community Survey.
NOTES: The table includes adults ages 25-64. Columns may not sum to 100 percent because of rounding. See Appendix A for details of the projections method.

Empire. ${ }^{1}$ In absolute numbers, we forecast strong growth in the population at each level of education. However, because growth will be slightly higher among adults with a college degree, we forecast a small shift toward a more educated population. Specifically, the share of Inland Empire adults with less than a high school diploma is expected to decline slightly to 22 percent and the share with at least a bachelor's degree is expected to increase from 19 percent to 21 percent.

One reason for the slow progress in educational attainment among working-age adults is that the best-educated residents of the Inland Empire are older adults who may retire between now and 2015. In 2005, adults 50-64 years old were the best-educated age group in the Inland Empire, with more than 20 percent holding college degrees (Figure 5.1). This pattern is consistent with national figures and has been attributed partially to the effect of the Vietnam War draft from which college students were

[^13]

SOURCE: Authors' projections.

Figure 5.1—Percentage Distribution of Educational Attainment in the Inland Empire, by Age Group, 2005
exempted (Card and Lemieux, 2001). As relatively well-educated older workers retire and leave the labor force, they will be replaced by slightly less-educated younger cohorts. Our projections suggest that relatively highly educated domestic migrants will prevent the Inland Empire from experiencing declines in educational attainment. Still, by 2015, the share of adults with a college degree in the region will remain far lower than in the state as a whole, and the oldest cohort will still have the highest share of college graduates (Table 5.2).

Our projections indicate improvements in educational outcomes for all of the largest ethnic groups in the region. Most notably, the educational attainment of Latinos, the largest and fastest-growing group among young adults, increases slightly between 2005 and 2015. The share of college graduates among Latinos ages 25-64 increases from 7.7 percent in 2005 to 10.4 percent in 2015 . The share that has not graduated from high school declines from 44 percent in 2005 to 39 percent in 2015. These improvements partly arise from a shift in the Latino population away from first-generation immigrants to U.S.-born natives. In 2005, 57 percent

Table 5.2

> Projected Percentage Distribution of Educational Attainment, by Age Group, 2015

| Age Group | 8th Grade <br> or Less | Some High <br> School | High School <br> Graduate | Some <br> College | Bachelor's <br> Degree | Graduate <br> Degree |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| $25-34$ | 7 | 14 | 30 | 27 | 16 | 5 |
| $35-44$ | 8 | 16 | 29 | 28 | 14 | 4 |
| $45-54$ | 12 | 14 | 27 | 28 | 13 | 6 |
| $55-64$ | 10 | 10 | 24 | 33 | 15 | 8 |

SOURCE: Authors' projections.
NOTE: Rows may not sum to 100 percent because of rounding.
of Latinos ages 25 and over in the Inland Empire were foreign-born; we project that by 2015, that share will decline to 53 percent. Because U.S.born Latinos have substantially better educational outcomes than foreignborn Latinos, this shift leads to overall improvements in educational attainment among Latinos.

Despite this improvement, Latino education levels will remain substantially below those of other groups. For example, more than half of Asian and Pacific Islanders are projected to be college graduates, as are 27 percent of whites, 18 percent of African Americans, and 17 percent of American Indians. Thus, as Latinos become a larger share of the population, aggregate educational attainment will be dampened. In 2015, Latinos will make up 50 percent of adults ages 25-64, compared to 40 percent in 2005.

Large differences in educational attainment among the subregions of the Inland Empire are expected to persist, although differences between Riverside County and San Bernardino County will remain minimal. In every subregion, the population at every educational level is expected to grow. However, because of differential rates of growth across education groups and subregions, we project differential changes in the distribution of education by subregion (Table 5.3).

The Coachella Valley will continue to have the highest share of adults with college degrees but will also have a substantial share of adults without a high school diploma. This reflects the bifurcated nature of migration to the Coachella Valley, with relatively well-educated older adults moving

Table 5.3

## Percentage Distribution of Subregion Educational <br> Attainment: Trends and Projections

| Educational Attainment | 1990 | 2000 | 2015 |
| :---: | :---: | :---: | :---: |
| Coachella Valley |  |  |  |
| No high school diploma | 30.4 | 27.8 | 18.9 |
| High school graduate | 23.2 | 22.0 | 28.0 |
| Some college | 30.4 | 30.3 | 24.4 |
| Bachelor's degree | 10.5 | 12.4 | 19.5 |
| Graduate degree | 5.5 | 7.5 | 9.2 |
| Northwestern Riverside |  |  |  |
| No high school diploma | 23.9 | 26.3 | 25.4 |
| High school graduate | 26.5 | 24.1 | 27.3 |
| Some college | 34.6 | 33.6 | 27.2 |
| Bachelor's degree | 9.9 | 10.3 | 14.0 |
| Graduate degree | 5.1 | 5.6 | 6.1 |
| San Jacinto Valley |  |  |  |
| No high school diploma | 30.0 | 24.4 | 17.7 |
| High school graduate | 29.5 | 29.2 | 35.1 |
| Some college | 29.8 | 33.7 | 31.0 |
| Bachelor's degree | 6.7 | 7.6 | 10.7 |
| Graduate degree | 4.0 | 5.0 | 5.6 |
| Southwestern Riverside |  |  |  |
| No high school diploma | 19.9 | 16.1 | 9.6 |
| High school graduate | 27.6 | 25.5 | 29.6 |
| Some college | 36.9 | 39.8 | 33.4 |
| Bachelor's degree | 11.1 | 13.0 | 20.3 |
| Graduate degree | 4.5 | 5.7 | 7.1 |
| High Desert |  |  |  |
| No high school diploma | 24.2 | 21.9 | 19.2 |
| High school graduate | 32.3 | 29.8 | 33.4 |
| Some college | 33.0 | 37.0 | 35.2 |
| Bachelor's degree | 6.9 | 7.3 | 8.5 |
| Graduate degree | 3.6 | 4.0 | 3.7 |

Table 5.3 (continued)

| Educational Attainment | 1990 | 2000 | 2015 |
| :--- | ---: | ---: | ---: |
| Western San Bernardino |  |  |  |
| No high school diploma | 24.5 | 27.4 | 25.5 |
| High school graduate | 25.4 | 23.0 | 27.2 |
| Some college | 34.8 | 32.4 | 26.0 |
| Bachelor's degree | 10.8 | 11.9 | 15.9 |
| Graduate degree | 4.5 | 5.2 | 5.4 |


| Eastern San Bernardino |  |  |  |
| :--- | ---: | ---: | ---: |
| No high school diploma | 26.4 | 28.3 | 28.4 |
| High school graduate | 25.4 | 24.4 | 28.7 |
| Some college | 31.7 | 31.0 | 27.2 |
| Bachelor's degree | 10.1 | 10.0 | 10.2 |
| Graduate degree | 6.4 | 6.3 | 5.5 |

SOURCES: 1990 and 2000 Censuses and authors' projections for 2015.
to the subregion's resort communities and relatively poorly educated immigrants moving there for low-skilled jobs in the service and agricultural sectors of the economy.

In the Northwestern Riverside subregion, the share of adults without a high school diploma will remain at high levels. At the same time, the number of college graduates is projected to increase and their share of all adults will reach one in five by 2015. During this current decade, increases in education have been most notable in the city of Riverside and are undoubtedly related to the presence of UC Riverside. A new medical school at UC Riverside could lead to even greater increases than those projected.

In contrast to Northwestern Riverside, the San Jacinto Valley will continue to experience large declines in the share of adults who have not completed high school and will gain large numbers of high school graduates. In 1990, among all Inland Empire subregions, the San Jacinto Valley had the highest share of adults who had not completed high school, partly a reflection of the importance of agriculture in the subregion then. By 2000, that share had fallen below the county average as the San Jacinto Valley became more urbanized. Although the share of college graduates is projected to increase in the subregion, the subregion will continue to have
the lowest share of college graduates among all the subregions in Riverside County.

The Southwestern Riverside subregion will experience large gains among adults who have graduated from college. These strong gains occur as many San Diego County residents move to Southwestern Riverside for larger, more affordable housing. As with the Northern San Joaquin Valley, a region in Northern California that has grown dramatically with Bay Area commuters, these new residents are relatively highly educated. By 2015, more than one in four adults ages 25-64 in Southwestern Riverside will have a college degree.

The High Desert subregion of San Bernardino County will also see strong growth at all education levels, perhaps because housing prices in the High Desert are among the lowest in the Inland Empire. However, the subregion will continue to have the lowest share of college graduates of any of the Inland Empire subregions.

The Western San Bernardino subregion will experience large gains in the number of college graduates. We project that in 2015, Western San Bernardino will have the highest share of college graduates in San Bernardino County but will still have a large share of adults who have not completed high school.

Finally, in the Eastern San Bernardino subregion, we project little change in educational attainment. In 2015 as today, the number of adults without a high school diploma will be almost double the number of college graduates.

## Employment Projections

Projections for the next decade suggest that job growth in the Inland Empire will continue to outpace that in the state as a whole. By 2015, the Inland Empire is expected to have almost 1.5 million nonfarm, civilian jobs-up about 28 percent from fewer than 1.2 million such jobs in 2004. ${ }^{2}$

[^14]Statewide over the same period, the number of jobs is expected to grow by about 20 percent to 17.4 million in 2015.

Employment is projected to grow in every industry (except federal government employment) and in every subregion. To characterize the shift in the distribution of employment by industry, we examine whether each major industry is large enough and expected to grow enough that its share in overall employment will grow. By this measure, administrative services is the most important growth industry in the Inland Empire. ${ }^{3}$ Between 2005 and 2015, this industry is expected to grow from 85,800 jobs to 121,300 jobs. In 2005, it made up just over 7 percent of all jobs in the Inland Empire and the share is expected to grow to over 8 percent by 2015 (Table 5.4). The next most important growth industries for the Inland Empire are wholesale trade-expected to grow from 4.0 percent to 4.4 percent of all employment-and transportation and warehousingexpected to increase from 4.4 to 4.8 percent of all employment. By contrast, durable manufacturing and state and local government are each expected to decline in share by more than a percentage point.

Statewide, the expected changes in employment by industry show some patterns similar to those in the Inland Empire, including the growth in administrative services and the decline in durable manufacturing (see Appendix Table B.5). However, the statewide figures show much stronger growth in health care and social assistance, not as much growth in transportation and warehousing, and not as much decline in state and local government.

The industry projections are important for the education needs of the future labor market because the industries differ in their demand for skills. For example, in administrative services in 2005, 38 percent of workers had less than a high school diploma compared to the cross-industry average of 21 percent for the Inland Empire (Table 5.5). Furthermore, only 8 percent of administrative and support services workers had bachelor's degrees, compared to 18 percent overall. The projection that this will be the most important growth industry in the Inland Empire implies that employment in the region will not dramatically shift toward higher-skilled workers. In

[^15]Table 5.4

## Projected Employment Growth in the Inland Empire, by Industry, 2005 and 2015

| Industry | Employment (thousands) |  |  | Percentage Shares of Employment |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 2015Change <br> $(\%)$ |  | Change |  |  |
|  | 2005 |  |  | 2005 | 2015 | (\%) |
| Administrative services | 85.8 | 121.3 | 41.4 | 7.2 | 8.1 | 0.9 |
| Wholesale trade | 47.2 | 66.2 | 40.3 | 4.0 | 4.4 | 0.5 |
| Transportation and warehousing | 52.1 | 71.0 | 36.3 | 4.4 | 4.8 | 0.4 |
| Construction | 114.8 | 149.2 | 30.0 | 9.7 | 10.0 | 0.3 |
| Professional, scientific, and technical services | 32.0 | 43.9 | 37.2 | 2.7 | 2.9 | 0.3 |
| Accommodation and food services | 104.0 | 134.1 | 28.9 | 8.8 | 9.0 | 0.2 |
| Retail trade | 157.5 | 200.4 | 27.2 | 13.3 | 13.5 | 0.2 |
| Private education services | 13.7 | 17.4 | 27.0 | 1.2 | 1.2 | 0.0 |
| Mining | 1.2 | 1.6 | 33.3 | 0.1 | 0.1 | 0.0 |
| Arts, entertainment, and recreation | 15.6 | 19.3 | 23.7 | 1.3 | 1.3 | 0.0 |
| Utilities | 5.1 | 5.9 | 15.7 | 0.4 | 0.4 | 0.0 |
| Real estate, rental and leasing | 18.0 | 21.5 | 19.4 | 1.5 | 1.4 | -0.1 |
| Information | 14.2 | 16.7 | 17.6 | 1.2 | 1.1 | -0.1 |
| Finance and insurance | 28.5 | 34.3 | 20.4 | 2.4 | 2.3 | -0.1 |
| Health care and social assistance | 107.2 | 132.9 | 24.0 | 9.0 | 8.9 | -0.1 |
| Management | 11.7 | 12.9 | 10.3 | 1.0 | 0.9 | -0.1 |
| Other services | 40.1 | 48.5 | 20.9 | 3.4 | 3.3 | -0.1 |
| Federal government | 17.3 | 17.1 | -1.2 | 1.5 | 1.1 | -0.3 |
| State and local government | 199.1 | 244.5 | 22.8 | 16.8 | 16.4 | -0.4 |
| Nondurable manufacturing | 34.9 | 37.9 | 8.6 | 2.9 | 2.5 | -0.4 |
| Durable manufacturing | 86.1 | 92.0 | 6.9 | 7.3 | 6.2 | -1.1 |

SOURCES: Authors' calculations based on California Employment Development Department industry projections for 2004-2014.
NOTE: See Appendix A for details on data and methods.
general, the fastest-growing industries in the Inland Empire do not require high levels of education. Of the seven industries projected to grow as a share of total employment in the region, only one-professional, scientific, and technical services-requires a large share of college graduates.

Table 5.5
Percentage Distribution of Workforce Education in the Inland Empire, by Industry, 2005 and 2015

| Industry | Less Than High School Diploma |  | Bachelor's Degree or Higher |  |
| :---: | :---: | :---: | :---: | :---: |
|  | 2005 | 2015 | 2000 | 2015 |
| Administrative services | 38 | 39 | 8 | 13 |
| Wholesale trade | 22 | 14 | 13 | 16 |
| Transportation and warehousing | 23 | 24 | 7 | 8 |
| Construction | 39 | 41 | 6 | 8 |
| Professional, scientific, and technical services | 5 | 0 | 32 | 30 |
| Accommodation and food services | 35 | 27 | 6 | 8 |
| Retail trade | 18 | 14 | 9 | 11 |
| Private education services | 3 | 0 | 42 | 35 |
| Mining | 17 | 16 | 7 | 4 |
| Arts, entertainment, and recreation | 17 | 3 | 19 | 31 |
| Utilities | 3 | 0 | 13 | 15 |
| Real estate, rental and leasing | 14 | 8 | 15 | 18 |
| Information | 9 | 4 | 17 | 19 |
| Finance and insurance | 4 | 0 | 20 | 20 |
| Health care and social assistance | 9 | 6 | 27 | 31 |
| Management | 0 | 0 | 31 | 35 |
| Other services | 26 | 21 | 12 | 10 |
| Federal government | 5 | 4 | 24 | 28 |
| State and local government | 5 | 3 | 44 | 48 |
| Nondurable manufacturing | 31 | 18 | 10 | 7 |
| Durable manufacturing | 33 | 32 | 11 | 10 |

SOURCES: Authors' calculations and projections based on the 2000 Census and the 2005 and 2006 American Community Surveys.

Increases in skill levels within industries are a more important trend than shifts in industrial employment. Most of the growth industries in the Inland Empire will require a relatively small but growing share of college graduates. This trend, toward upgrading of skills within industries, is found statewide (see Appendix Table B.6).

Combining the industrial shifts (Table 5.4) with the education level of workers (Table 5.5) provides a picture of the workforce education needs in
2015. Several of the industrial trends will shift employment toward loweducation workers: growth in the shares of employment in administrative services, transportation and warehousing, and construction, along with a decline in the share of employment in state and local government. Countering this, the decline in manufacturing shifts employment away from low-education workers. Taking into account the full range of industry and education shifts, we find that employment in the Inland Empire will shift toward workers with a high school diploma and away from workers with less education (Table 5.6). ${ }^{4}$

Table 5.6

> Percentage Distribution of Employers' Demand for Education, $$
2005 \text { and } 2015
$$

|  | Less Than <br> High School <br> Diploma | High School <br> Diploma | Some <br> College | Bachelor's <br> Degree | Graduate <br> Degree |
| :--- | :---: | :---: | :---: | :---: | :---: |
| 2005 | 20.6 | 29.2 | 32.1 | 11.5 | 6.6 |
| 2015 | 17.7 | 36.3 | 25.7 | 12.8 | 7.5 |
| 2015 alt. | 20.8 | 29.3 | 32.0 | 11.4 | 6.5 |
| California |  |  |  |  |  |
| 2005 | 15.9 | 22.7 | 31.1 | 20.0 | 10.4 |
| 2015 | 12.5 | 29.1 | 25.3 | 21.4 | 11.7 |
| 2015 alt. | 15.9 | 22.6 | 31.1 | 20.0 | 10.5 |

SOURCES: Authors' calculations and projections based on the 2000 Census, the 2005 and 2006 American Community Surveys, and the California Employment Development Department industry projections for 2004-2014.
NOTES: Alternative projections for 2015 are based on the projected industry distribution in 2015 and the education distribution within each industry in 2005. These alternative projections are provided to demonstrate the importance of the shift toward higher-educated workers within industries.

[^16]Workforce education projections for the Inland Empire are very sensitive to the assumption that the 2000-2005 shifts in education within industries will continue. If each industry were to employ workers in 2015 with the same educational distribution as its 2005 workers, the overall distribution of workers' education would be about the same in 2015 as in 2005 (Table 5.6, alternative projections).

Thus, the shift in education demand in the region primarily results from the growth in the use of workers with a high school diploma within several industries, rather than from a shift between industries. The alternative projections are provided to illustrate this point and are therefore not taken as our primary projections. Indeed, we have no reason to expect that the 2000-to-2005 shifts in education within the major industries will abate completely over the next decade. The more realistic projections are those that show the economy of the Inland Empire moving away from employment of workers who have not earned a high school diploma.

The demand for workers with a college degree is expected to increase from roughly 18 percent to 20 percent of workers. State and local government is the most important industry for the growth in demand for college-educated workers. Although growth in this sector as a whole will not keep pace with overall regional growth, local government employment in education is projected to grow substantially. Growth in teacher employment drives a shift toward college-educated workers in that sector.5 The second most important industry in the growing demand for collegeeducated workers is administrative and support services. Although this industry employs a relatively low share of college-educated workers, the industry is shifting toward employing more such workers. Finally, some high-education occupations are growing across industrial sectors: business operations occupations such as management analysts and accountants as well as computer-related specialists. ${ }^{6}$

[^17]By comparison, projections for the state as a whole suggest that employment will move more rapidly toward workers with a bachelor's degree or higher. Statewide industry projections show growth in health care and social assistance, growth in private education services, and only small declines in state and local government-all industries that employ college-educated workers. However, the main reason for the projected increase in the demand for more educated workers statewide is the upward shift in education within industries (see Appendix Tables B. 5 and B.6). Within most California industries, there has been an increase in the share of workers with a bachelor's degree; should this trend continue, it would substantially increase the demand for college-educated workers statewide.

Before turning to the implications of these findings, we examine industry projections for the subregions of the Inland Empire. These projections use the California Employment Development Department industry projections for the Inland Empire but allocate industrial growth to the subregions according to each subregion's industry employment growth pattern from 2001 to 2004 (see Appendix A for details). In general, the subregions share the same patterns of industrial growth and decline as found for the Inland Empire region (Table 5.7). ${ }^{7}$ Administrative services is projected to be the most important growth industry in each of the subregions. Growth in transportation and warehousing is more important in the San Bernardino areas and Northwestern Riverside. The accommodation and food services sector is projected to grow throughout the Inland Empire, whereas retail trade increases most rapidly in the San Jacinto Valley, Southwestern Riverside, and the High Desert. Construction is a strong growth industry in the San Jacinto Valley, the only subregion expected to experience an increase in population growth rates. Each of the subregions shows a decline in the share of employment in manufacturingthis is particularly large in Western San Bernardino.

As was found for the Inland Empire as an aggregate region, in each subregion the projected changes in industrial employment will tend to shift employment toward high-education workers (Table 5.8).

[^18]Table 5.7
Projected Percentage Change in Employment Share, by Industry and Subregion, 2005-2015

| Industry | Coachella Valley | Northwestern Riverside | San Jacinto Valley | Southwestern Riverside | High <br> Desert | Western San Bernardino | Eastern San Bernardino |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Administrative services | 0.7 | 0.8 | 0.6 | 1.1 | 0.7 | 1.4 | 0.6 |
| Wholesale trade | 0.2 | 0.4 | 0.3 | 0.4 | 0.2 | 0.8 | 0.2 |
| Transportation and warehousing | 0.0 | 0.3 | 0.1 | 0.1 | 0.0 | 0.8 | 0.3 |
| Construction | 0.2 | 0.6 | 0.6 | 0.3 | 0.3 | 0.2 | 0.3 |
| Professional, scientific, and technical services | 0.2 | 0.3 | 0.1 | 0.3 | 0.2 | 0.2 | 0.3 |
| Accommodation and food services | 0.3 | 0.2 | 0.3 | 0.3 | 0.3 | 0.1 | 0.2 |
| Retail trade | 0.1 | 0.2 | 0.3 | 0.3 | 0.4 | 0.0 | 0.2 |
| Private education services | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 |
| Mining | N/A | 0.0 | N/A | 0.0 | 0.0 | 0.0 | 0.0 |
| Arts, entertainment, and recreation | -0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Utilities | 0.0 | 0.0 | 0.0 | N/A | 0.0 | 0.0 | 0.0 |
| Real estate, rental and leasing | -0.2 | -0.1 | -0.1 | -0.1 | -0.1 | -0.1 | -0.1 |
| Information | -0.1 | -0.1 | 0.0 | -0.1 | -0.2 | -0.1 | -0.1 |
| Finance and insurance | -0.1 | -0.1 | -0.1 | -0.1 | -0.1 | -0.1 | -0.1 |
| Health care and social assistance | -0.2 | -0.1 | -0.1 | 0.0 | -0.1 | -0.1 | -0.2 |
| Management | -0.1 | -0.2 | N/A | N/A | 0.0 | -0.1 | -0.2 |
| Other services | -0.2 | -0.1 | -0.1 | -0.1 | -0.1 | -0.1 | -0.1 |
| Federal government | -0.1 | -0.1 | -0.1 | -0.1 | -0.1 | 0.0 | -0.3 |

Table 5.7 (continued)

| Industry | Coachella Valley | Northwestern Riverside | San Jacinto Valley | Southwestern Riverside | High Desert | Western San Bernardino | Eastern San Bernardino |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| State and local government | -0.3 | -0.6 | -0.4 | -0.6 | -0.4 | -0.3 | -0.3 |
| Manufacturing | -0.4 | -1.6 | -1.2 | -1.6 | -1.0 | -2.4 | -0.8 |

SOURCES: Authors' calculations based on California Employment Development Department industry estimates and projections. NOTES: N/A identifies industry and subregion combinations where data are not available. These industries have few employers and employment data were suppressed by the California Employment Development Department to protect confidentiality.

Table 5.8
Percentage Distribution of Employers' Demand for Education, by Subregion, 2005 and 2015

|  | Less Than High School Diploma | High School Diploma | Some College | Bachelor's Degree | Graduate Degree |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Coachella Valley |  |  |  |  |  |
| 2005 | 22.1 | 29.8 | 31.7 | 10.7 | 5.7 |
| 2015 | 18.5 | 37.3 | 25.1 | 12.5 | 6.6 |
| 2015 alt. | 22.4 | 29.8 | 31.6 | 10.6 | 5.6 |
| Northwestern Riverside |  |  |  |  |  |
| 2005 | 19.9 | 28.1 | 31.9 | 12.2 | 7.8 |
| 2015 | 17.5 | 34.7 | 25.6 | 13.3 | 9.0 |
| 2015 alt. | 20.1 | 28.2 | 31.8 | 12.1 | 7.7 |
| San Jacinto Valley |  |  |  |  |  |
| 2005 | 18.6 | 27.7 | 32.8 | 12.7 | 8.2 |
| 2015 | 15.6 | 34.1 | 26.9 | 14.0 | 9.5 |
| 2015 alt. | 18.8 | 27.8 | 32.7 | 12.6 | 8.1 |
| Southwestern Riverside |  |  |  |  |  |
| 2005 | 22.6 | 29.8 | 31.0 | 10.7 | 5.8 |
| 2015 | 19.6 | 37.1 | 24.5 | 12.2 | 6.6 |
| 2015 alt. | 22.8 | 29.9 | 31.0 | 10.7 | 5.7 |
| High Desert |  |  |  |  |  |
| 2005 | 19.4 | 29.1 | 33.0 | 11.6 | 6.9 |
| 2015 | 16.2 | 36.0 | 27.1 | 12.8 | 8.0 |
| 2015 alt. | 19.5 | 29.2 | 32.9 | 11.5 | 6.8 |
| Western San Bernardino |  |  |  |  |  |
| 2005 | 23.3 | 31.2 | 30.9 | 9.9 | 4.7 |
| 2015 | 20.3 | 39.2 | 24.0 | 11.5 | 5.1 |
| 2015 alt. | 23.4 | 31.3 | 30.9 | 9.9 | 4.5 |
| Eastern San Bernardino |  |  |  |  |  |
| 2005 | 16.1 | 26.3 | 34.2 | 13.9 | 9.5 |
| 2015 | 13.5 | 32.4 | 28.5 | 14.8 | 10.9 |
| 2015 alt. | 16.3 | 26.4 | 34.1 | 13.8 | 9.3 |

SOURCES: Authors' calculations and projections based on the 2000 Census, the 2005 and 2006 American Community Surveys, and California Employment Development Department industry estimates and projections for 2001-2014.

## Skills Gaps

By comparing the projected education levels of Inland Empire adults in 2015 to the projected labor market education needs, we can examine whether there is likely to be a mismatch in skills. For the Inland Empire as a whole, the educational attainment of the adult population is projected to increase slightly, as are the educational demands of employers. Overall, then, the modest demands for slightly more workers with college degrees (bachelor's degree or higher) seem likely to be met by an increase in the supply of such workers. The share of adults with at least a bachelor's degree ( $20.6 \%$ ) is expected to nearly match the employment demand for that skill level ( $20.3 \%$, Table 5.9). However, at the low end of the educational spectrum, there does appear to be a mismatch. The share of employment appropriate for workers with less than a high school diploma ( $17.7 \%$ ) is expected to be lower than the share of adults with less than a high school diploma ( $22.1 \%$ ). In other words, finding a job for those without a high school diploma will be even more difficult in the future than now.

These projections for the Inland Empire are somewhat different from projections for California. Statewide projections suggest a notable mismatch, with too few college graduates. Employers will be looking for increasingly higher skills (as shown in Table 5.6) and the education of adults will not increase enough to meet employer demands (Hanak and Baldassare, 2005; Johnson and Reed, 2007).

A closer look at the subregions of the Inland Empire reveals substantial variation in the magnitude and nature of the skills match, or lack thereof, between employer needs and the population supply of workers. Of course, it is important to take these mismatches with a grain of salt. For the most part, the subregions are not separate labor markets. Extensive commuting between the subregions can and does alleviate some mismatches at a given education level.

Projections for the Coachella Valley reflect the slight regional shift toward employment for more highly educated workers. The projections suggest an increase in demand for high-skill workers, but the share of the population with college degrees will remain higher. This seeming mismatch may not be cause for concern, however-the region has long attracted college-educated early retirees and semi-retired people, many of

Table 5.9

## Percentage Distribution of Educational Attainment and Employers' Demand for Education, by Subregion, 2015

| Subregion | Less Than High School Diploma | High School Diploma | Some College | Bachelor's Degree | Graduate Degree |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Inland Empire |  |  |  |  |  |
| Adult population | 22.1 | 29.0 | 28.3 | 14.6 | 6.0 |
| Employer needs | 17.7 | 36.3 | 25.7 | 12.8 | 7.5 |
| Coachella Valley |  |  |  |  |  |
| Adult population | 18.9 | 28.0 | 24.4 | 19.5 | 12.2 |
| Employer needs | 18.5 | 37.3 | 25.1 | 12.5 | 6.6 |
| Northwestern Riverside |  |  |  |  |  |
| Adult population | 25.4 | 27.3 | 27.2 | 14.0 | 6.1 |
| Employer needs | 17.5 | 34.7 | 25.6 | 13.3 | 9.0 |
| San Jacinto Valley |  |  |  |  |  |
| Adult population | 17.7 | 35.1 | 31.0 | 10.7 | 5.6 |
| Employer needs | 15.6 | 34.1 | 26.9 | 14.0 | 9.5 |
| Southwestern Riverside |  |  |  |  |  |
| Adult population | 9.6 | 29.6 | 33.4 | 20.3 | 7.1 |
| Employer needs | 19.6 | 37.1 | 24.5 | 12.2 | 6.6 |
| High Desert |  |  |  |  |  |
| Adult population | 19.2 | 33.4 | 35.2 | 8.5 | 3.7 |
| Employer needs | 16.2 | 36.0 | 27.1 | 12.8 | 8.0 |
| Western San Bernardino |  |  |  |  |  |
| Adult population | 25.5 | 27.2 | 26.0 | 15.9 | 5.4 |
| Employer needs | 20.3 | 39.2 | 24.0 | 11.5 | 5.1 |
| Eastern San Bernardino |  |  |  |  |  |
| Adult population | 28.4 | 28.7 | 27.2 | 10.2 | 5.5 |
| Employer needs | 13.5 | 32.4 | 28.5 | 14.8 | 10.9 |

SOURCES: Authors' calculations and projections based on the 2000 Census, the 2005 and 2006 American Community Surveys, and California Employment Development Department industry projections for 2004-2014.
whom are still of working age. These highly educated people appear in the working-age population projections but may not be full participants in the job market. Unlike in the region as a whole, the share of jobs for workers
with less than a high school diploma is expected to be similar to the share of adults at that education level.

The Northwestern Riverside area, which includes the city of Riverside, is also projected to shift toward more high-education jobs, whereas the high share of the adult population with less than a high school diploma is expected to decline only slightly. By 2015, this area is expected to have a surplus of poorly educated workers and a deficit of high school graduates.

By contrast, the Southwestern Riverside area is projected to have a very significant mismatch at the other end of the education spectrum, with an abundance of low-skill jobs and a deficit of jobs for college graduates. This mismatch was already substantial in 2000 but is projected to become even greater. Undoubtedly, some of these low-skill jobs will be filled by residents of Northwestern Riverside. The surplus of college graduates exists in large part because high shares of college-educated residents of this subregion commute to San Diego or Orange Counties.

Like Northwestern Riverside, the San Jacinto Valley subregion is projected to have more residents who have not finished high school than jobs at that education level and a deficit of workers with a college degree. The projections suggest that this mismatch will occur even as the share of residents with low education declines. The relatively low cost of housing in the area attracts lower- to middle-income residents who commute to other locations in the Inland Empire, or even to coastal counties, and middleincome early retirees. These patterns are also found in the High Desert region of San Bernardino County.

Eastern San Bernardino, including the city of San Bernardino, is another area in which the labor market demand for college-educated workers is expected to exceed the supply, and the demand for workers with less than a high school diploma is expected to be much lower than the supply of such workers. This mismatch was already apparent in the area in 2000. The large supply of workers with low levels of education is related to the city of San Bernardino's large and relatively less-expensive rental housing stock, which attracts lower-income and less-educated residents. ${ }^{8}$ The undersupply of college graduates reflects the subregion's status as an

[^19]employment center for college-educated workers from the surrounding areas. For example, Eastern San Bernardino attracts commuters from Western San Bernardino, a subregion that is projected to have too few jobs for college-educated residents. Like Southwestern Riverside, many college graduates in Western San Bernardino commute to either Los Angeles or Orange Counties.

## Commuting

Of course, it is important to keep in mind that some of the mismatches between jobs and workers are resolved partly through commuting. This is particularly true at the subregion level, as large flows of workers commute every day between these subregions.

But even for the Inland Empire as a whole, some of the mismatch between jobs in the region and the education of the region's residents persists because large shares of Inland Empire residents commute to jobs in coastal Southern California. Although job growth was strong in the Inland Empire between 2000 and 2005-2006, the rate of increase in commuting was also high (Figure 5.2). In 2000, 21 percent of the region's workers commuted to jobs outside the region; by 2005-2006, 20 percent of the region's workers commuted to jobs outside the region.

Most commuters who leave the Inland Empire go to jobs in Los Angeles County (53\%) or Orange County ( $31 \%$ ). However, the number of Inland Empire residents commuting to San Diego County more than doubled in only five years, and by 2005-2006, they accounted for 14 percent of all out-of-region commuters.

Moreover, commuters who leave the region tend to be the most highly educated residents of the Inland Empire: 26 percent of all college graduates in the labor force commute out of the region for work, compared to only 15 percent of workers who have not completed high school (Figure 5.3). Thus, the Inland Empire serves as an important source of highly educated workers for coastal Southern California.

## Expanding Opportunities

These projections have important implications for policymakers and others who seek to improve economic conditions in the Inland Empire. For


SOURCES: Authors' calculations based on the 2005 and 2006 American Community Surveys and the 2000 Census.

Figure 5.2-Percentage Change in the Number of Commuters in the Inland Empire, by Place of Work, 2000 to 2005-2006
the region as a whole, we see some improvements with a projected increase in both the share of jobs that require a college degree and increases in the educational attainment of the area's residents. This is good news, as these jobs will bring higher wages and better economic conditions for the region and will provide more local opportunities for employment for the large number of college graduates who currently commute to jobs in coastal counties.

However, the Inland Empire will continue to lag far behind the rest of the state and most other large metropolitan areas of the nation. The rather modest improvements we see with regard to jobs and education suggest that the gap between the Inland Empire and the rest of the state is unlikely to narrow any time soon. Instead, the Inland Empire will continue to attract jobs that typically do not require high levels of education. Of course, it is important to note that many jobs that do not require a college degree are relatively well remunerated. Some of these jobs fall under the category of "clean work, moderate pay" and "dirty work, moderate pay," according


SOURCES: Authors' calculations based on the 2005 and 2006 American Community Surveys.

Figure 5.3-Percentage of Inland Empire Workers Commuting Out of the Region, by Educational Attainment, 2005-2006
to local economist John Husing (Husing, 2007), and can be one part of a strong and vibrant local economy. Nonetheless, one of the primary challenges of economic development in the Inland Empire is the creation of high-paying jobs for college graduates.

Economic development efforts would do well to concentrate on encouraging local college graduates to establish new firms in the region. PPIC research has found that the vast majority of jobs that are created in the state derive from new firm creation rather than from firm migration (Kolko and Neumark, 2007). Rather than attracting firms from other locations, then, local officials might want to concentrate on growing new firms by retaining some of the region's highly educated college graduates likely to establish these firms and become employers.

At the other end of the educational attainment spectrum, the relative abundance of workers without a high school diploma presents a challenge for the region. At least part of the solution lies with the region's educational system. High school dropout rates in the Inland Empire are relatively
high: In 2004-2005, San Bernardino County's dropout rate was 20 percent, compared to 14 percent for Riverside County and 13 percent for the entire state. ${ }^{9}$ A further challenge is presented by the numbers of domestic and international migrants who arrive in the region as adults but lack a high school diploma. Programs to encourage college-going should be encouraged and evaluated. Expansions of local colleges, including the new medical school at UC Riverside, will offer more opportunities for local students and will attract highly educated faculty.

At the subregional level, local leaders have begun to implement their own concrete solutions to these potential problems. Local officials in the Coachella Valley have recognized the need to improve college-going opportunities by helping to establish satellite campuses of CSU San Bernardino as well as UC Riverside. These efforts are designed to be integrated into the local labor market by focusing on education in health care, a good fit with the subregion's large population of older residents, and are intended to encourage new opportunities with a focus on business and entertainment (specifically creative writing, including screenwriting). ${ }^{10}$

For Northwestern Riverside and Western San Bernardino, the projections suggest a dual strategy. Each region has a relatively large share of residents who have not finished high school. Education and workforce training will be particularly important for increasing their earnings potential. Workforce training should go hand-in-hand with economic development strategies that attract employers of higher-skilled workers. ${ }^{11}$ According to economic development professionals, efforts in this direction have begun to show signs of success in Western San Bernardino, as logistics and retail enterprises have given way to firms in the biotech, advanced manufacturing, homeland security, engineering, and architecture industries.

[^20]In Southwestern Riverside, the projected share of residents with a bachelor's degree exceeds the share of job opportunities for college-educated workers. College-educated workers are commuting from these areas to other areas of the Inland Empire and, more significantly, to coastal areas. In this subregion, economic development strategies could involve using the relatively highly educated population to attract employers.

## 6. Political Participation

As the Inland Empire continues on its course of phenomenal growth, voters in the region will be called on to plan for and shape growth through local policy decisions. In this region of rapid change, public investments and policy planning have the potential for tremendous effects on the lives of residents. The democratic ideal is that the residents of the region will determine the policies that help shape their future. Yet the concern in California and throughout the nation is that the voters are increasingly not representative of the people, particularly with respect to race and ethnicity. In this chapter, we develop projections to examine whether future Inland Empire voters are likely to be representative of the region's residents. Aside from voting, people engage and participate in political life in many ways. We also examine Inland Empire political participation beyond voting. ${ }^{1}$

## Citizenship, Voter Registration, and Voting

There are three links in the chain that connects the adult population to the voting population. The first is eligibility; only American citizens who have not been convicted of a felony are able to vote. According to the California Secretary of State's Office, about 474,000 Inland Empire adults (16\%) were ineligible to vote in 2007 , either because they were not citizens or because they had been convicted of a felony. Statewide, a higher share was ineligible to vote ( $18 \%$ ). To examine eligibility, we develop projections of the foreign-born population and the share of those who are naturalized citizens. We do not have data or projections for the convicted felon population.

The second link is registration; voters must register in advance of the election. Of Inland Empire adults who are eligible to vote, less than twothirds are registered (Table 6.1). This share (61\%) is somewhat lower than the share in California (69\%). We examine future voter registration by

[^21]Table 6.1
Number of Adults in the Population, by Voter Eligibility Status and Voter Registration Status, 2007

| Region | Adults | Eligible <br> to Vote | Registered <br> to Vote | $\%$ <br> Registered |
| :--- | ---: | ---: | ---: | :---: |
| Inland Empire | $2,917,027$ | $2,442,699$ | $1,488,630$ | 61 |
| California | $27,803,081$ | $22,768,146$ | $15,682,358$ | 69 |

SOURCES: California Department of Finance (2007) for number of adults ages 18 and older. California Secretary of State (2007) for eligibility and registration.
NOTES: The table reports the percentage registered as a share of the eligible population. The share registered among all adults was 51 percent in the Inland Empire and 56 percent statewide.
developing projections of the registered population as a share of the projected eligible population.

The final link is voting itself; only a fraction of registered voters actually vote. Among registered voters, those in the Inland Empire are less likely to vote than Californians statewide (Table 6.2). ${ }^{2}$ We examine patterns in voting behavior by race/ethnicity and other demographic characteristics, but we do not attempt to project who will vote in 2015. ${ }^{3}$

Among Latino and Asian adults, the share who are foreign-born is expected to decline as greater numbers of children born in the United States age into adulthood (Table 6.3). In addition, naturalization rates will improve for Latinos (by 6 percentage points) and for Asians (by 4 percentage points), primarily because in 2015 these immigrant populations

[^22]Table 6.2

## Percentage Distribution of Voting Among Registered Voters, by Region, 2002-2007

|  | Inland <br> Empire | Los <br> Angeles | South <br> Coast | Central <br> Valley | San <br> Francisco <br> Bay Area | California |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| Likely voter | 64 | 69 | 70 | 66 | 73 | 69 |
| How often do you vote? |  |  |  |  |  |  |
| $\quad$ Always | 61 | 61 | 67 | 68 | 69 | 66 |
| Nearly always | 25 | 26 | 22 | 20 | 22 | 23 |
| Part of the time | 9 | 9 | 7 | 7 | 6 | 7 |
| Seldom | 3 | 3 | 3 | 3 | 2 | 3 |
| Never | 2 | 2 | 2 | 2 | 1 | 2 |

SOURCE: Authors' calculations from the PPIC Statewide Surveys.
NOTES: "Likely voter" is constructed based on past voting, current interest, and voting intentions. Columns may not sum to 100 because of rounding.

## Table 6.3

Projected Percentage Distribution of Adult Citizenship, by Race/Ethnicity, 2005 and 2015

|  | Foreign-Born Share |  | Naturalization Rate |  | Citizen <br> Share |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2005 | 2015 | 2005 | 2015 | 2005 | 2015 |
| White | 5 | 6 | 64 | 66 | 98 | 98 |
| Latino | 52 | 47 | 31 | 37 | 65 | 70 |
| African American | 4 | 4 | 63 | 67 | 98 | 99 |
| Asian | 76 | 70 | 61 | 65 | 70 | 75 |
| Multiracial | 22 | 21 | 58 | 61 | 91 | 92 |
| Total | 27 | 30 | 40 | 44 | 84 | 83 |

SOURCE: Authors' projections for 2005 and 2015.
NOTES: The "naturalization rate" is the share of foreign-born who are naturalized citizens. The "citizen share" is the percentage of adults who are citizens. Asian includes Pacific Islanders.
will be made up of somewhat older adults who have been in the United States longer. Taken together, the growing share born in the United States and the higher naturalization rates among the foreign-born likely will
increase citizenship levels for Latinos to 70 percent and for Asians to 75 percent. However, in aggregate, the share of Inland Empire adults who are citizens likely will remain stable at about 83 percent. This occurs primarily because improvements in citizenship levels among Latinos and Asians will be countered by a shifting of the population toward these two groups that will continue to have low citizenship rates relative to whites.

Low rates of naturalization among Latinos are partly, if not largely, attributable to legal status. Undocumented immigrants are not eligible for citizenship without first changing to legal status. Although we cannot distinguish between legal immigrants and undocumented immigrants in our data, it is likely that well over 100,000 Latino immigrants in the Inland Empire in 2000 were undocumented. It is possible, then, that among those eligible (legal permanent residents), naturalization rates might not be so different between Latinos and other groups. Our projections do not take into account potential changes in legalization status that might result from federal immigration policy reform.

Among citizens, both U.S.-born and naturalized, we forecast that voter registration rates will improve somewhat for each racial and ethnic group (Table 6.4). Combined with the increase in citizenship among Latinos and Asians, a higher share of these groups will be registered to vote. Among Latino adults, the share registered is projected to increase from 34 percent to 38 percent. Among Asian adults, the share registered is projected to increase from 38 percent to 44 percent.

Although we project improvement, the shares of Latinos and Asians who are registered voters will remain substantially lower than the shares for other groups. These lower shares translate into underrepresentation in the registered voter population (Table 6.5). Nearly half of adults will be Latino, but only about one-third of registered voters will be Latino. Conversely, just over one-third of adults will be white, whereas nearly half of registered voters will be white. The underrepresentation of Latino and Asian adults in the registered voter population in 2015 will be only slightly improved from the 2005 distribution.

In the Inland Empire, and throughout California, white registered voters are more likely to vote than are registered voters from other racial and ethnic groups. Among whites, 69 percent of registered voters are

Table 6.4

> Projected Percentage Distribution of Voter Registration, by Race/Ethnicity, 2005 and 2015

|  | Citizen Share |  |  | Registration Rate |  |  | Share Registered |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2005 | 2015 |  | 2005 | 2015 |  | 2005 | 2015 |
| White | 98 | 98 |  | 74 | 76 |  | 73 | 75 |
| Latino | 65 | 70 |  | 53 | 54 |  | 34 | 38 |
| African American | 98 | 99 |  | 69 | 71 |  | 68 | 70 |
| Asian | 70 | 75 |  | 55 | 58 |  | 38 | 44 |
| American Indian | 97 | 98 |  | 58 | 62 |  | 56 | 60 |
| Multiracial | 91 | 92 |  | 60 | 61 |  | 55 | 56 |
| Total | 84 | 83 |  | 66 | 65 |  | 55 | 54 |

SOURCE: Authors' projections for 2005 and 2015.
NOTES: The "registration rate" is the share of citizens who are registered to vote. The "share registered" is the percentage of all adults who are registered to vote. Asian includes Pacific Islanders.

Table 6.5
Percentage Distribution of Registered Voters, by Race/Ethnicity, 2005 and 2015

|  | 2005 |  |  | 2015 |  |  |
| :--- | :---: | :---: | :--- | :--- | :---: | :---: |
|  | Adults | Registered <br> Voters |  | Adults |  | Registered <br> Voters |
| White | 47 | 62 |  | 35 | 48 |  |
| Latino | 39 | 24 |  | 48 | 33 |  |
| African American | 7 | 9 |  | 7 | 9 |  |
| Asian | 6 | 4 |  | 8 | 6 |  |
| American Indian | 1 | 1 |  | 1 | 1 |  |
| Multiracial | 1 | 1 |  | 2 | 2 |  |

SOURCE: Authors' projections for 2005 and 2015.
NOTES: Columns may not sum to 100 because of rounding. Asian includes Pacific Islanders.
"likely voters"-a category based on past voting patterns, current interests, and voting intentions (Table 6.6). The shares were substantially lower among Latinos (50\%), African Americans (55\%), and Asians (54\%). If

Table 6.6
Percentage Distribution of Voting Among Registered Voters in the Inland Empire, by Race/Ethnicity, 2002-2007

|  | White | Latino | African <br> American | Asian | Other |
| :--- | :---: | :---: | :---: | ---: | :---: |
| Likely voters | 69 | 50 | 55 | 54 | 67 |
| How often do you vote? |  |  |  |  |  |
| Always | 65 | 52 | 55 | 48 | 65 |
| Nearly always | 25 | 27 | 24 | 28 | 19 |
| Part of the time | 7 | 14 | 13 | 11 | 9 |
| Seldom | 2 | 4 | 5 | 7 | 4 |
| Never | 1 | 4 | 2 | 5 | 3 |

SOURCE: Authors' calculations based on the PPIC Statewide Surveys.
NOTE: "Likely voter" is constructed based on past voting, current interest, and voting intentions.
these voting behavior patterns continue, the higher voting frequency among white registered voters combined with their higher share registered means that whites will make up the majority of voters in 2015 even though they will constitute just over one-third of the adult population. All other groups will be underrepresented among voters.

## Factors Contributing to Lower Voting Participation

We have shown that Inland Empire adults are somewhat less likely than other Californians to register to vote. Moreover, among those registered, Inland Empire residents are less likely to vote. Taken together, this means that substantially lower shares of citizens in the Inland Empire vote than in the rest of the state. In this section, to help understand the lower levels of registration and voting in the Inland Empire, we examine voting by age, years in current residence, education, and income. All of these factors help explain the lower rates of registration and voting.

Compared to the state, the Inland Empire has a population that is both younger and more likely to have recently moved to the region. As shown in Table 6.7, it is older adults and those who have been living in the same residence for many years who are more likely to register to vote, more likely to actually vote, and more likely to be interested in politics. Furthermore,

Table 6.7
Percentage Distribution of Voting in the Inland Empire, by Age Group and
Years in Home, 2002-2007

|  | Age Group |  |  |  |  | Years in Home |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $18-24$ | $35-44$ | $55-64$ |  | $<5$ | $5-10$ | $10-20$ |  |
| Registered to vote (citizens) | 58 | 75 | 87 |  | 68 | 77 | 88 |  |
| Likely voters (registered) | 37 | 64 | 78 |  | 40 | 80 | 85 |  |
| How often do you vote? (registered) |  |  |  |  |  |  |  |  |
| Always | 42 | 58 | 72 |  | 54 | 62 | 68 |  |
| Nearly always | 26 | 30 | 20 |  | 28 | 24 | 22 |  |
| Part of the time | 15 | 9 | 6 |  | 11 | 9 | 7 |  |
| Seldom | 8 | 3 | 1 |  | 4 | 3 | 2 |  |
| Never | 10 | 1 | 0 |  | 3 | 2 | 2 |  |
| How much interest in politics? (all residents) |  |  |  |  |  |  |  |  |
| $\quad$ Great deal | 15 | 20 | 29 |  | 20 | 22 | 25 |  |
| Fair amount | 37 | 41 | 46 |  | 41 | 42 | 46 |  |
| Only a little | 38 | 31 | 21 |  | 31 | 30 | 25 |  |
| None | 10 | 7 | 4 |  | 8 | 7 | 4 |  |

SOURCE: Authors' calculations based on the PPIC Statewide Surveys.
NOTE: Columns may not sum to 100 because of rounding.
relative to all Californians, Inland Empire adults have lower levels of education and income. Voter registration, voting, and interest in politics are higher among better-educated adults and those with higher incomes (Table 6.8).

These factors also help explain why Latinos have lower registration and vote less than do whites. Compared to the white population, the Latino population is younger, less educated, lower income, and more likely to have recently moved to the region.

The registration and voting patterns described here also suggest that over the next decade, the Inland Empire will continue to have lower registration and voting than the rest of California. Our projections for 2015 show that the region will continue to be younger and less educated and thus likely to have incomes lower than those statewide. The continuation of substantial migration to the Inland Empire will mean that a high share of the future population will have moved relatively recently to the Inland Empire.

Table 6.8

## Percentage Distribution of Voting in the Inland Empire, by Education and Income, 2002-2007

|  | Education |  |  | Income (\$ thousands) |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Less Than High School | High School Graduate | Bachelor's Degree | < \$20 | $\begin{gathered} \$ 40 \text { to } \\ \$ 60 \end{gathered}$ | \$100+ |
| Registered to vote (citizens) | 37 | 77 | 91 | 56 | 79 | 93 |
| Likely voters (registered) | 37 | 58 | 78 | 46 | 61 | 78 |
| How often do you vote? (registered voters) |  |  |  |  |  |  |
| Always | 48 | 58 | 69 | 50 | 60 | 67 |
| Nearly always | 23 | 25 | 24 | 24 | 26 | 27 |
| Part of the time | 16 | 10 | 5 | 16 | 10 | 5 |
| Seldom | 6 | 4 | 1 | 4 | 3 | 1 |
| Never | 7 | 2 | 1 | 5 | 2 | 0 |
| How much interest in politics? (all residents) |  |  |  |  |  |  |
| Great deal | 14 | 19 | 31 | 18 | 20 | 31 |
| Fair amount | 20 | 44 | 48 | 28 | 45 | 51 |
| Only a little | 49 | 31 | 17 | 41 | 30 | 16 |

SOURCE: Authors' calculations based on the PPIC Statewide Surveys. NOTE: Columns may not sum to 100 because of rounding.

## Other Forms of Political Participation

There are many forms of political participation beyond voting. Citizens and noncitizens alike can participate in political rallies, contribute time or money to a political campaign, attend local government meetings, and take part in other political activities. In this section, we examine these other forms of political participation, comparing the Inland Empire with other regions of the state. Unfortunately, the number of people surveyed is too small to permit consideration of these other political activities by race and ethnicity within the Inland Empire. ${ }^{4}$

[^23]As was true for voter registration (Table 6.1), Inland Empire residents are less likely than other Californians to be politically active in other ways. However, the differences from statewide trends are not as great (Table 6.9). Among Inland Empire adults, 11 percent attended a political rally in the last year compared to a statewide share of 16 percent. Inland Empire residents were a few percentage points less likely than other Californians to sign a petition, work for a political party, or contribute to a political campaign. Inland Empire residents were more likely to attend a school board or other local meeting ( $42 \%$ compared to $40 \%$ ). However, this probably reflects the region's greater share of adults who are parents rather than higher political participation rates among the region's parents.

We have shown that voter registration among Latinos and Asians is low relative to that of whites, and our projections suggest that this will continue

Table 6.9
Percentage Distribution of Nonvoting Political Participation, by Region, 2002-2007

|  | Inland <br> Empire | $\begin{gathered} \text { Los } \\ \text { Angeles } \\ \hline \end{gathered}$ | South <br> Coast | Central Valley | San |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | Francisco Bay Area | California |
| In the last year, have you... |  |  |  |  |  |  |
| Attended a rally? | 11 | 16 | 13 | 16 | 18 | 16 |
| Attended a meeting on local or school affairs? | 42 | 38 | 39 | 38 | 40 | 40 |
| Signed a petition? | 36 | 38 | 41 | 36 | 41 | 39 |
| Worked for a political party? | 3 | 6 | 6 | 6 | 7 | 6 |
| Given money to a campaign, party, or candidate? | 16 | 19 | 23 | 18 | 24 | 21 |
| How much interest in politics? |  |  |  |  |  |  |
| Great deal | 22 | 24 | 24 | 22 | 26 | 24 |
| Fair amount | 42 | 39 | 43 | 42 | 44 | 42 |
| Only a little | 29 | 29 | 27 | 29 | 24 | 27 |
| None | 7 | 8 | 6 | 7 | 5 | 7 |

SOURCES: Authors' calculations based on the PPIC Statewide Surveys. The upper panel is based on survey data from 2002 to 2004; the lower panel is based on 2007 data. NOTE: Columns of the lower panel may not sum to 100 because of rounding.
to be true over the next decade. These trends are not unique to the Inland Empire. Citrin and Highton (2002) argue that multiple policy approaches are needed to address the racial and ethnic voting gaps: English language instruction, civics education, assistance with naturalization applications, convenient voter registration, clear and easy-to-access information about ballot measures and candidates, multiple language outreach, and voter mobilization through various community groups. Ramakrishnan and Baldassare (2004) note the importance of informing and motivating residents about participation beyond voting. In particular, they conclude that immigrants represent a mostly untapped source for civic involvement with a strong expressed interest in volunteering. 5 Finally, racial and ethnic differences in participation are linked to differences in English language skills, education, and economic conditions. Reducing these socioeconomic gaps will help close participation gaps.

[^24]
## 7. Conclusion: Investing in the Future

The future of the Inland Empire over the next decade will be driven, in large part, by demographic and economic forces. Projections for the population and the economy of the region show growth rates that will continue to surpass those for the rest of the state. Growth can bring economic opportunities to the region, but it also poses challenges for public services, infrastructure, and the environment. The substantial migration to the Inland Empire from the coastal areas of Southern California is a testament to the continued attractiveness of the region. Yet the projections in this report reveal potential problems with the nature of new jobs, the education of the population, and political participation.

Economic projections show that the region's economy is slowly moving toward jobs that require higher levels of education. Since these jobs are associated with higher wages, this is good news. However, the pace of increase is quite modest, and the region is projected to remain well behind the rest of the state.

Similarly, our projections suggest some increase in educational attainment levels in the region, partly a consequence of increases in education among the region's migrants who are drawn primarily from coastal counties in Southern California. Even so, the share of adults without a high school diploma will remain quite high.

Concerned about these trends, planners and policymakers in the Inland Empire are already working to promote economic development that will bring higher-skilled jobs to the region. If these economic development plans are to expand opportunities broadly, then they must also encourage employment with decent wages for workers with lower skills, and education and training programs to improve worker skills. Husing (2005d) suggests that the logistics industry offers good pay opportunities and on-the-job training to workers with low educational attainment. Our projections suggest that in 2015, nearly one-quarter of the adults in the Inland Empire will not have finished high school. The projected share without a high school diploma is expected to be at least this high in the three most
populous subregions-Northwestern Riverside, Western San Bernardino, and Eastern San Bernardino. Thus, it is important that economic development efforts also focus on workers who do not have high school diplomas (see also Husing, 2005b). Improvements in educational outcomes and economic opportunities for Inland Empire residents who are less welloff will benefit all of the region's residents.

Public investments and growth policies require tough choices. A key concern for the future is who will participate in these choices. Our projections suggest that whites will constitute just over one-third of the adult population but will make up a majority of the voters and that older adults and homeowners will be disproportionately overrepresented among voters. The region faces the risk that public choices about the future will be made by a relatively privileged minority. Thus, to promote policies that are broadly beneficial, efforts toward economic development and workforce training should be matched with efforts to increase participation through voting and other means in public decisionmaking that will help shape the future of the region.

## Appendix A

## Notes on Data and Methods

Throughout this report we have relied on several sources of data as well as on a variety of methods. In this appendix, we provide further details on the data and methods. The appendix is arranged by chapter and, within chapters, generally follows the order that data and methods are discussed in the main text.

## Data and Methods Used in Chapter 4

We use the cohort component method to project populations of the Inland Empire. The method is straightforward conceptually but complex in its details. The cohort component approach we take is purely demographic and makes no explicit assumptions about the economy. Implicitly, the projections assume that past patterns of economic change and policies regarding growth will continue into the future.

In the cohort component method, populations are aged across time by applying mortality rates, migration rates, and fertility rates. We disaggregate populations by age, gender, ethnicity, nativity (foreignborn and U.S.-born), and county. Future rates of change are based on past patterns. Historic rates that are stable across time or changing in a constant manner are easiest to forecast. Disaggregations of populations (by age, gender, ethnicity, nativity, and county) are partly done to identify consistent levels and trends in fertility, mortality, and migration that are often very different across population subgroups. For example, fertility rates are much lower for whites than for Latinos; and among Latinos, rates are much lower for the U.S.-born than the foreign-born. Disaggregating projections by groups with different fertility, mortality, and migration rates leads to enhanced understanding of the processes driving population growth and increases the precision of the forecasts. We consider six ethnic groups (African American, American Indian, Asian and Pacific Islander, Latino, multiracial, and white), 21 age groups (five-year age groups from
age 0 to age 100 , and 100 and over), both genders, two nativities, and two counties (Riverside and San Bernardino).

Mortality rates are the easiest to forecast. Annual reductions in age-specific mortality rates have been fairly consistent across time for all groups. We draw on previous PPIC research to establish past trends and levels (Johnson and Hayes, 2004b). We assume that mortality rates by age, gender, ethnicity, and nativity are the same in the Inland Empire as in the rest of the state. We use white rates for the multiracial group. For American Indians, we use separate rates for males and females, but we do not distinguish between foreign-born and U.S.-born American Indians. Our projections for 2000 through 2015 assume a 5 percent reduction in age-specific mortality rates for all groups. A good summary measure of age-specific death rates is life expectancy. Our base year (2000) age-specific mortality rates translate into the life expectancies shown in Table A.1.

Fertility rates are more variable than mortality rates. Differences in fertility between ethnic and nativity groups are the largest source of variation. Our method fully accounts for this variation. Temporal changes in fertility are less pronounced but also considered. We rely on past PPIC research to project fertility rates for population subgroups, and we use 2000 Census data in conjunction with vital records on births to develop base-year fertility rates for ethnic and nativity groups in Riverside and San

Table A. 1
Base Year Life Expectancies, by Race/Ethnicity

|  | Male |  | Female |  | $\begin{gathered} \text { All } \\ \text { Male } \end{gathered}$ | All <br> Female | All U.S.- <br> Born | All ForeignBorn | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | U.S.Born | ForeignBorn | U.S.Born | ForeignBorn |  |  |  |  |  |
| All groups | 75.0 | 79.3 | 79.9 | 83.4 | 76.0 | 80.8 | 77.4 | 81.5 | 78.4 |
| American Indian |  |  |  |  | 76.6 | 79.6 |  |  | 78.2 |
| Asian | 82.5 | 80.6 | 88.2 | 85.2 | 80.5 | 85.2 | 85.4 | 83.1 | 83.0 |
| African <br> American | 68.7 | 74.4 | 75.1 | 79.3 | 69.0 | 75.3 | 71.9 | 77.2 | 72.1 |
| Latino | 75.6 | 79.7 | 82.6 | 84.3 | 77.7 | 83.2 | 79.2 | 82.1 | 80.5 |
| White | 75.3 | 77.5 | 79.9 | 81.7 | 75.5 | 80.1 | 77.7 | 79.7 | 77.8 |

Bernardino Counties. For groups with few births, we use statewide birth rates. Total fertility rates are a good summary measure of age-specific birth rates. The total fertility rate is the average number of children a woman will have in her lifetime if current age-specific rates prevail. Our base-year and 2015 birth rates are shown in Table A.2.

Finally, migration is especially volatile. Large swings in migration over short periods of time have characterized California's migration history. Although the Inland Empire has not experienced the large outflows of migrants that other regions of the state have, the magnitude of migration into the Inland Empire has fluctuated substantially. We develop separate projections for domestic in-migration, domestic out-migration, and net international migration for all of the subgroups noted above. We use

Table A. 2
Total Fertility Rates in Riverside and San Bernardino Counties, 2000 and 2015

|  | U.S.-Born | Foreign-Born | U.S.-Born | Foreign-Born |  |
| :--- | :---: | :---: | :---: | :---: | :---: |
|  | Riverside, 2000 |  | San Bernardino, 2000 |  |  |
| Latino | 2.43 | 3.57 | 2.45 | 3.01 |  |
| White | 1.98 | 3.01 | 1.93 | 3.41 |  |
| African American | 2.23 | 2.39 | 2.22 | 2.39 |  |
| Asian and Pacific Islander | 1.98 | 1.97 | 1.31 | 2.21 |  |
| American Indian | 1.53 | 1.53 | 1.53 | 1.53 |  |
| Multiracial | 1.71 | 1.71 | 1.59 | 1.59 |  |
|  | Riverside, 2015 |  |  | San Bernardino, 2015 |  |
| Latino | 2.43 | 2.86 | 2.45 | 2.71 |  |
| White | 1.98 | 2.86 | 1.93 | 3.24 |  |
| African American | 2.12 | 2.27 | 2.11 | 2.27 |  |
| Asian and Pacific Islander | 1.98 | 1.97 | 1.31 | 2.21 |  |
| American Indian | 1.53 | 1.53 | 1.53 | 1.53 |  |
| Multiracial | 1.71 | 1.71 | 1.59 | 1.59 |  |

NOTES: For groups with fewer than 200 births, we used fertility rates from a larger geography or rates for both the U.S.-born and foreign-born combined: For American Indians and foreign-born African Americans, we used California rates; for multiracial women, we combined U.S.-born and foreign-born.

2000 Census data to establish age, ethnicity, gender, and nativity-specific rates for each county. We adjust those rates in light of recent estimates of migration. Our projections assume that migration will remain the major driver of growth in the Inland Empire's population.

The base year of the projections is 2000, but we calibrate our 2005 projections to be consistent with the latest estimates of the region's population. We examine 2005 estimates produced by the California Department of Finance and the Census Bureau. Unlike the rest of the state, the two sets of estimates are fairly close for Riverside and San Bernardino Counties. We rely on California Department of Finance estimates of populations by ethnicity to calibrate our 2005 projections. Those estimates do not include age, gender, or nativity. We use the 2005 American Community Survey to calibrate our 2005 projections of the share of the population that is foreign-born.

Cohort component projections cannot be developed for the subregions because of data constraints. Instead, projections are allocated to subregions using a shift share method and local expert input. For each of the ten subregions, we calculate the subregional share of the county's total population, ethnic population (for each of six ethnic groups), and population by age. We calculate these shares for 1990 and 2000 and the change in share between 1990 and 2000 (known as the "shift" in the share). We project subregional shares of 2015 populations by assuming that the shift in share will continue into the future. For example, the Southwestern Riverside subregion was home to 10.74 percent of Riverside County's population in 1990 and 14.43 percent in 2000 (Table A.3), for a shift of 3.69 percentage points. We continue this shift over the next 15 years, giving Southwestern Riverside a 19.96 percent share of the total projected population of Riverside County. Thus, the projected shift in Southwestern Riverside's share is 5.53 percentage points, equal to 1.5 times the 1990 to 2000 shift. We multiply the historic shift by 1.5 to take into account the projection period of 15 years (the historic shift is based on a ten-year period). The projected shares based on total population, ethnicity, and age group are then averaged to develop a single projection for 2015. We are not able to calibrate these subregional projections to post-censal estimates because no such estimates exist. However, population

Table A. 3
Subregion Percentage Shares of Total and Incorporated County Populations, 1990, 2000, and 2006

| Subregion | Subregion Share of Total County Population |  | Subregion Incorporated Cities Share of County Incorporated Population |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1990 Share 2000 Share <br> of County of County |  |  |  |  |
|  |  |  | 1990 | 2000 | 2006 |
| Riverside County |  |  |  |  |  |
| Eastern Desert | 1.6 | 1.7 | 1.1 | 1.9 | 1.7 |
| Southern Mountains | 0.8 | 0.8 | - | - | - |
| Coachella Valley | 19.7 | 20.7 | 24.1 | 24.5 | 25.3 |
| Northwestern Riverside | 53.7 | 50.0 | 59.6 | 54.9 | 51.4 |
| San Jacinto Valley | 13.5 | 12.5 | 10.5 | 11.1 | 11.5 |
| Southwestern Riverside | 10.7 | 14.4 | 4.7 | 7.6 | 10.2 |
| San Bernardino County |  |  |  |  |  |
| Eastern Desert | 1.9 | 2.2 | 0.5 | 0.4 | 0.4 |
| High Desert | 20.0 | 20.2 | 16.2 | 17.6 | 20.1 |
| Northern Mountains | 3.2 | 2.7 | 0.5 | 0.4 | 0.4 |
| Western San Bernardino | 40.0 | 42.0 | 43.2 | 43.7 | 43.8 |
| Eastern San Bernardino | 34.9 | 32.9 | 39.6 | 37.9 | 35.3 |

NOTES: Shares for incorporated cities are restricted to cities incorporated as of 1990. There are no incorporated cities in the Southern Mountains subregion.
estimates for incorporated cities for 2006 are available from the California Department of Finance. Those suggest that the 1990 to 2000 shifts in subregional shares of incorporated populations are not always good predictors of shifts in subregional shares of total populations. For example, the High Desert's share of San Bernardino County's population increased from 20.0 percent of the total in 1990 to 20.2 percent in 2000 . However, its incorporated cities' share of the incorporated population of the county increased much more rapidly, from 16.2 percent to 17.6 percent of the total incorporated population of San Bernardino County. In general, the 2006 city estimates suggest that the general patterns of change observed between 1990 and 2000 have continued. The 2006 city estimates suggest that our shift share approach might understate growth in the High Desert and overstate growth in Western San Bernardino.

Because of these limitations with the shift share approach, we adjust the projections derived from the shift share approach with projections of local growth developed by the San Bernardino Association of Governments and the Western Riverside Council of Governments, who generously supplied those projections to us. Specifically, we weight the shift share projections by 0.3 and the regionally produced projections by 0.7 to develop projections for the subregions. Those subregional projections are then controlled to our total population projections for each county.

## Data and Methods Used in Chapter 5

Our projections of educational attainment are produced in three steps: First, we project educational attainment for nonmigrated populations in the Inland Empire; second, we project the educational attainment levels of migrants to and from the Inland Empire. Adding the results of the first and second steps gives us educational attainment projections for both counties. In the third step, we disaggregate the county projections to subregions using a shift share method. These steps are discussed in more detail below.

In the first step, we develop population projections for each county in the absence of migration. We then apply educational attainment distributions to each cohort, with cohorts defined by age, gender, ethnicity, and nativity (as in the general population projections), and educational attainment distributions based on 2000 levels. For each cohort ages 30 and older in 2000, we allow educational attainment levels to increase slightly across time based on historical patterns. For the youngest cohort, those ages $25-29$ in 2015 and 10-14 in 2000, we use mother's educational attainment to project educational outcomes. Previous PPIC research has found strong intergenerational increases in educational attainment, especially between the first and second generation (Reed et al., 2005). We use those relationships, as identified from 2000 Census data, to project educational outcomes for this youngest cohort. These relationships are identified separately by gender, ethnicity, and nativity. We consider six education categories: 8th grade and less, some high school, high school graduate, some college (including an associate degree), bachelor's degree, and graduate degree.

In the second step, we develop projections for migrants. We consider three types of migrants: domestic in-migrants, domestic out-migrants, and international migrants, and we use the same six education categories
as in the nonmigrated projections. We use 2000 Census data and data from the 2005 and 2006 American Community Surveys to identify educational attainment patterns for these three types of migrants. Again, we disaggregate the patterns by ethnicity, gender, age, nativity, and county. Educational attainment distributions of migrants are applied to our population projections with migration-specifically to the projections of domestic in-migrants, domestic out-migrants, and international migrants.

Employment projections by industry are based on projections from the California Employment Development Department (2006b) for 2004-2014 (see Appendix Table B. 4 for a description of the industries). Those county-level projections are developed from the county's past employment trends by industry and are then refined by a review of current economic developments within the local community. We use projections for nonfarm, civilian employment, not including self-employment. We extend the projections to 2015 by assuming that the average annual growth for 2004-2014 would continue to 2015 within each industry for the Inland Empire and statewide. We find similar results using industry employment projections from the California Department of Transportation for 2005-2015 (see Appendix Table B.7).

We estimate education by industry for the Inland Empire and statewide from the 2000 Census and from the 2005 and 2006 American Community Surveys (Public Use Microdata Samples). Following the method developed by Neumark (2005), we estimate the educational distribution of employment demand by weighting the within-industry educational distributions by the industry shares. For comparison with 2015 projections, we use this method to calculate the education distribution in 2005-2006. For 2015, we assume that the shifts in educational demand within each industry during the period 2000 to 2005-2006 would continue to 2015 . For example, in durable manufacturing, the share of workers with less than a high school diploma decreased from 34.4 percent to 33.4 percent in the 5.5 years from 2000 to 2005-2006-or by 0.2 percentage points per year. Continuing this trend to 2015, the share with less than a high school diploma in 2015 would be 31.5 percent.

We use occupation projections from the California Employment Development Department for 2004-2014 to describe growth in the demand for college-educated workers in the Inland Empire. The
occupation projections show relatively high growth in business and financial operations occupations, computer and mathematical occupations, and education occupations. Overall, the occupation projections combined with Bureau of Labor Statistics estimates of skill needs suggest growth in demand for college-educated workers in the Inland Empire but at a slower rate than we find. Because the Bureau of Labor Statistics estimates account only for a single level of training for each occupation and do not consider variation in educational needs within an occupation, we prefer to use the actual education levels of workers for a more accurate range. See Johnson and Reed (2007) for further discussion.

We develop industry employment projections by subregion using a special extract of employment data from the California Employment Development Department, aggregated by subregion for the period 2001-2004. For each industry, we allocate the total projected growth in the Inland Empire to the subregions based on the growth during 2001-2004. For example, in the Coachella Valley, accommodation and food services grew from 20,810 jobs to 22,297 jobs between 2001 and 2004. Growth in the Coachella Valley at 7 percent was less than throughout the Inland Empire at 9 percent (based on the sum of the subregional data). We assumed that the rate of growth of accommodation and food services in the Coachella Valley for 2004-2015 would be lower than that projected by the California Employment Development Department for the Inland Empire by a factor of $7 / 9$. We applied this adjusted rate of growth to the baseline employment in accommodation and food services in the Coachella Valley in 2004. Data on education by industry are not available for the subregions. We used the Inland Empire educational distributions for each industry in each subregion.

## Data and Methods Used in Chapter 6

Naturalization rates are estimated from the 2005 and 2006 American Community Surveys. We estimate a linear probability model for naturalization as a function of dummy variables indicating sex, age, and race/ethnicity. For adults ages 25-64, we included educational attainment (this is the age group for whom we project educational attainment in 2015). The model is estimated from a sample of Inland Empire residents ages 18 and older whose citizenship status was either "naturalized" or "not
a citizen." The model results are combined with our detailed population projections for 2015 to develop projections for the foreign-born. We develop projections of the citizen population by combining projections of the naturalized foreign-born population with projections of the native-born population.

We use a similar method to develop projections of voter registration. The base data are the November Current Population Survey (2002, 2004, and 2006, combined). The sample includes all citizens ages 18 and older. Because of the smaller size of this survey, the model is estimated for California as a whole with a dummy variable for the Inland Empire. The model also includes an indicator for naturalized citizens and for the year of the survey. Our registered voter projections for 2005 do not match the level of voter registration reported for 2005 by the California Secretary of State ( $49.9 \%$ and $55.3 \%$, respectively). We multiply our projected rates by 1.1078 to create an exact match.

The data on voting behavior and on nonvoting forms of political participation are drawn from the PPIC Statewide Surveys. To ensure that sample sizes are large enough to represent regions accurately and to examine demographic differences within the Inland Empire, we have combined data from surveys conducted in 2002-2007. The PPIC Statewide Surveys have a larger Inland Empire sample over this period (over 8,100 registered voters) than does the November Current Population Survey (just over 1,100 registered voters). In addition, by using the PPIC Statewide Surveys for voting behavior, we have a comparable sample from the same survey for nonvoting forms of political participation.

Throughout Chapter 6 we refer to several regions of California. The "South Coast" region includes Orange and San Diego Counties. The "Central Valley" includes Butte, Colusa, El Dorado, Fresno, Glenn, Kern, Kings, Madera, Merced, Placer, Sacramento, San Joaquin, Shasta, Stanislaus, Sutter, Tehama, Tulare, Yolo, and Yuba Counties. The "San Francisco Bay Area" includes Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, Solano, and Sonoma Counties.

## Appendix B

## Auxiliary Tables

Table B. 1
Populations in the Subregions and Incorporated Cities of the Inland Empire, 1990, 2000, and 2006

| Subregion | City | 1990 | 2000 | 2006 |
| :--- | :--- | ---: | ---: | ---: |
| Riverside County |  |  |  |  |
| Coachella |  |  |  |  |
| Valley | Cathedral City | 29,050 | 42,300 | 51,081 |
|  | Coachella | 16,600 | 22,150 | 35,207 |
|  | Desert Hot Springs | 11,550 | 16,550 | 22,011 |
|  | Indian Wells | 2,570 | 3,670 | 4,865 |
|  | Indio | 35,400 | 48,650 | 71,654 |
|  | La Quinta | 10,650 | 23,050 | 40,985 |
|  | Palm Desert | 22,750 | 41,000 | 49,539 |
|  | Palm Springs | 39,500 | 42,700 | 46,437 |
|  | Rancho Mirage | 9,600 | 13,150 | 16,672 |
|  |  |  |  |  |
| Northwestern | Corona | 73,300 | 123,700 | 144,661 |
| Riverside | Moreno Valley | 115,500 | 142,000 | 174,565 |
|  | Norco | 23,100 | 24,100 | 27,263 |
|  | Perris | 21,050 | 35,900 | 47,139 |
|  | Riverside | 223,300 | 253,800 | 287,820 |
|  |  |  |  |  |
| San Jacinto | Banning | 19,950 | 23,500 | 28,128 |
| Valley | Beaumont | 9,525 | 11,350 | 23,145 |
|  | Calimesa | 7,075 | 7,415 |  |
|  | Hemet | 35,350 | 58,500 | 69,544 |
|  | San Jacinto | 15,500 | 23,400 | 31,066 |
|  |  |  |  |  |
|  | Canyon Lake | 17,900 | 28,700 | 38,340 |

Table B. 1 (continued)

| Subregion | City | 1990 | 2000 | 2006 |
| :---: | :---: | :---: | :---: | :---: |
|  | Murrieta |  | 43,850 | 92,933 |
|  | Temecula | 25,300 | 56,600 | 93,923 |
| Southern <br> Mountains | (no incorporated cities) |  |  |  |
| San Bernardino County |  |  |  |  |
| High Desert | Adelanto | 8,250 | 18,200 | 24,880 |
|  | Apple Valley | 44,800 | 54,000 | 67,507 |
|  | Barstow | 21,150 | 21,100 | 23,599 |
|  | Hesperia | 49,050 | 62,300 | 80,268 |
|  | Twentynine Palms | 11,750 | 14,750 | 27,498 |
|  | Victorville | 39,000 | 63,600 | 95,145 |
|  | Yucca Valley |  | 16,800 | 20,537 |
| Northern |  |  |  |  |
| Western San |  |  |  |  |
| Bernardino | Chino | 59,300 | 66,900 | 78,055 |
|  | Chino Hills |  | 66,300 | 77,969 |
|  | Fontana | 85,100 | 127,300 | 165,462 |
|  | Montclair | 28,050 | 32,850 | 35,648 |
|  | Ontario | 130,000 | 157,600 | 171,113 |
|  | Rancho Cucamonga | 98,500 | 126,600 | 170,479 |
|  | Upland | 62,700 | 68,100 | 74,099 |
| Eastern San |  |  |  |  |
| Bernardino | Colton | 39,400 | 47,500 | 51,781 |
|  | Grand Terrace | 10,750 | 11,600 | 12,380 |
|  | Highland | 33,850 | 44,550 | 51,489 |
|  | Loma Linda | 17,000 | 18,650 | 21,912 |
|  | Redlands | 59,600 | 63,400 | 71,086 |
|  | Rialto | 70,300 | 91,600 | 99,189 |
|  | San Bernardino | 161,800 | 185,100 | 201,823 |
|  | Yucaipa | 32,400 | 41,150 | 50,553 |

Table B. 1 (continued)

| Subregion | City | 1990 | 2000 | 2006 |  |
| :--- | :--- | ---: | ---: | ---: | :---: |
|  | Both Counties |  |  |  |  |
| Eastern Desert | Blythe | 8,325 | 20,050 | 22,179 |  |
|  | Needles | 5,050 | 4,830 | 5,681 |  |

SOURCE: Populations are as of January 1 of each year from California Department of Finance estimates.

Table B. 2
Percentage Distribution of Characteristics of Intrastate Migrants Moving to and from the Inland Empire, by Region, 1995-2000

|  | Los Angeles County |  | Orange County |  | San Diego County |  | South San Joaquin Valley |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Flows In | Flows <br> Out | Flows In | Flows Out | Flows In | Flows <br> Out | Flows In | Flows <br> Out |
| Sex |  |  |  |  |  |  |  |  |
| Female | 50.0 | 50.1 | 49.1 | 50.2 | 48.8 | 49.4 | 46.0 | 30.1 |
| Male | 50.0 | 49.9 | 50.9 | 49.8 | 51.2 | 50.6 | 54.0 | 69.9 |
| Race/ethnicity |  |  |  |  |  |  |  |  |
| White | 30.4 | 35.8 | 55.6 | 60.2 | 59.2 | 67.1 | 45.9 | 46.2 |
| Latino | 47.3 | 36.8 | 34.2 | 22.3 | 24.8 | 19.0 | 40.3 | 34.0 |
| Asian | 5.4 | 11.0 | 4.0 | 12.0 | 2.9 | 4.9 | 3.7 | 1.3 |
| African American | 13.8 | 12.7 | 3.7 | 1.7 | 8.0 | 4.9 | 7.4 | 14.9 |
| American Indian | 0.4 | 0.4 | 0.3 | 0.9 | 1.1 | 1.2 | 0.8 | 0.9 |
| Multiracial | 2.5 | 3.2 | 2.1 | 2.8 | 3.8 | 2.5 | 1.9 | 2.8 |
| Other | 0.2 | 0.1 | 0.1 | 0.0 | 0.1 | 0.3 | 0.0 | 0.0 |
| Citizen |  |  |  |  |  |  |  |  |
| Citizen by birth | 72.5 | 74.6 | 78.3 | 78.6 | 85.9 | 87.3 | 80.0 | 82.4 |
| Citizen born in U.S. <br> islands or territory | 0.3 | 0.3 | 0.1 | 0.1 | 0.3 | 0.2 | 0.2 | 7.5 |
| Citizen born abroad of American parents | 0.4 | 0.5 | 0.7 | 1.4 | 1.0 | 0.9 | 0.7 | 0.0 |
| Naturalized citizen | 11.0 | 10.7 | 7.1 | 10.2 | 5.4 | 5.4 | 3.7 | 2.9 |
| Not a citizen | 15.8 | 13.9 | 13.8 | 9.6 | 7.4 | 6.2 | 15.4 | 7.1 |

Table B. 2 (continued)


Table B. 2 (continued)


SOURCE: Authors' calculations based on the 2000 Census (PUMS 5\%).
NOTES: Education is determined for adults ages 25 and over; marital status for adults ages 18 and over; poverty status for persons in households; welfare for individuals between ages 18 and 64. Number of years in the United States is determined for the foreign-born. Asian includes Pacific Islanders.
Table B. 3
Intrastate Migration Flows to and from the Inland Empire, by Characteristics and Region, 1995-2000

|  | Los Angeles County |  |  | Orange County |  |  | San Diego County |  |  | S. San Joaquin Valley |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Flows In | Flows Out | Net <br> Flows | Flows In | Flows Out | Net <br> Flows | Flows In | Flows Out | Net <br> Flows | Flows In | Flows Out | Net <br> Flows |
| Sex |  |  |  |  |  |  |  |  |  |  |  |  |
| Female | 101,968 | 42,796 | 59,172 | 39,655 | 23,933 | 15,722 | 19,128 | 11,908 | 7,220 | 4,120 | 5,787 | -1,667 |
| Male | 102,093 | 42,687 | 59,406 | 41,097 | 23,706 | 17,391 | 20,096 | 12,176 | 7,920 | 4,838 | 13,445 | -8,607 |
| Race/ethnicity |  |  |  |  |  |  |  |  |  |  |  |  |
| White | 62,097 | 30,575 | 31,522 | 44,895 | 28,702 | 16,193 | 23,228 | 16,157 | 7,071 | 4,108 | 8,884 | -4,776 |
| Latino | 96,518 | 31,497 | 65,021 | 27,635 | 10,641 | 16,994 | 9,710 | 4,585 | 5,125 | 3,611 | 6,534 | -2,923 |
| Asian | 11,047 | 9,380 | 1,667 | 3,256 | 5,728 | -2,472 | 1,153 | 1,182 | -29 | 332 | 245 | 87 |
| African American | 28,114 | 10,830 | 17,284 | 2,970 | 802 | 2,168 | 3,153 | 1,170 | 1,983 | 667 | 2,859 | -2,192 |
| American Indian | 892 | 379 | 513 | 224 | 432 | -208 | 445 | 300 | 145 | 73 | 173 | -100 |
| Multiracial | 5,086 | 2,742 | 2,344 | 1,728 | 1,313 | 415 | 1,499 | 614 | 885 | 167 | 537 | -370 |
| Other | 307 | 80 | 227 | 44 | 21 | 23 | 36 | 76 | -40 | 0 | 0 | 0 |
| Citizen |  |  |  |  |  |  |  |  |  |  |  |  |
| Citizen by birth | 147,962 | 63,791 | 84,171 | 63,220 | 37,449 | 25,771 | 33,709 | 21,017 | 12,692 | 7,165 | 15,849 | -8,684 |
| Citizen born in U.S. islands or territory | 546 | 279 | 267 | 87 | 60 | 27 | 109 | 42 | 67 | 14 | 1,451 | -1,437 |
| Citizen born abroad of American parents | 895 | 434 | 461 | 566 | 664 | -98 | 382 | 216 | 166 | 64 | 0 | 64 |

Table B. 3 (continued)

|  | Los Angeles County |  |  | Orange County |  |  | San Diego County |  |  | S. San Joaquin Valley |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Flows In | Flows Out | Net Flows | Flows In | Flows Out | Net Flows | Flows <br> In | Flows Out | Net Flows | Flows In | Flows Out | Net Flows |
| Naturalized citizen | 22,416 | 9,119 | 13,297 | 5,717 | 4,870 | 847 | 2,115 | 1,308 | 807 | 333 | 565 | -232 |
| Not a citizen | 32,242 | 11,860 | 20,382 | 11,162 | 4,596 | 6,566 | 2,909 | 1,501 | 1,408 | 1,382 | 1,367 | 15 |
| Years in the United States |  |  |  |  |  |  |  |  |  |  |  |  |
| 1 or less | 468 | 300 | 168 | 179 | 125 | 54 | 110 | 0 | 110 | 73 | 23 | 50 |
| 2-3 | 877 | 559 | 318 | 366 | 107 | 259 | 97 | 19 | 78 | 71 | 139 | -68 |
| 4-5 | 2,017 | 1,048 | 969 | 701 | 406 | 295 | 47 | 60 | -13 | 172 | 162 | 10 |
| 6-10 | 9,768 | 4,442 | 5,326 | 3,063 | 1,365 | 1,698 | 710 | 674 | 36 | 536 | 354 | 182 |
| 11-20 | 22,243 | 7,686 | 14,557 | 6,970 | 4,360 | 2,610 | 1,982 | 865 | 1,117 | 489 | 642 | -153 |
| >20 | 19,285 | 6,944 | 12,341 | 5,600 | 3,103 | 2,497 | 2,078 | 1,191 | 887 | 374 | 612 | -238 |
| Education |  |  |  |  |  |  |  |  |  |  |  |  |
| 8th grade or less | 14,885 | 4,679 | 10,206 | 4,719 | 1,635 | 3,084 | 1,170 | 831 | 339 | 556 | 1,498 | -942 |
| Some high school | 22,570 | 7,910 | 14,660 | 6,618 | 3,010 | 3,608 | 2,710 | 1,185 | 1,525 | 950 | 2,533 | -1,583 |
| High school graduate | 32,401 | 11,295 | 21,106 | 13,075 | 6,099 | 6,976 | 5,909 | 2,656 | 3,253 | 1,514 | 4,649 | -3,135 |
| Some college | 39,808 | 17,954 | 21,854 | 19,470 | 11,413 | 8,057 | 10,559 | 5,279 | 5,280 | 1,731 | 4,260 | -2,529 |
| Bachelor's degree | 13,658 | 7,936 | 5,722 | 7,475 | 5,862 | 1,613 | 4,286 | 2,791 | 1,495 | 403 | 790 | -387 |
| Graduate degree | 6,142 | 3,535 | 2,607 | 3,058 | 2,757 | 301 | 1,774 | 1,349 | 425 | 369 | 420 | -51 |

Table B. 3 (continued)

Table B. 3 (continued)

|  | Los Angeles County |  |  | Orange County |  |  | San Diego County |  |  | S. San Joaquin Valley |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Flows In | Flows Out | Net Flows | Flows In | Flows Out | Net Flows | Flows In | Flows Out | Net <br> Flows | Flows In | Flows Out | Net Flows |
| 80-99 | 15,249 | 8,738 | 6,511 | 10,725 | 5,460 | 5,265 | 3,289 | 1,526 | 1,763 | 544 | 997 | -453 |
| 100+ | 23,295 | 12,022 | 11,273 | 11,800 | 10,952 | 848 | 4,835 | 3,342 | 1,493 | 607 | 822 | -215 |
| Housing tenure |  |  |  |  |  |  |  |  |  |  |  |  |
| Renter | 70,554 | 50,294 | 20,260 | 21,026 | 23,423 | -2,397 | 12,202 | 13,971 | -1,769 | 4,275 | 5,804 | -1,529 |
| Owner | 127,840 | 30,435 | 97,405 | 58,022 | 22,560 | 35,462 | 24,196 | 7,803 | 16,393 | 3,875 | 4,582 | -707 |
| SOURCE: Auth NOTES: Education households; wel table shows only | ns base ined for duals be the mos | on the dults ag veen ag migration | 000 Cen s 25 and s 18 and activity | s (PUMS ver; marit 4. Numb Data are | 5\%). <br> status r of yea vailable | for adults s in the for all reg | ges 18 <br> ted Sta s. | nd over; es is dete | poverty rmined | tus for the fo | ersons <br> ign-bor | The |

# Table B. 4 

## Industry Descriptions

| Industry | Description |
| :---: | :---: |
| Administrative and support services | Administrative and support services including office administrative; facilities support, employment, and business support services; travel arrangement and reservation services; investigation and security services; services to buildings and dwellings; and other support services. <br> Waste management and remediation services including waste treatment and disposal, waste collection and remediation, and other waste management services |
| Wholesale trade | Merchant wholesalers (durable and nondurable goods) and wholesale electronic (markets, agents, and brokers) |
| Transportation and warehousing | Air transportation, rail transportation, water transportation, truck transportation, transit and ground passenger transportation, pipeline and scenic and sightseeing transportation, support activities for transportation, couriers and messengers, warehousing and storage |
| Construction | Construction of buildings, heavy and civil engineering construction, specialty trade contractors |
| Professional, scientific, and technical services | Legal services; accounting, tax preparation, bookkeeping, and payroll services; architectural, engineering and related services; specialized design services; computer systems design and related services; management, scientific, and technical consulting services; scientific research and development services; advertising and related services; and other professional, scientific, and technical services |
| Accommodation and food services | Accommodation, food services, and drinking places |
| Retail trade | Motor vehicle and parts dealers; furniture and home furnishings stores; electronics and appliance stores; building material and garden equipment and supplies dealers; food and beverage stores; health and personal care stores; gasoline stations; clothing and clothing accessories stores; sporting goods, hobby, book, and music stores; general merchandise stores; miscellaneous store retailers; and nonstore retailers |
| Private education services | Private schools and other private education services |
| Mining | Oil and gas extraction, other mining, support activities for mining |

Table B. 4 (continued)

| Industry | Description |
| :--- | :--- |
| Arts, entertainment, and <br> recreation | Performing arts, spectator sports, and related industries; <br> museums, historical sites, and similar institutions; and <br> amusement, gambling, and recreation industries |
| Utilities | Electric power generation, transmission, and distribution; <br> natural gas distribution; and water, sewage, and other systems |
| Real estate, rental and <br> leasing | Real estate, rental and leasing services, and lessors of <br> nonfinancial intangible assets |
| Information | Publishing, motion picture and sound recording, broadcasting, <br> telecommunications, Internet service providers, web search <br> portals, DP services, and other information services |
| Finance and insurance | Credit intermediation and related activities; insurance carriers, <br> agencies, brokerages, and other insurance-related activities |
| Health care and social | Ambulatory health care services, private hospitals, nursing and <br> residential care facilities, and social assistance |
| assistance | Management of companies and enterprises |
| Management | Repair and maintenance; personal and laundry services; <br> and religious, grantmaking, civic, professional, and similar <br> organizations |
| Federal government services | Federal civilian employment including U.S. Postal Service |
| State and local | State and local government including public education and <br> public hospitals |
| government | Food, beverage, and tobacco products; textile mills; textile <br> product mills; apparel, leather, and allied products; paper, <br> printing, and related support activities; petroleum and coal <br> products; and chemical, plastics, and rubber products |
| manufacturing | Wood products, nonmetallic mineral products, primary metal, <br> fabricated metal products, machinery, computer and electronic <br> products, electrical equipment, appliances, components, <br> transportation equipment, furniture and related products, and <br> miscellaneous |
| Durable manufacturing |  |

SOURCE: California Employment Development Department descriptions are based on North American Industry Classification System categories.
NOTES: California Employment Development Department employment and projections data for the Inland Empire do not include "logging."

Table B. 5
Projected Employment Growth in California, by Industry, 2005-2015

| Industry | Employment (thousands) |  |  | Shares of Employment (\%) |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2005 | 2015 | Change <br> (\%) | 2005 | 2015 | Change |
| Administrative services | 975.6 | 1,303.2 | 33.6 | 6.6 | 7.5 | 0.9 |
| Wholesale trade | 665.5 | 779.5 | 17.1 | 4.5 | 4.5 | 0.0 |
| Transportation and warehousing | 432.9 | 500.5 | 15.6 | 2.9 | 2.9 | -0.1 |
| Construction | 865.4 | 1,031.0 | 19.1 | 5.9 | 5.9 | 0.1 |
| Professional, scientific, and technical services | 932.4 | 1,180.6 | 26.6 | 6.3 | 6.8 | 0.5 |
| Accommodation and food services | 1,222.6 | 1,444.0 | 18.1 | 8.3 | 8.3 | 0.0 |
| Retail trade | 1,643.5 | 1,924.3 | 17.1 | 11.1 | 11.1 | -0.1 |
| Private education services | 269.5 | 345.8 | 28.3 | 1.8 | 2.0 | 0.2 |
| Mining | 20.5 | 21.3 | 3.9 | 0.1 | 0.1 | 0.0 |
| Arts, entertainment, and recreation | 241.9 | 296.9 | 22.7 | 1.6 | 1.7 | 0.1 |
| Utilities | 56.4 | 59.3 | 5.1 | 0.4 | 0.3 | 0.0 |
| Real estate, rental and leasing | 279.6 | 314.1 | 12.3 | 1.9 | 1.8 | -0.1 |
| Information | 490.4 | 578.5 | 18.0 | 3.3 | 3.3 | 0.0 |
| Finance and insurance | 633.0 | 710.1 | 12.2 | 4.3 | 4.1 | -0.2 |
| Health care and social assistance | 1,325.8 | 1,649.7 | 24.4 | 9.0 | 9.5 | 0.5 |
| Management | 230.3 | 267.9 | 16.3 | 1.6 | 1.5 | 0.0 |
| Other services | 511.8 | 597.5 | 16.7 | 3.5 | 3.4 | 0.0 |
| Federal government | 251.9 | 260.7 | 3.5 | 1.7 | 1.5 | -0.2 |
| State and local government | 2,178.6 | 2,551.5 | 17.1 | 14.8 | 14.7 | -0.1 |
| Nondurable manufacturing | 557.7 | 561.0 | 0.6 | 3.8 | 3.2 | -0.5 |
| Durable manufacturing | 978.1 | 1,003.8 | 2.6 | 6.6 | 5.8 | -0.8 |

SOURCES: Authors' calculations based on California Employment Development Department industry data and projections for 2004-2014.

Table B. 6

## Percentage Distribution of Workforce Education in California, by Industry, 2000 and 2015

|  | Less Than High <br> School Diploma |  |  | Bachelor's Degree <br> or Higher |  |
| :--- | ---: | ---: | ---: | ---: | ---: |
| Industry | 2000 | 2015 |  | 2000 | 2015 |
| Administrative services | 32 | 33 |  | 15 | 15 |
| Wholesale trade | 19 | 13 |  | 24 | 30 |
| Transportation and warehousing | 19 | 18 |  | 14 | 14 |
| Construction | 34 | 37 |  | 9 | 8 |
| Professional, scientific, and technical |  |  |  |  |  |
| services | 2 | 0 |  | 62 | 71 |
| Accommodation and food services | 31 | 19 |  | 10 | 13 |
| Retail trade | 16 | 11 |  | 15 | 15 |
| Private education services | 4 | 1 |  | 57 | 64 |
| Mining | 12 | 6 |  | 20 | 16 |
| Arts, entertainment, and recreation | 17 | 14 |  | 25 | 25 |
| Utilities | 4 | 0 |  | 27 | 28 |
| Real estate, rental and leasing | 11 | 5 |  | 28 | 31 |
| Information | 5 | 3 |  | 46 | 50 |
| Finance and insurance | 3 | 0 |  | 40 | 43 |
| Health care and social assistance | 8 | 5 |  | 35 | 38 |
| Management | 5 | 7 |  | 57 | 75 |
| Other services | 24 | 18 |  | 21 | 22 |
| Federal government | 4 | 2 |  | 34 | 37 |
| State and local government | 5 | 3 |  | 49 | 52 |
| Nondurable manufacturing | 32 | 24 |  | 20 | 23 |
| Durable manufacturing | 20 | 19 |  | 32 | 33 |

SOURCES: Authors' calculations based on the 2000 Census and the 2005 and 2006 American Community Surveys.

Table B. 7
Percentage Distribution of Employers' Demand for Education, California Department of Transportation Projections, 2005 and 2015

|  | Less Than <br> High School <br> Diploma | High School <br> Diploma | Some <br> College | Bachelor's <br> Degree | Graduate <br> Degree |
| :--- | :---: | :---: | :---: | :---: | :---: |
| $\mathbf{c y y y y y}$ | Inland Empire |  |  |  |  |
| 2005 | 21.1 | 29.1 | 31.9 | 11.5 | 6.4 |
| 2015 | 17.9 | 36.9 | 26.0 | 12.6 | 6.7 |
| 2015 alt. | 21.0 | 29.5 | 32.0 | 11.4 | 6.0 |
| California |  |  |  |  |  |
| 2005 | 16.8 | 22.5 | 30.5 | 19.7 | 10.5 |
| 2015 | 12.9 | 28.8 | 25.3 | 20.9 | 12.0 |
| 2015 alt. | 16.3 | 22.3 | 30.7 | 20.0 | 10.8 |

SOURCES: Authors' calculations and projections based on the 2000 Census, the 2005 and 2006 American Community Surveys, and California Department of Transportation industry projections for 2005-2015. NOTES: Alternative projections for 2015 are based on the projected industry distribution in 2015 and the education distribution within each industry in 2005. These alternative projections are provided to demonstrate the importance of the shift toward higher-educated workers within industries.
Table B. 8
Employment, by Industry and Subregion, 2005 (thousands)

| Industry | Coachella Valley | Northwestern Riverside | San Jacinto Valley | Southwestern Riverside | High Desert | Western San Bernardino | Eastern San Bernardino |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Administrative services | 9.0 | 15.2 | 1.3 | 6.5 | 3.1 | 33.6 | 10.1 |
| Wholesale trade | 2.4 | 9.0 | 0.6 | 2.6 | 1.1 | 21.7 | 4.6 |
| Transportation and warehousing | 1.6 | 7.3 | 0.3 | 0.8 | 2.2 | 26.2 | 6.3 |
| Construction | 15.2 | 32.0 | 3.9 | 10.0 | 5.5 | 21.8 | 12.7 |
| Professional, scientific, and technical services | 3.2 | 7.0 | 0.9 | 2.1 | 1.6 | 7.1 | 6.6 |
| Accommodation and food services | 22.9 | 14.3 | 3.6 | 7.5 | 8.4 | 21.5 | 13.4 |
| Retail trade | 18.8 | 27.5 | 6.2 | 12.1 | 13.6 | 38.3 | 22.1 |
| Private education services | 0.6 | 2.5 | 0.1 | 0.4 | 0.9 | 1.2 | 4.7 |
| Mining | N/A | 0.2 | N/A | 0 | 0.3 | 0.1 | 0.2 |
| Arts, entertainment, and recreation | 5.3 | 2.2 | 0.6 | 1.1 | 0.6 | 2.6 | 1.4 |
| Utilities | 0.4 | 0.4 | 0.1 | N/A | 0.5 | 1.6 | 1.0 |
| Real estate, rental and leasing | 2.7 | 3.2 | 0.8 | 1.8 | 1.2 | 5.0 | 2.2 |
| Information | 2.1 | 3.3 | 0.5 | 0.8 | 1.6 | 3.5 | 1.4 |
| Finance and insurance | 2.5 | 5.8 | 0.6 | 1.9 | 1.6 | 7.9 | 5.8 |
| Health care and social assistance | 13.0 | 19.2 | 4.3 | 5.0 | 7.9 | 21.2 | 27.6 |
| Management | 0.5 | 4.2 | N/A | N/A | 0.2 | 3.0 | 3.2 |
| Other services | 4.4 | 7.4 | 1.1 | 2.3 | 2.0 | 7.6 | 6.2 |
| Federal government | 0.6 | 0.9 | 0.3 | 0.2 | 0.3 | 0.6 | 3.2 |

Table B. 8 (continued)

| Industry | Coachella <br> Valley | Northwestern <br> Riverside | San Jacinto <br> Valley | Southwestern <br> Riverside | High <br> Desert | Western San <br> Bernardino | Eastern San <br> Bernardino |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| State and local government | 16.5 | 57.0 | 10.0 | 11.2 | 12.9 | 25.1 | 53.5 |
| Manufacturing | 3.4 | 27.5 | 3.1 | 7.3 | 5.3 | 46.5 | 11.0 |
| SOURCES: Authors' calculations based on California Employment Development Department industry estimates and projections. |  |  |  |  |  |  |  |
| NOTES: N/A identifies industry and subregion combinations where data are not available. These industries have few employers and |  |  |  |  |  |  |  |
| employment data were suppressed by the California Employment Development Department to protect confidentiality. |  |  |  |  |  |  |  |

Table B. 9
Percentage Distribution of Employment Growth, by Industry and Subregion, 2005-2015

| Industry | Coachella <br> Valley | Northwestern <br> Riverside | San Jacinto <br> Valley | Southwestern <br> Riverside | High <br> Desert | Western San <br> Bernardino | Eastern San <br> Bernardino |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Administrative services | 39 | 42 | 47 | 44 | 43 | 41 | 39 |
| Wholesale trade | 39 | 41 | 47 | 43 | 38 | 41 | 37 |
| Transportation and warehousing | 31 | 38 | 34 | 37 | 26 | 37 | 37 |
| Construction | 28 | 31 | 33 | 31 | 30 | 29 | 29 |
| Professional, scientific, and technical |  |  |  |  |  |  |  |
| services | 37 | 38 | 31 | 40 | 37 | 36 | 36 |
| Accommodation and food services | 28 | 30 | 30 | 31 | 28 | 29 | 29 |
| Retail trade | 27 | 29 | 28 | 30 | 27 | 26 | 26 |
| Private education services | 27 | 28 | 22 | 26 | 36 | 25 | 26 |
| Mining | $\mathrm{N} / \mathrm{A}$ | 39 | $\mathrm{~N} / \mathrm{A}$ | 21 | 26 | 36 | 27 |
| Arts, entertainment, and recreation | 24 | 26 | 24 | 29 | 21 | 27 | 23 |
| Utilities | 16 | 19 | 21 | $\mathrm{~N} / \mathrm{A}$ | 16 | 15 | 16 |
| Real estate, rental and leasing | 17 | 20 | 20 | 23 | 19 | 20 | 18 |
| Information | 18 | 20 | 22 | 19 | 15 | 17 | 14 |
| Finance and insurance | 20 | 21 | 19 | 21 | 19 | 21 | 19 |
| Health care and social assistance | 24 | 25 | 25 | 27 | 24 | 25 | 23 |
| Management | 10 | 12 | $\mathrm{~N} / \mathrm{A}$ | $\mathrm{N} / \mathrm{A}$ | 12 | 9 | 29 |
| Other services | 21 | 22 | 20 | 22 | 20 | 21 | 9 |
| Federal government | -1 | -1 | -1 | -1 | -1 | -1 | 21 |

Table B. 9 (continued)

| Industry | Coachella Valley | Northwestern Riverside | San Jacinto Valley | Southwestern Riverside | High <br> Desert | Western San Bernardino | Eastern San Bernardino |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| State and local government | 23 | 23 | 24 | 23 | 22 | 22 | 23 |
| Manufacturing | 7 | 8 | 7 | 8 | 8 | 7 | 7 |

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[^0]:    ${ }^{1}$ Information on population growth from 1990 to 2006 comes from California Department of Finance (2006a, 2006b). Information on total employment from 1990 to 2004 comes from the California Employment Development Department (2006a).

[^1]:    ${ }^{2}$ For a detailed description of Inland Empire cities, see Husing (2005c).

[^2]:    ${ }^{1}$ Authors' calculations based on the 2006 American Community Survey.
    ${ }^{2}$ Authors' calculations based on the 2000 Census and the 2006 American Community Survey.
    ${ }^{3}$ Authors' calculations based on the 2006 American Community Survey. See Reed (2006) for estimates of poverty by California county with adjustments for housing costs.

[^3]:    ${ }^{4}$ Data in this paragraph are derived from the U.S. Bureau of Economic Analysis (2008).

[^4]:    ${ }^{5}$ See Husing (2005a) for a description of the Coachella Valley.

[^5]:    ${ }^{1}$ It is not possible to distinguish undocumented immigrants from other immigrants in the datasets we use.
    ${ }^{2}$ Based on the authors' tabulations of California Department of Finance estimates.

[^6]:    ${ }^{3}$ The 2004 American Community Survey shows that 57 percent of Inland Empire residents were born in California. Although we do not have information on place of birth within the state, large migration flows from other parts of California make it a certainty that a large share of California-born Inland Empire residents were born outside the Inland Empire.

[^7]:    ${ }^{4}$ Authors' calculations based on California Postsecondary Education Commission data, 2000-2004, for freshmen ages 19 and under.

[^8]:    ${ }^{5}$ The Inland Empire is home to several private universities as well. However, these universities are relatively small, with full-time undergraduate enrollments of fewer than 4,000 students total. The largest, the University of Redlands, enrolled about 600 fulltime freshmen in 2004 (according to National Center for Education Statistics data at http://nces.ed.gov/ipeds/cool/). Larger institutions, specifically the Claremont Colleges and California State Polytechnic University at Pomona, are located nearby in Los Angeles County.

[^9]:    ${ }^{6}$ See also Puri (2006).

[^10]:    ${ }^{7}$ Among those with a mortgage, 25 percent of Riverside County homeowners and 22 percent of San Bernardino County homeowners pay more than half of their income on housing costs.

[^11]:    ${ }^{1}$ Author's calculations based on the 2005 and 2006 American Community Surveys. The share of seasonal housing units among total units has not changed appreciably this decade, increasing from 21 percent of all units in 2000 to 22 percent in 2006.
    ${ }^{2}$ Based on state projections from the California Department of Finance.
    ${ }^{3}$ Population estimates for 2005 from the U.S. Census Bureau and the California Department of Finance are in close agreement for the Inland Empire, even though the two agencies' statewide estimates differ substantially. Projections by the Southern California Association of Governments (Southern California Association of Governments, 2004) are also lower than our projections. Those projections put the 2015 population of the Inland Empire at about 4.6 million.

[^12]:    ${ }^{4}$ We exclude the three most lightly populated regions from these discussions. Those regions, the Southern Mountains, the Northern Mountains, and the Eastern Desert, had total populations of 122,000 in 2000.

[^13]:    ${ }^{1}$ These results are based on the assumptions outlined in Appendix A.

[^14]:    ${ }^{2}$ This figure does not include self-employment or the farming sector. Almost 8 percent of workers in the Inland Empire are self-employed and the share is expected to fall to about 7.5 percent. The farming sector makes up about 1.5 percent of all civilian employment in the Inland Empire. This share is projected to decline to less than 1.1 percent by 2015. Inclusion of the farming sector in our analysis would not substantially change the results.

[^15]:    ${ }^{3}$ Other indicators for the region provide consistent evidence of growth in office jobs (Husing, 2006b).

[^16]:    ${ }^{4}$ The major shifts described in Table 5.6 are not substantially different when we use California Department of Transportation industry employment projections for 2005-2015 (see Appendix Table B.7).

[^17]:    ${ }^{5}$ Projections of school enrollment by the California Department of Finance suggest that the number of children in K-12 schools will increase 29 percent between 2005 and 2015 in the Inland Empire; by comparison, statewide enrollment is projected to increase by less than 1 percent.
    ${ }^{6}$ Occupational projections are from the California Employment Development Department. See Appendix A for details.

[^18]:    ${ }^{7}$ Table 5.7 shows the growth in employment share. All industries are expected to grow in every region, with the exception of federal government employment (see Appendix Tables B. 8 and B.9).

[^19]:    ${ }^{8}$ Almost half ( $48 \%$ ) of occupied housing units in the city of San Bernardino in 2006 were rental units, compared to less than one-third ( $31 \%$ ) of all occupied units in the rest of the Inland Empire, according to the 2006 American Community Survey.

[^20]:    ${ }^{9}$ See the Southern California Association of Governments' "State of the Region 2006-Quality of Life" report for other education indicators and trends, available at http:// www.scag.ca.gov/publications/pdf/2006/SOTR06/SOTR06_Quality.pdf.
    ${ }^{10}$ At UC Riverside's Palm Desert Graduate Center, students can earn either an MBA or an MFA in creative writing and writing for the performing arts.
    ${ }^{11}$ Analysis of specific strategies is beyond the scope of this study. See Alliance for Education (http://www.sbcalliance.org/) for a discussion of education strategies. Tornatzky and Barreto (2004) suggest that linkages with UC Riverside could provide positive economic development for Northwestern Riverside.

[^21]:    ${ }^{1}$ The main data sources used for this chapter do not identify subregions of the Inland Empire.

[^22]:    ${ }^{2}$ Voter information is from the PPIC Statewide Survey. For more information on this survey, visit www.ppic.org. Mark Baldassare, PPIC survey director, bears no responsibility for the interpretations presented or conclusions reached based on our analysis of the PPIC survey data.
    ${ }^{3}$ One difficulty in projecting voter participation is that our projection models rely on survey data. Voter participation records often show lower participation than selfreported survey data. For example, voter participation records from the Secretary of State for November 7, 2006, show statewide participation of 56 percent, whereas the Current Population Survey for November 2006 shows that 77 percent of registered voters in California reported that they voted. In PPIC Statewide Surveys over the period 2002-2007, 66 percent of registered voters reported that they always vote. All three sources of data show lower participation rates in the Inland Empire relative to those statewide ( $50 \%$ and $56 \%$, respectively, in the Secretary of State records for November 2006).

[^23]:    ${ }^{4}$ For a studies of civic and political participation among racial, ethnic, and immigrant-generation groups in California, see Ramakrishnan and Viramontes (2006) and Ramakrishnan and Baldassare (2004).

[^24]:    ${ }^{5}$ See also Wong (2006) for a discussion of political incorporation of Latino and Asian immigrants.

