

2005 Full Report

California Demographic Futures

Projections to 2030, by Immigrant Generations,
Nativity, and Time of Arrival in U.S.

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About the California Demographic Futures Research Program

The California Demographic Futures research program at the University of Southern California focuses on projections of population numbers and behaviors. Unlike projections issued by the U.S. Census Bureau or any state government in the nation, California Demographic Futures projections provide information on the nativity, decade of immigrant arrival, and immigrant generation of the population in a manner similar to changes in age structure or racial composition. This new information can provide the public and policy makers a much sounder basis than previously available for understanding of the dimensions and pace of the state's demographic transformation. The California Demographic Futures research program is conducted through the Population Dynamics Research Group of the USC School of Policy, Planning, and Development (<http://www.usc.edu/schools/sppd/research/popdynamics/>). Research support for this project has been provided by the Provost's Office through the USC Urban Initiative (<http://urban.usc.edu/>) and through the Dean's Office of the School of Policy, Planning, and Development.

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Executive Summary

This report offers a mid-decade view of California's demographic future, how the state's population has changed in the last 25 years, since 1980, the current situation in 2005, and a new projection of changes in the coming 25 years, to 2030. We stand at the mid-point of a 50-year span during which the California population is being rapidly transformed. The California Demographic Futures projections place special emphasis on tracing the growth and change of the foreign-born population and their native-born children, namely the second generation.

The foreign-born presence in California is much greater than in any other state. The 2000 census showed that 26.2% of California's population was foreign born, compared to 20.4% in New York, the next highest state. Immigrants and their children will comprise a substantial portion of the work force, consumers, taxpayers, and voters in coming years. For this reason it is crucial that population projections take explicit account of immigration factors in the overall population make-up.

The California Demographic Futures research program provides the first detailed insight on this dimension of the state's future. The 2005 report summarizes a major revision of the projections that we first reported in 2001, incorporating information from the 2000 census and introducing new detail on the second generation.

California's foreign-born population is growing markedly, increasing from 3.57 million in 1980 to 9.76 million in 2005, and is projected to grow further to 14.14 million in 2030. The share of the population comprised of the foreign born surged from 15.1% in 1980 to 27.0% in 2005 and is projected to rise more slowly by 2030, reaching 29.8%.

The foreign born percentage share of California's population is expected to grow slowly because the number of new immigrant arrivals is projected to remain constant each decade, instead of increasing as in past decades. Indeed, the anticipated slowdown that was projected in an earlier California Demographic Futures report has already commenced. In addition, although the total size of the foreign born population will continue to cumulate, its growth is balanced against rapid growth of the native-born population, many of them the children of immigrants.

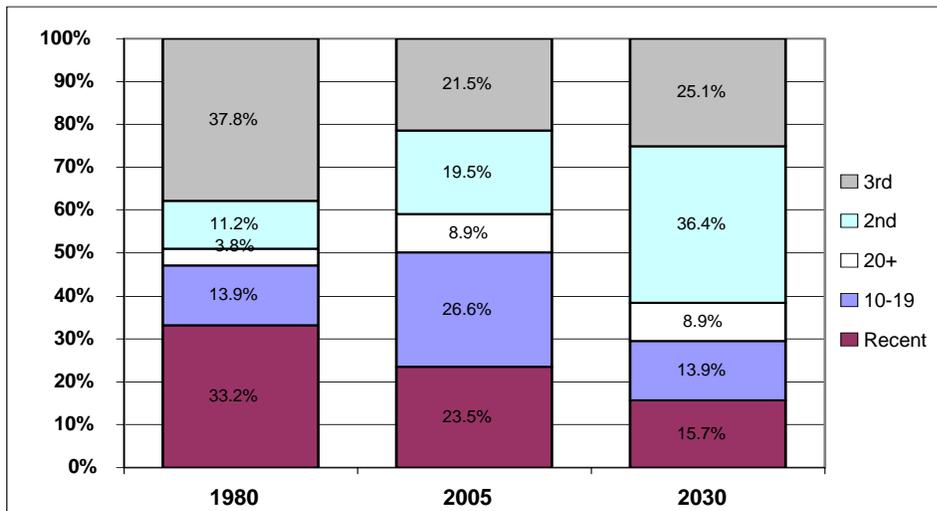
The second generation, i.e., the children of immigrants, has been much heralded as a feature of California society and it is beginning to grow rapidly. Among children ages 5 to 14, only 9.6% are foreign-born today, while fully 36.0% are second generation.

At ages 25 to 34, however, only 13.1% are currently second generation. Instead, 38.9% are foreign born. Looking forward to 2030, the proportion second generation at this age is projected to rise to 26.7%, while the proportion foreign born declines to 31.2%.

Within the foreign born population itself an unheralded transformation is under way. The average length of residence in the U.S. is rapidly rising. In 1980, roughly half the foreign born had lived in this country less than 10 years. In 2005, less than one-third of the foreign born were this recent, and by 2030, less than one-quarter will be relative newcomers.

Thus, the numbers of longer settled immigrants are rapidly rising, with major positive consequences. This is illustrated most clearly in the case of Latino young adults, ages 25 to 34. Their changing composition with regard to recency of immigrant arrival is shown in Exhibit A). The proportion who are newcomers is falling sharply, and the proportion who are second generation is expected to grow greatly.

Exhibit A
Percent of California Latinos Age 25-34 who are Recent Immigrants, Longer Settled, or Native-Born Second and Third Generation



It is well-known that the Latino population has below average years of education. What is not recognized is how much of that low attainment is generated by the preponderance of new immigrants in the Latino population. At present, among young adults age 25 to 34, only 37.1% of recent immigrants are likely to be high school graduates, but this share rises to 61.6% of those who have resided 20 or more years in this country, and to 83.5% among the second generation (Exhibit B). By 2030, a

much greater portion of young-adult Latinos will be long settled or second generation, and, all other things equal, the overall share who are high school graduates is expected to be substantially above the current level. This readiness for upward achievement lays the basis for even stronger gains if stimulated by proactive educational policies.

The health care industry is in rapid transition, and the current structure of health insurance coverage will surely change markedly in coming decades. Nonetheless, it is instructive to see how much health care access would shift in light of the changing population characteristics we project. Without health insurance, residents place disproportionate reliance on emergency rooms for basic medical services, placing a strain on county budgets. At present, only 31.4% of recent immigrants are reported to have health insurance, but this share rises to 64.9% of those who have resided 20 or more years in this country, and to 72.2% among the second generation. By 2030, a much greater portion of young-adult Latinos will be long settled or second generation, and, all other things equal, the overall share with health insurance could be expected to be substantially higher than the current level. This anticipated shift would progressively lower the population share that is uninsured and gradually lighten burdens on publicly funded health services.

Exhibit B
Percent of California Latinos Age 25-34 with Each Status
by Recency of Immigration or Generation of Native-Born

	Current Average	Recent	10-19 yrs	20+ yrs	2nd gen	3rd gen
High School Graduate	55.4	37.1	39.1	61.6	83.5	82.4
Health Insurance	55.7	31.4	49.1	64.9	72.2	75.6
Voter Participation	14.5	0.8	3.6	14.5	39.8	41
English Dominance	28.2	2	3	11	47	78

Source: Current Population Survey, 1998, 2000, and 2002; Pew Hispanic Center, 2002; 2000 Census

The changing foreign-born share of the population clearly has an impact on the likelihood of voting. In the nation as a whole, only 54.7% of adults are voter participants. This number results not only from reduced turnout of registered voters, but also from incomplete registration of those who are eligible to vote, as well as from the rising number of immigrants who have not naturalized to U.S. citizenship. Among our target group of California Latinos age 25 to 34, only 0.8% of recent immigrants are likely to have voted, yet this share rises to 14.5% of those who have resided 20 or more years in this country, and to 39.8% among the second generation (Exhibit B). The changing composition of the population in terms of length of residence clearly will shift the overall voting propensity. Back in 1980, 21.3% of Latinos age 25 to 34 are estimated to have been voters, and that declined to 19.0% in our current estimates for 2005. By 2030, a much greater portion of young-adult Latinos will be long settled or second generation, and, all other things equal, the

overall share who are active voters would be expected to rise well above the current level. This anticipated upward shift in per capita voting participation will progressively increase the influence of the Latino population in the electoral process in California.

Language use has been a “hot button” topic of immigration. A core concern of some observers, including the Harvard scholar Samuel Huntington, is that Latinos are immigrating more rapidly than they can be assimilated, resulting in a cultural bifurcation in America. The key indicator Huntington uses is Latino immigrants’ reliance on Spanish instead of English. In fact, many Latinos speak both English and Spanish, but here we use a measure of English dominance, based on language spoken at home and other factors. Our data indicate that only about 2% of recent Latino immigrants are likely to be English dominant, but this share is estimated to rise to around 10% of those who have resided 20 or more years in this country, and to 47% among the second generation and 78% in the third (Exhibit B). Back in 1980, our data suggest that English dominance was much more prevalent among Latinos (36.2%) than in 2005 (28.2%). This reflects the rapid growth of immigrants and a shrinking share of third generation members among Latinos. By 2030, based on the longer residency of Latinos and the growing second generation, the expected overall share that are English dominant must be expected to rise substantially. Huntington’s concerns may pertain to only a transitional episode in American history.

Looking ahead to coming decades, economic, social, and political life in California will be transformed by the growth, settlement, and progress of immigrants and their California-born children. Combined with the aging and migration of other residents, the state’s population will change markedly in years ahead.

The California Demographic Futures program of research at the University of Southern California is continuing to focus on projections of these population numbers and behaviors. Unlike projections issued by the U.S. Census Bureau or any state government in the nation, California Demographic Futures projections provide information on the nativity, decade of immigrant arrival, and immigrant generation of the population in a manner similar to changes in age structure or racial composition. This new information can provide a much better basis than previously available for understanding the state’s demographic transformation.

Introduction

This report offers a mid-decade view of California's demographic future, including how the state's population has changed in the last 25 years, a detailed profile of the current situation, and a new projection of changes in the coming 25 years, to 2030. We stand at the mid-point of a 50-year span during which the California population is being rapidly transformed. The California Demographic Futures projections place special emphasis on showing the growth and change of the foreign-born population and their native-born children, the "second generation."

The California Demographic Futures research program (see below) provides a new and detailed view of future changes. This 2005 report summarizes a major updating of the projections first reported in 2001, incorporating information from the 2000 census and more recent vital statistics data, and also introducing new detail on the second generation.

Certain elements of California's demographic transformation are generally understood, such as the growing share that is Latino (projected by the California Department of Finance to be 46.8% percent of the total in 2030). However, understanding of the immigrant dimension of the future is at best weak: trends are only known through 2000 or 2004 because there have been no other projections of the foreign-born population. Without information on the numbers of immigrants, their characteristics, and their children, over a long-term time period, we cannot understand the changes under way today. This critical information deficiency is addressed by the California Demographic Futures research program. Our results shed new light on the state's demographic transformation and reveal trends that have important implications for the state and everyone who has a stake in its future.

The Growing Importance of Foreign-Born Residents and Their Children

California's foreign-born population has grown rapidly for more than a quarter century, and the foreign-born presence in California is now much greater than in other states. The 2000 census showed that 26.2% of California's population was foreign born, compared to 20.4% in New York, the state with the second highest foreign born percentage. The impacts of immigrants in California and the state's policies on immigrants have at times been highly contentious issues, but the overall demographic

situation is widely accepted by all sides in these debates. Immigrants and their children will comprise a substantial and growing portion of California's work force, consumers, homebuyers, taxpayers, voters, and political leaders in coming years. For this reason, population projections that take explicit account of the immigration dimensions in the overall population make-up serve a vital public purpose: they provide a critical information base for policy discussions and, we hope and expect, will also contribute to better public policy results.

From 3.6 million in 1980 California's foreign-born population grew to 9.8 million in 2005, and, at the current level of immigration, is projected to grow further to 14.1 million in 2030. The share of the population comprised of the foreign born surged from 15.1% in 1980 to 27.0% in 2005 and thereafter is projected to rise much more slowly, reaching 29.8% in 2030. Meanwhile, the population share made up by their children, the second generation, will grow to 20.6% of the total in 2030. Among children, the second generation is especially prevalent, accounting for 36.0% of all school age children today.

As these children mature, the balance of growth of the population age 18 to 64, the "working age" population, that also includes most of the taxpayers and parents, is shifting from immigrants to their children. In the past 25 years, immigrants accounted for 66.9% of the growth in California's working-age population, while their children, the second generation, accounted for 10.8%. However, in the coming 25 years, even with immigration at its current level, the projected immigrant share of growth, 39.3%, is eclipsed by the 59.5% share of the children of immigrants.

New Trends and Transformations

The projections reflect shifts from the trends of the last 25 years. After years of acceleration, the foreign born share of California's population is expected to grow more slowly, principally because California's share of new immigrants to the U.S. has dropped off and because there is now net out-migration of the foreign born from California to other states. This slowdown in immigrant attraction and slowing growth in total number of foreign born residents was anticipated in the 2001 California Demographic Futures report.

In addition, the existing foreign born population is undergoing an unheralded transformation. The average length of residence in the U.S. is rapidly rising. In 1980, roughly half the foreign born had lived in this country less than 10 years. Since then, the average length of U.S. residence of the foreign-born rose 9% and it is projected to increase an additional 33% by 2030. For Hispanics, an increase of over 50 percent is projected. In the future, as much as three-quarters of the foreign-born population will be long settled. When combined with growing numbers of second generation children of immigrants, this will strongly alter the social and economic characteristics of the Latino population, in particular.

Implications of the Projections

Looking ahead to coming decades, economic, social, and political life in California will be transformed by the growth, settlement, and progress of immigrants and their California-born children. The new projections shed ample light on some of the major trends that lie ahead.

Four indicators of social and economic status are examined in this report: educational attainment, access to health insurance, voting participation, and English proficiency. The Latino population has been growing faster than other ethnic groups, and its average socioeconomic status has been fairly low. Accordingly, we examine the impact of deepening immigrant settlement with regard to the changes in the Latino population, focusing especially on ages 25 to 34. This age group of young adults is pivotal because they are newly filling the labor force, entering their productive economic years, and establishing their own families. The group is also significant because they are the most recent products of the state's educational system. Although many immigrants arrive as young adults, young Latino adults increasingly will be home grown.

The results clearly indicate that in the future the population of foreign stock (immigrants and their children) will on average be much more accomplished and civically integrated than in even the very recent past.

Outline of the Report

A summary of findings from the projections is presented in the next section. These highlight the changing composition of the population, emphasizing recency of immigration, growing numbers of long settled immigrants, and the growth of second and third generation native-born population. The population profile for 2005 is the central point of our narrative, and we contrast that to 1980 (25 years earlier) and 2030 (25 years ahead). The differences between changes in these two time periods are dramatic and have implications for public policies.

The need for immigrant detailed projections is discussed in a following section. Here we summarize the innovations of our projection series and discuss its evolution from prior reports. The 2001 report is especially noteworthy for the projection findings that have been subsequently borne out by new census data. Also discussed is our January 2004 report on California's declining attraction to new immigrants.

Following that, we present a summary explanation of the model's methodology and projection assumptions, which have been developed by John Pitkin over an 8-year time period. Procedures used to validate the model are also cited in this section.

Finally, we apply the projection data to measures of social and economic standing using four indicators: educational attainment, access to health insurance, voting participation, and English proficiency. Our findings clearly indicate potential for a “rising tide” of progress for California’s growing immigrant populations. In this new environment, there is great scope for positive changes that can be accelerated by public investments.

Findings from the Projections

The projections are highly detailed, covering each single year from 2000 through 2030, and pertaining to single years of age for each person in the state. Obviously, to grasp the overall patterns, we need to summarize the projections in various ways. In addition, to establish better context, we contrast the data for 2030 against that for 2005 and for 1970 or 1980 in the past. This long perspective helps to provide much better insight about changes currently under way.

This section begins with an overview of the projection findings before delving into the topic of immigrant generations, and then concludes with presentation of racial and ethnic population differences within this framework.

Overall Population Projections

We estimate the current California population to be 36.7 million, growing to 49.6 million residents in 2030 (Exhibit 1). Population growth will average about half a million per year during this interval. These population totals are not novel or surprising, because they are very similar to projections independently developed by the California Department of Finance (2004). Indeed, given the argument that a wide variation exists among alternative population projections, the relative congruence between the California Demographic Futures (CDF) and the Department of Finance projections may be reassuring to users.

Projections by Nativity, Recency of Immigrant Arrival, and Generation

The series of projections introduced in this report are distinguished by the added detail they afford on the nativity (foreign-born or native-born status), year of immigrant arrival, and generation of native-born residents. Foreign-born residents are considered first generation, and their children are termed the second generation. Those with native-born parents are termed third generation, joining them with those whose families may have lived in the U.S. for centuries.

A long view of the native-born and foreign-born structure of California's population is afforded in Exhibit 2. The total population each decade is apportioned into key

components. The native-born population is the majority each decade, most of which is of third or higher generation. The second generation grows in number from 2 million in 1970 to 10.2 million in 2030.

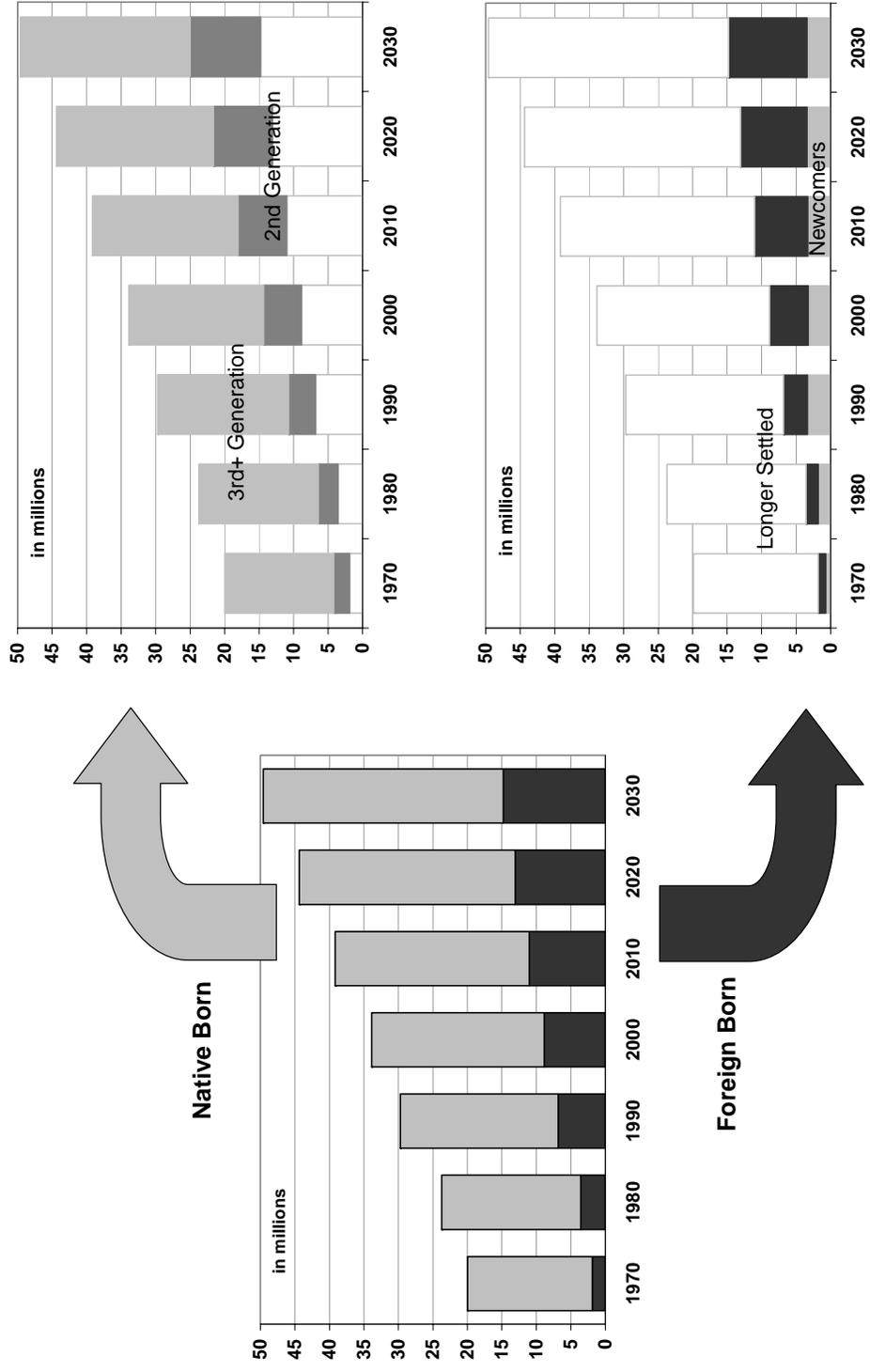
Exhibit 1
Total California Population, 1970 to 2030

Source	1970	1980	1990	2000	2005	2020	2030
Census^a	19,957,770	23,724,640	29,715,727	33,884,660			
annual increase		376,687 1.9%	599,109 2.5%	416,893 1.4%			
CDF^b					36,688,807	44,351,650	49,589,749
annual increase					560,829 1.7%	520,256 1.3%	523,810 1.2%
DOF^c					36,852,403	43,851,741	48,110,671
annual increase					593,549 1.8%	460,497 1.2%	425,893 1.0%

Notes: a Population (April), Average Annual Increase from previous Census
b Population (January), Average Annual Increase from previous year
c Population (July), Average Annual Increase from previous year

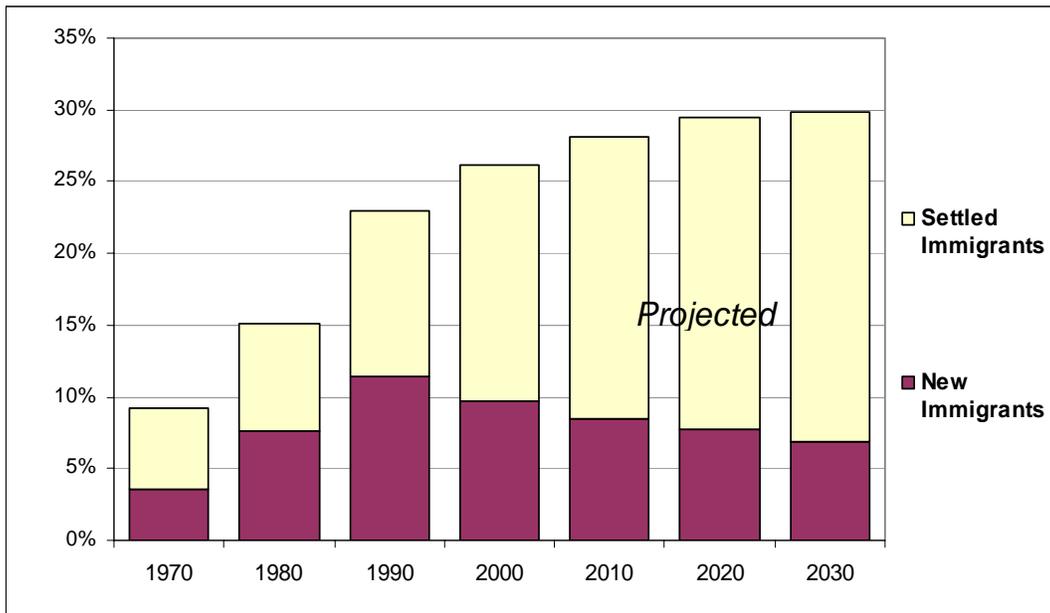
The foreign-born component is displayed in the lower portion of Exhibit 2. That group is comprised of newcomers who arrived in the last 10 years and longer settled immigrants who have lived in the U.S. for at least 10 years, many for 20 years or longer. From 1990 to 2000, the number of newcomers remained virtually constant, after growing markedly the preceding decades, and in coming decades we expect the number of newcomers to retain that size. (Detailed explanation for this reasoning is provided in the section on methodology and assumptions.) Meanwhile, the longer settled contingent of the foreign born has been rapidly growing and will continue to do so, reaching 11.4 million California residents in 2030.

Exhibit 2 Population by Nativity, Generation, and Recency of Immigrant Arrival



Another way to view the changing composition of the total population is portrayed in Exhibit 3, breaking out the native-born and foreign-born portions of the population. Each segment is further subdivided into the third and second generation components, for the native born, and into newcomers and long-settled immigrants, for the foreign born. In this view, it is clear how much the second generation is growing in number and how much of the foreign born growth is stemming from an increase in long-settled population.

Exhibit 3
Percent Immigrant Share of the Total Population, 1970 to 2030



The foreign-born percentage share of the population is given in Exhibit 3. From a low of 9.2% in 1970, California's percent foreign born increased sharply to 21.7% in 1990, then began to grow more slowly by 2000 and is beginning to level off, likely to only reach 29.8% in 2030. This leveling occurs because the native born population is also growing and because some of the foreign born are beginning to migrate out of California. Also shown in Exhibit 3 is how the recent immigrant arrivals make up a progressively smaller portion of the foreign born. From 1970 to 1990, during the phase of accelerating immigration, half of all the foreign born each decade were recently arrived, but with a more stabilized flow of new arrivals that fraction is now receding to only one-third or one-quarter of the total foreign born. As described in detail in a later section, the growing preponderance of long-settled immigrants has very positive implications for a host of social and economic outcomes.

Age-Nativity Pyramids

The prevalence of immigrants and members of the second generation varies substantially by age. Most immigrant newcomers arrive in their 20s, and the second generation children, who are born soon after, are some 20 to 30 years younger than their parents. The traditional way to display population age structure is the age-sex pyramid. For our purposes, we can adapt the same design to display an age-nativity pyramid, with foreign-born residents shown on the left side and native-born residents on the right (Exhibit 4).

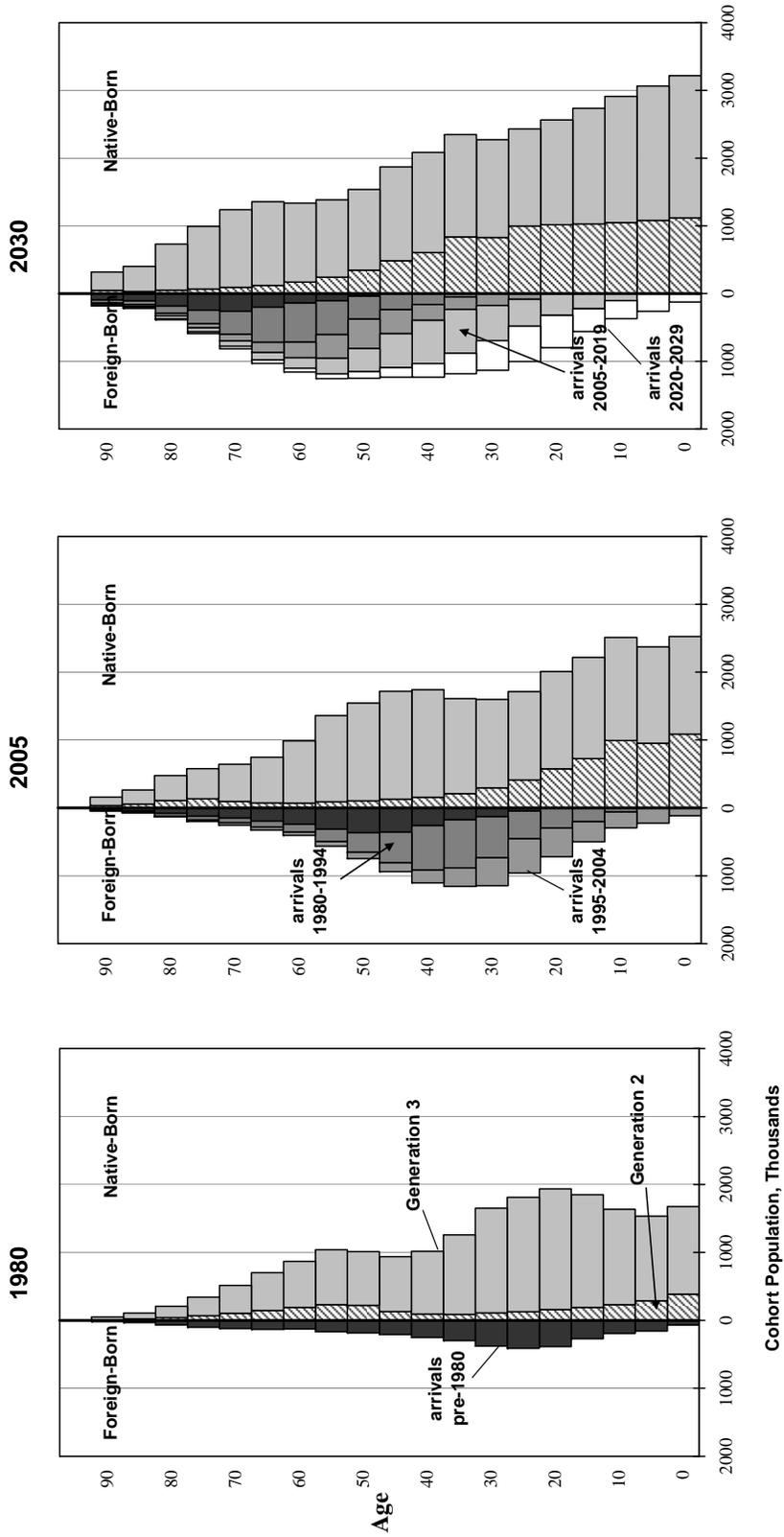
Our exhibit also displays major components within the foreign-born population, identifying separately those that arrived in the U.S. before 1980 or in subsequent periods. On the native-born side we break out those who are second generation, i.e. the children of immigrants, from those who are third or higher generation. By contrasting the pyramid for 1980 against those for 2005 and 2030, we gain a rich depiction of California's population change, one that traces changes each quarter century for a total of 50 years.

In 2005, we can see how many of the immigrant residents are in their 20s, 30s and 40s. The earliest arrivals are even concentrated in their 50s, but the larger bands of subsequent arrivals are concentrated at younger ages. Instead of immigrant youth, we see second generation children of immigrants, the great majority of whom today are under age 20.

By 2030, large numbers of second generation residents will have reached their 40s, and the number of third generation residents has also grown as these second generation adults have children of their own. This adds to the total number of children produced by today's third generation parents.

The well-known baby boom generation can also be identified in these pyramids and traced across the quarter-centuries. In the 1980 pyramid, this generation born 1946 to 1964 would be approximately ages 15 to 34. The vast majority of this group is third generation or more, and the bulge of baby boomers is clearly visible on the right hip of the pyramid. At present, the baby boomers have grown older, however reluctantly, and the population bulge has now risen to the shoulder of the pyramid, spanning ages 40 to 59. In 2030, the baby boomers march on, swelling the ranks of the elderly from ages 65 to 84. By that date, the bulk of the baby boomers will have retired from the labor force and been replaced by recent immigrants and second generation residents, among others.

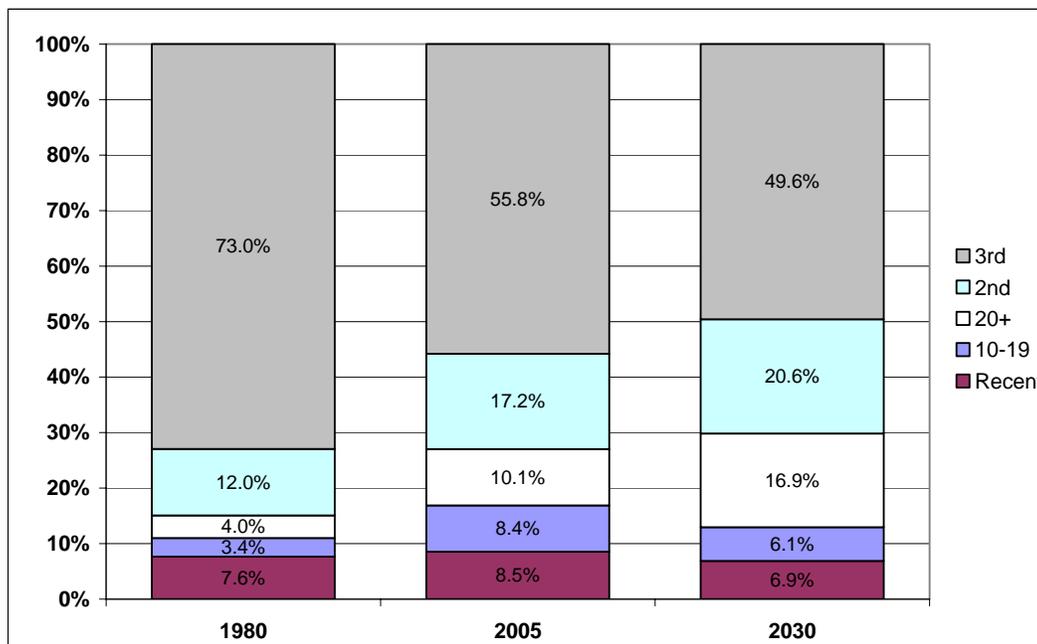
**Exhibit 4
Age-Nativity Pyramids, with Arrival Decade and Generation**



Source: California Demographic Futures, 2005 Report, USC

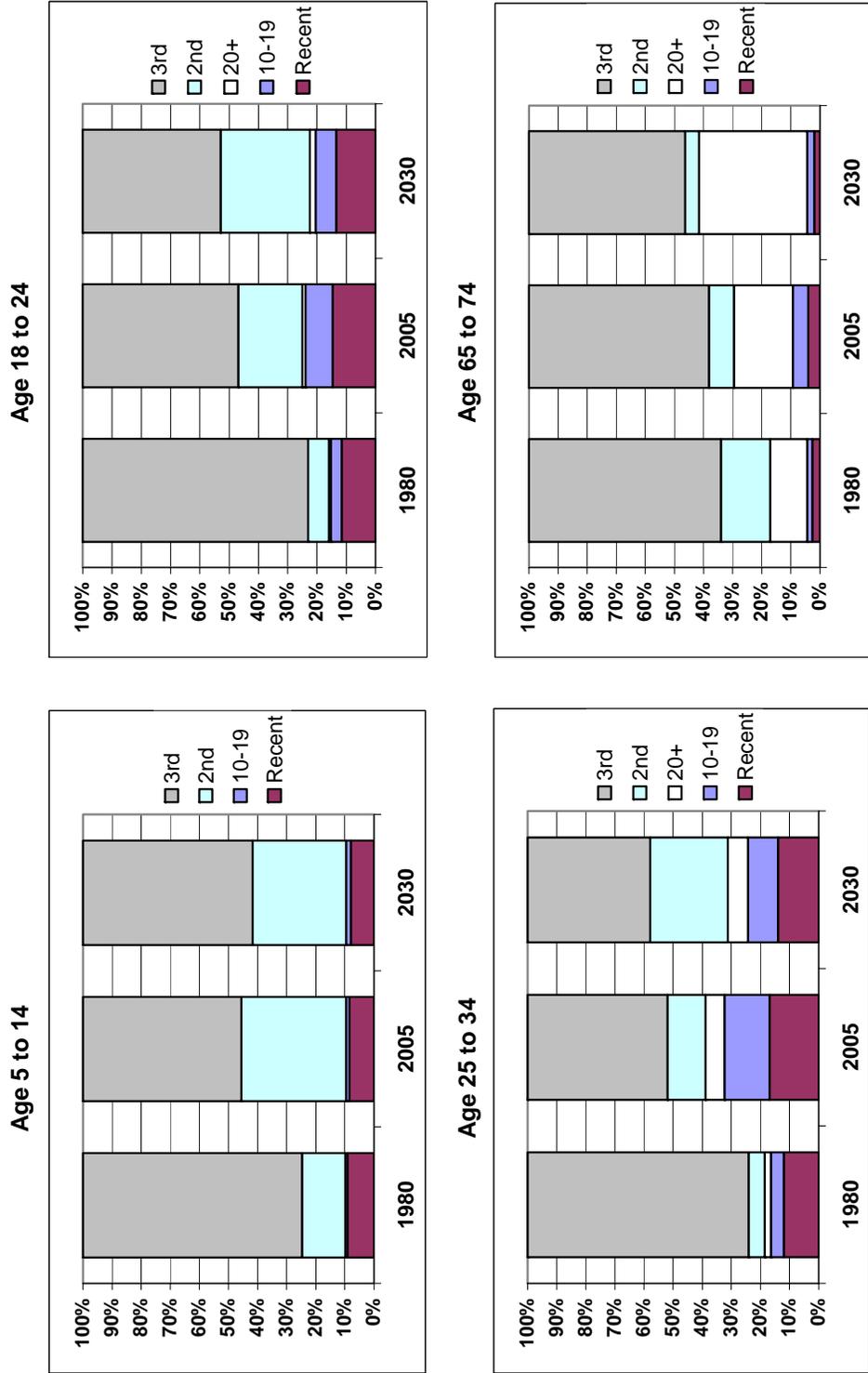
As useful as the age-nativity pyramid design is for viewing population structure, it is awkward for performing measurements or making specific comparisons. For that purpose we need to take “slices” through the population profiles of each decade. Exhibit 5 summarizes the total composition of each pyramid in its elements of generation and recency of immigrant arrival. The decline of third generation residents is striking, falling from 73.0% in 1980 to 55.8% at present, and projected to decline further to 49.6% in 2030. Instead, two components have grown markedly: the second generation, from 12.0% to 20.6%, and long-settled immigrants of 20 or more years duration, from 4.0% to 16.9%.

Exhibit 5
Population Composition, by Generation and Recency of Immigrant Arrival



A more-focused slice through the pyramid is achieved by examining specific age groups (Exhibit 6). Among school age children, ages 5 to 14, the immigrant presence is less than 10% in every time period. Instead, the second generation accounted for 14.8% of children in 1980, 36.0% in 2005, and 32.2% in 2030. The remainder of the school-age children are third generation. Even though that component shrank from 1980 to 2005, it begins to expand again through 2030.

Exhibit 6
Population Composition of Age Groups, by Generation and Recency of Immigrant Arrival

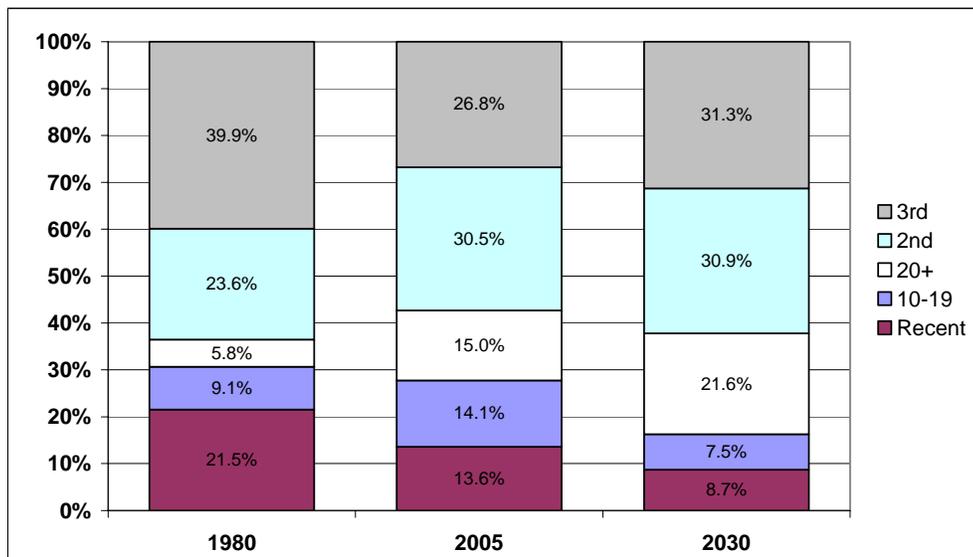


Young adults ages 25 to 34 represent a crucial group for several reasons. These are the newly established workers in the labor force, the next generation of tax payers, the heads of consumer units, and the parents of the next generation. Adults this age also represent the most recent product of the California educational system, and so they play a pivotal role in our intergenerational investments. As shown in Exhibit 6, the third generation has declined most sharply for this group, but the second generation also will expand most sharply, growing from 5.6% of the age group in 1980 to 13.1% at present, and then doubling to 26.7% by 2030. These children of immigrants, along with the 42.1% who are third generation, will have a very prominent role.

As a final age slice, we examine those ages 65 to 74. The third generation declines least among this group (comprised of the baby boomers in 2030), but the second generation actually shrinks. The elderly of 1980 contained many who were children of parents from the great immigration wave early in the 20th century, but those numbers declined markedly by 2005. What is most striking is how large a share of the future elderly will be comprised of immigrants long settled in the U.S. Already today, 29.5% of this elderly age group are foreign born, and in the future this fraction will grow to 41.6%. It is not known if our various public and private support services are attending well to the needs of these foreign born elderly.

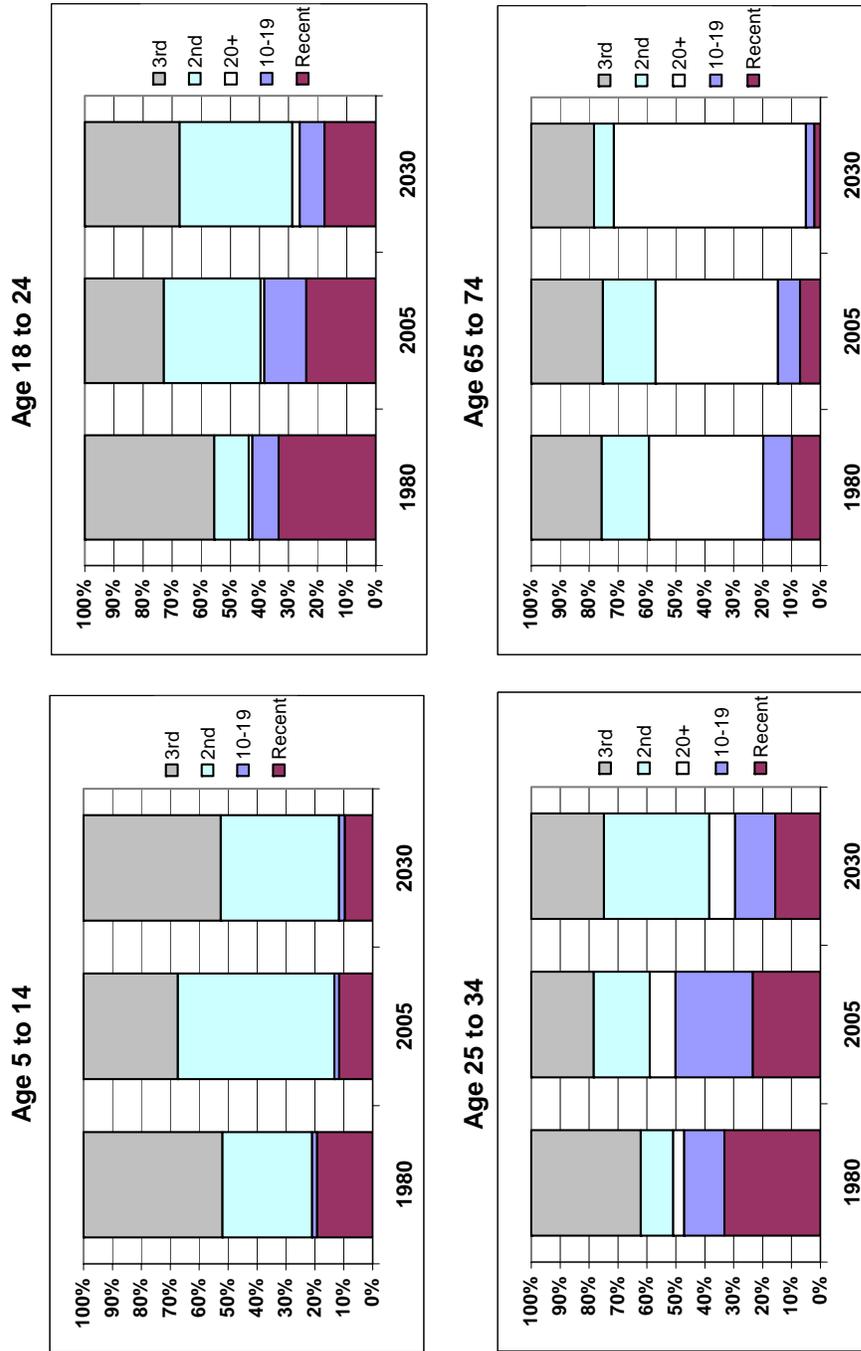
Similar data can be broken out for each separate ethnic group, as shown in the next section. Here we simply repeat the preceding two figures for the Latino population alone. In Exhibit 7, it is evident that a large a share of the Latino population in 1980 was composed of recent immigrant arrivals (21.5%); this declined to 13.6% in 2005,

Exhibit 7
Latino Population Composition, by Generation and Recency of Immigrant Arrival



and is expected to fall further by 2030. At the same time, the fraction made up of long-settled immigrants has steadily risen, and the second generation has increased as well. Further details for Latinos are shown in Exhibit 8, comparing different age groups. Among Latinos ages 5 to 14, very few are immigrants, and a large fraction are second generation.

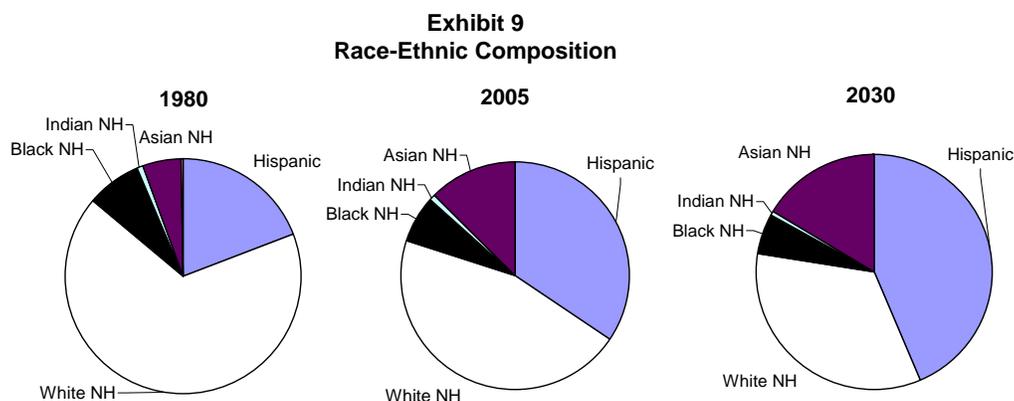
Exhibit 8
Population Composition of Latino Age Groups,
by Generation and Recency of Immigrant Arrival



Growth of Race-Ethnic Groups

Intersecting the growth of the population by nativity and generation is the racial and Hispanic or Latino membership of the various population components. This is the best known dimension of population change in California, but it is better understood in the context of nativity and generation.

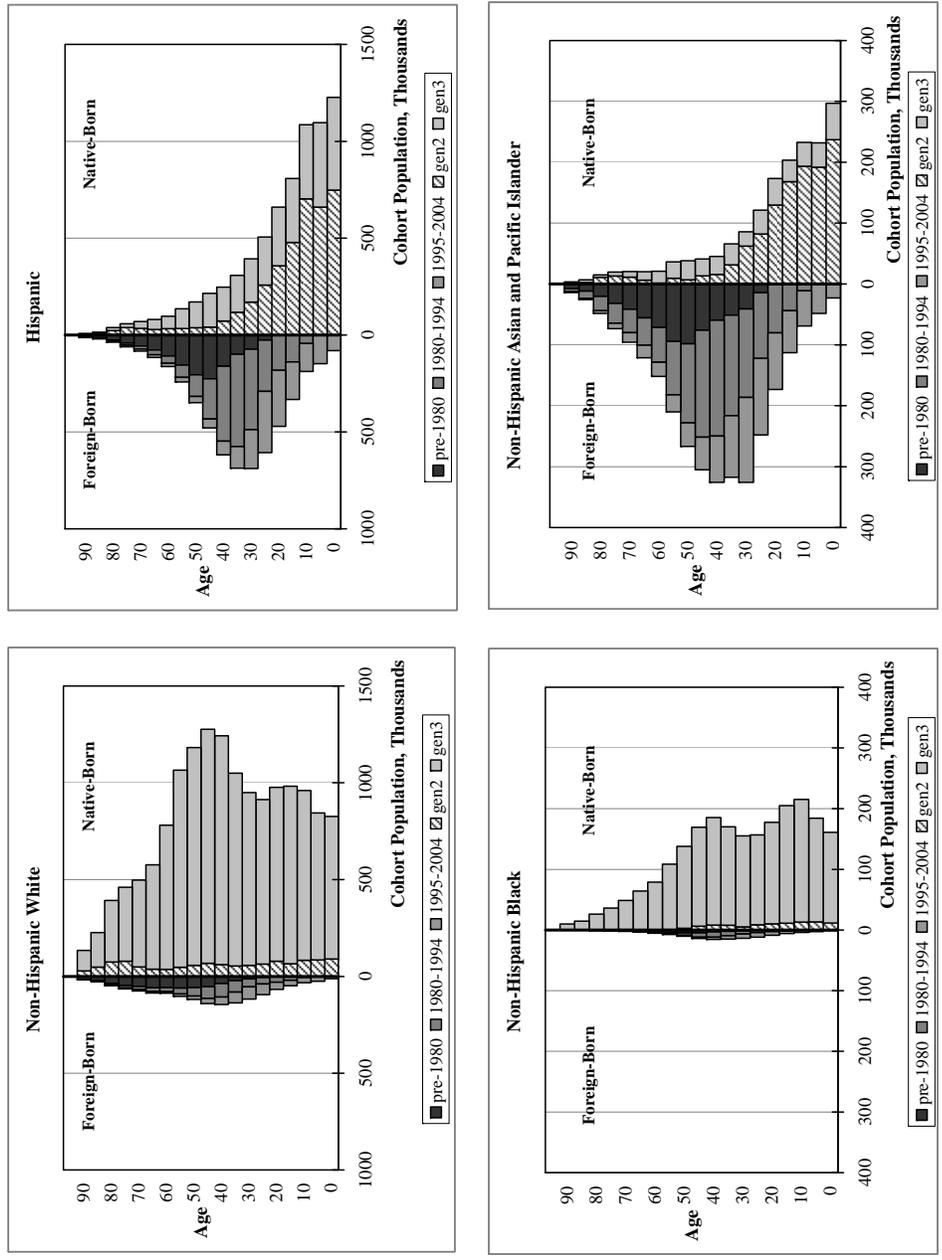
A summary of the ongoing racial and ethnic changes is provided in Exhibit 9. Whereas, in 1980, the non-Hispanic white population was two-thirds of the state population, by 2005 it was markedly below 50% and by 2030 the group is projected to represent little more than one third of the population. In contrast, the bulk of the state's population growth has been comprised of Latinos. Their share of the state total has grown from 19% in 1980 to 34% in 2005 and will still be less than half the total in 2030. California is in the midst of a protracted period (perhaps 40 years long) when no racial or ethnic group will comprise a majority of the state's population.



Each major racial and Hispanic groups has a very distinctive profile in terms of immigrant arrivals and native-born generations. Viewed in 2005, the age-nativity profiles are striking (Exhibit 10). Only a tiny sliver of the black or African American population living in California is foreign-born or second generation. Somewhat more of the non-Hispanic white population is foreign born or second generation. One feature that does stand out for these two groups is the imprint of the large baby boom generation, something scarcely visible among the Latino or Asian and Pacific Islander populations.

Among Latinos, the second generation is especially prominent, accounting for over half the total age group members under age 15. Moreover, the size of this second generation is equal to the size of the largest foreign-born population in any age groups (those ages 30 to 39).

Exhibit 10
Age-Nativity Pyramids by Race and Hispanic-Origin, 2005



Source: California Demographic Futures, 2005 Report, USC

In contrast, the Asian group has no more than half the numbers of foreign born in any age group than does the Latinos (note the difference in the horizontal axis scale). Yet these Asians stand out in several respects. Foremost, the foreign born cohorts are relatively much larger than the native born, the opposite of the Latinos. Not only is the third generation proportionally much smaller than among Latinos, but the second generation is relatively small in comparison to the immigrant cohorts. Four Asian parent-age cohorts exceed 300,000 immigrant members, but only one child-age cohort reaches 200,000 members.

In general, the size of the second generation is not as large as many have presumed based on California's large and growing immigrant population. Not only is the fertility of Asian immigrants very low, but among all foreign born, the average fertility today is roughly half that experienced among immigrant women early in the 20th century.¹ Thus the multiplier from first to second generation is half what it once was. The fewer second generation children that are being born today will have proportionally greater social and economic responsibilities when they replace their parents in the major duties of middle age.

The growing prominence, and changing nature, of the Latino population is best reflected by their role in the working age population. Here we present that role in the context of immigrant and native born populations. From 1980 to 2005, the working age population (18 to 64) in California increased by 8.0 million persons, while in the phase from 2005 to 2030 this growth will subside to 6.1 million persons, in large part because of the retirement of the large baby boom generation (Exhibit 11). In the early period, 66.9% of the increase was contributed by foreign born residents. However, in the coming 25 years, the foreign-born contribution will decline, and instead, 59.5% of the future growth in working age population will be due to the growing number of second generation residents.

Exhibit 11
Share of Growth in Working Age Population,
Past and Coming 25 Years,
Accounted for by Different Generations

25-year Change

<i>By Nativity and Generation</i>	1980 to 2005	2005 to 2030
Native-Born, Third Generation	22.4	1.1
Native-Born, Second Generation	10.8	59.5
Foreign-Born	66.9	39.3
Total Change	100.0 8,049,383	100.0 6,064,961

<i>By Nativity, Generation, and Hispanic Origin</i>	1980 to 2005	2005 to 2030
Native-Born, Third Generation		
Hispanic	10.1	23.9
Other	12.2	-22.7
Native-Born, Second Generation		
Hispanic	10.5	43.3
Other	0.3	16.2
Foreign-Born		
Hispanic	39.7	23.7
Other	27.1	15.7
Total Change	100.0 8,049,383	100.0 6,064,961

The rapidly growing Latino population is central to both of these phases of labor force growth. In the last 25 years, immigrant Latinos alone accounted for 39.7% of working age growth—over half of the total immigrant contribution (Exhibit 12). In the coming 25 years, Latinos who are immigrants will account for only 23.7% of working age growth. Instead, second-generation Latinos will account for 43.3% of the state’s working age growth—more than two-thirds of the total second-generation contribution. When Latinos who are third generation are added to the mix, in the coming period, Latinos will likely account for 90.9% of the growth in working age population. We return to this issue in the later section on implications of the projections.

Previous Studies

The present projections emerge from a long line of research work by the project team. The next section offers a detailed view of the methodology and how it has evolved over the last 9 years, since the original work reported by John Pitkin and Patrick Simmons in 1996.² Here we present a summary of research findings related to models of population growth and change, with particular emphasis on cohort trajectories and immigrant dynamics.

The researchers have published numerous studies related to cohort modeling of population, including a recent treatise on cohorts and socioeconomic progress over the last five decades, early work on immigrant upward mobility, and a series of other demographic and social science studies related to immigrant assimilation traced across decades.³ These studies have laid the basis for understanding the role of growing length of settlement in reshaping behavior and outcomes for foreign born residents.

2001 Report

The key obstacle to using information about immigrant transformation for projections is that no population projections have existed that detail the number of residents by their nativity and length of U.S. residents. That void was filled by the 2001 report that introduced the California Demographic Futures project.⁴ Prepared before the detailed results of the 2000 census had been released, the 2001 report also allowed us to test projection model designs against the eventual findings from the census. Three key findings highlighted in the 2001 report projected turnarounds that were subsequently borne out by 2000 census data when they were released in summer 2003.

One key finding from the 2001 projections was that the total immigrant share of the California population is beginning to level off after two decades of steep increases. The projection model reported that the immigrant share, after decades of escalation, would plateau at about 26.4% of the total state population by 2020 (a figure lower than the 29.4% projected in the 2005 report that incorporated results of the 2000 census).

The 2001 report also found that the share of state population made up of newcomer immigrant residents (arrivals within the past 10 years) had already peaked and was now declining. The immigrant newcomer share of the state's population had risen from 3.4% of the state's population in 1970, to 7.6% in 1980, and to 11.1% in 1990. The share was projected by the 2001 report to have fallen to 8.3% in 2000 and projected to be 6.1% in 2020.

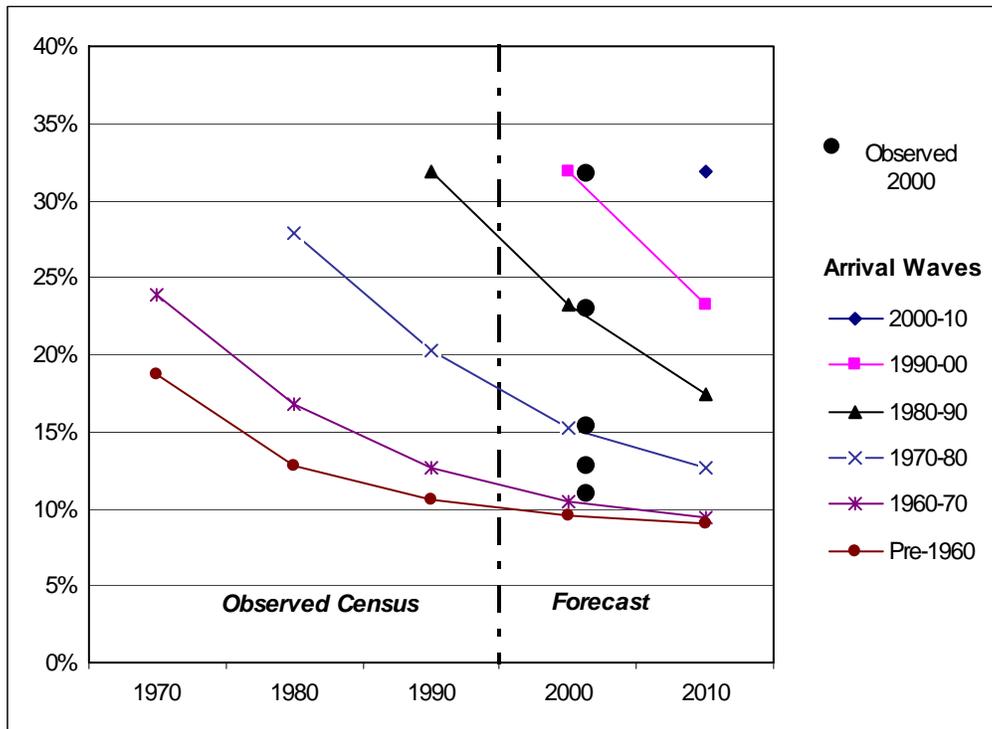
In fact, the 2000 census did confirm a turnaround in the new immigrant share, although the drop off was only to 9.7% in 2000. The basic shape of the turnaround we had projected and publicized was confirmed.⁵ A postmortem on the earlier projections revealed key reasons for the deviation from eventual 2000 census data, and we have now incorporated those lessons and others into the latest generation of the model (see the next section).

A further finding of the 2001 report pertained to the poverty rate of immigrants. This indicator was selected as a key expected outcome derived from integrating projected population trends with projected assimilation rates by immigrant residents. The expected finding was that the worsening trend in immigrant poverty would be reversed after decades of increase. Poverty had increased from 14.8% of the foreign born in 1970, to 17.6% in 1980 and 19.8% in 1990. These increases occurred despite booming economic prosperity in the years immediately preceding each census. The explanation offered for this trend was that new immigrant arrivals tend to have much higher poverty rates than those residing for more than 10 years, and the rapid increase in the number of new arrivals had pushed up the overall poverty rates of the foreign born.⁶

Drawing upon the 2001 immigrant population projections, and applying the different poverty rates expected for recent and long resident immigrants of each duration length, we projected a reversal of this upward poverty trend, with a lessening from 19.8% poverty in 1990 to 18.2% of the foreign born residents in 2000. The actual figure eventually reported by the 2000 census (18.7%) did decline, although only two-thirds as much as we had projected it would.

The power of cohort projections is not widely known, and this example may be a good one for illustration. The 2001 report displayed some very specific projections for Latino immigrants who had arrived in the 1990s, 1980s, 1970s, or before. The available data from the 1970, 1980, and 1990 censuses was used to trace trajectories of the falling poverty rate, and to construct projections expected as these immigrant cohorts resided longer in the U.S. The original projections from the 2001 report are displayed below, along with a series of black dots to indicate what the poverty rate was for the cohort actually recorded by the 2000 census. (These eventual numbers were not released by the Census Bureau until summer 2003.)

**Exhibit 12:
Projected versus Observed Poverty Rate Trajectories
for Latino Immigrants in California**



The above graphic illustrates poverty trajectories for Latinos, the group supposedly most mired in poverty. Each line corresponds to an arrival wave from each successive decade, showing its history of declining poverty over time. For example, the arrivals in the 1970-80 period began their U.S. residence with 27% poverty in 1980, declining to 20% in 1990, and projected to fall to 15% in 2000. Superimposed on the forecast trends are black dots representing the actual values reported in the 2000 census. For the three most recent waves of arrivals there is a remarkably close correspondence between the observed and projected data. Only for the longest resident immigrants did we over project the declines in poverty. (The two lowest black dots correspond to observed poverty rates for arrivals of the 1960-70 and pre-1960 periods, among the smallest of all immigrant groups. The uptick in poverty for those long-resident groups is likely because they have aged into elderly years.)

The turnaround is created largely by the fact that immigrant newcomers had been growing in number while immigration to California was accelerating. Once the inflow leveled off, the previous arrivals ceased to be outnumbered by newcomers, and the rising fortunes of these settled immigrants pulled down the average poverty for all immigrants.

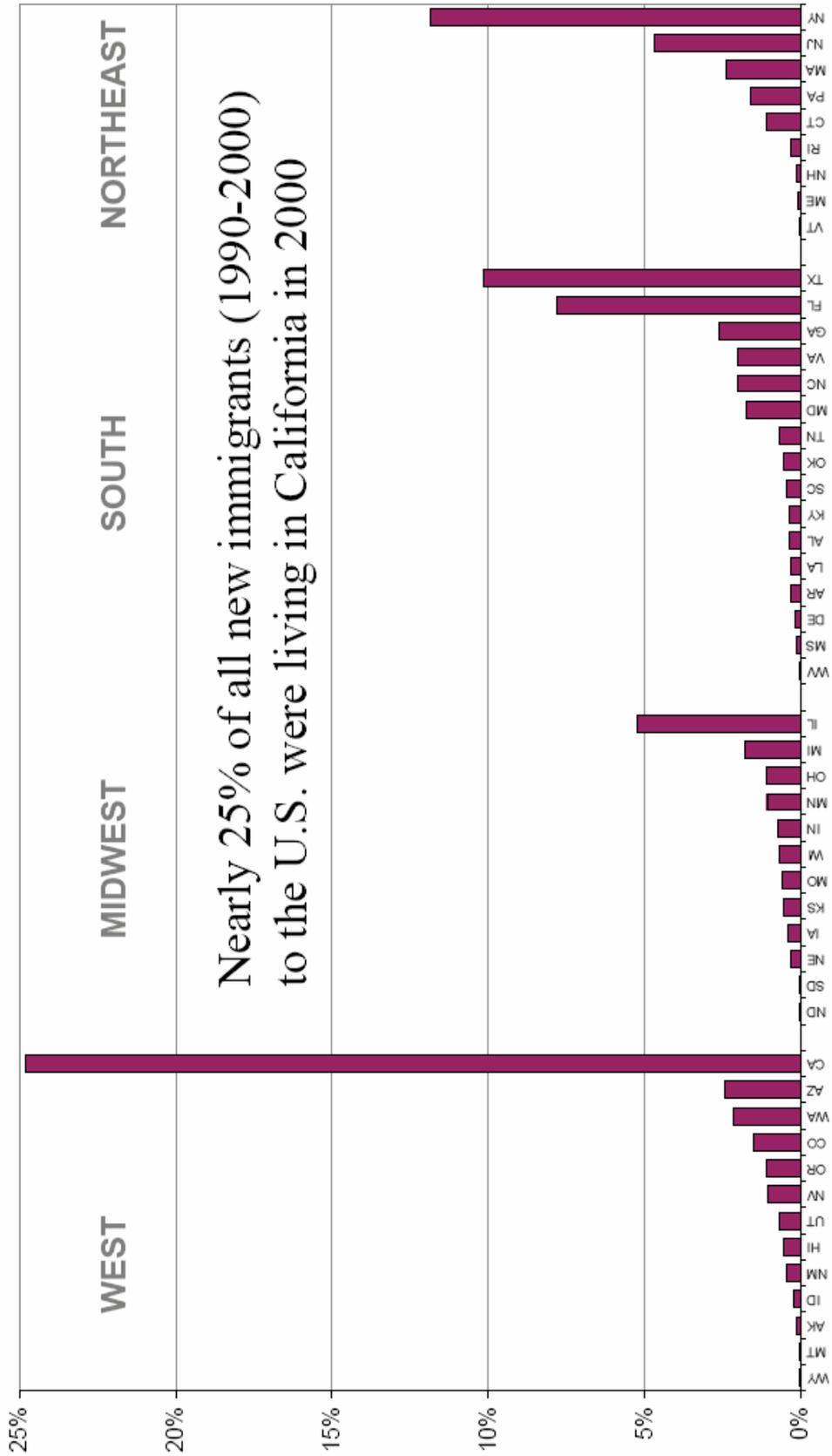
Studies After 2003 with 2000 Census Data

Following the eventual release of detailed data from the 2000 census (variables include immigration, economic status, etc.) in summer 2003, a number of studies were completed in anticipation of developing improved population projections.

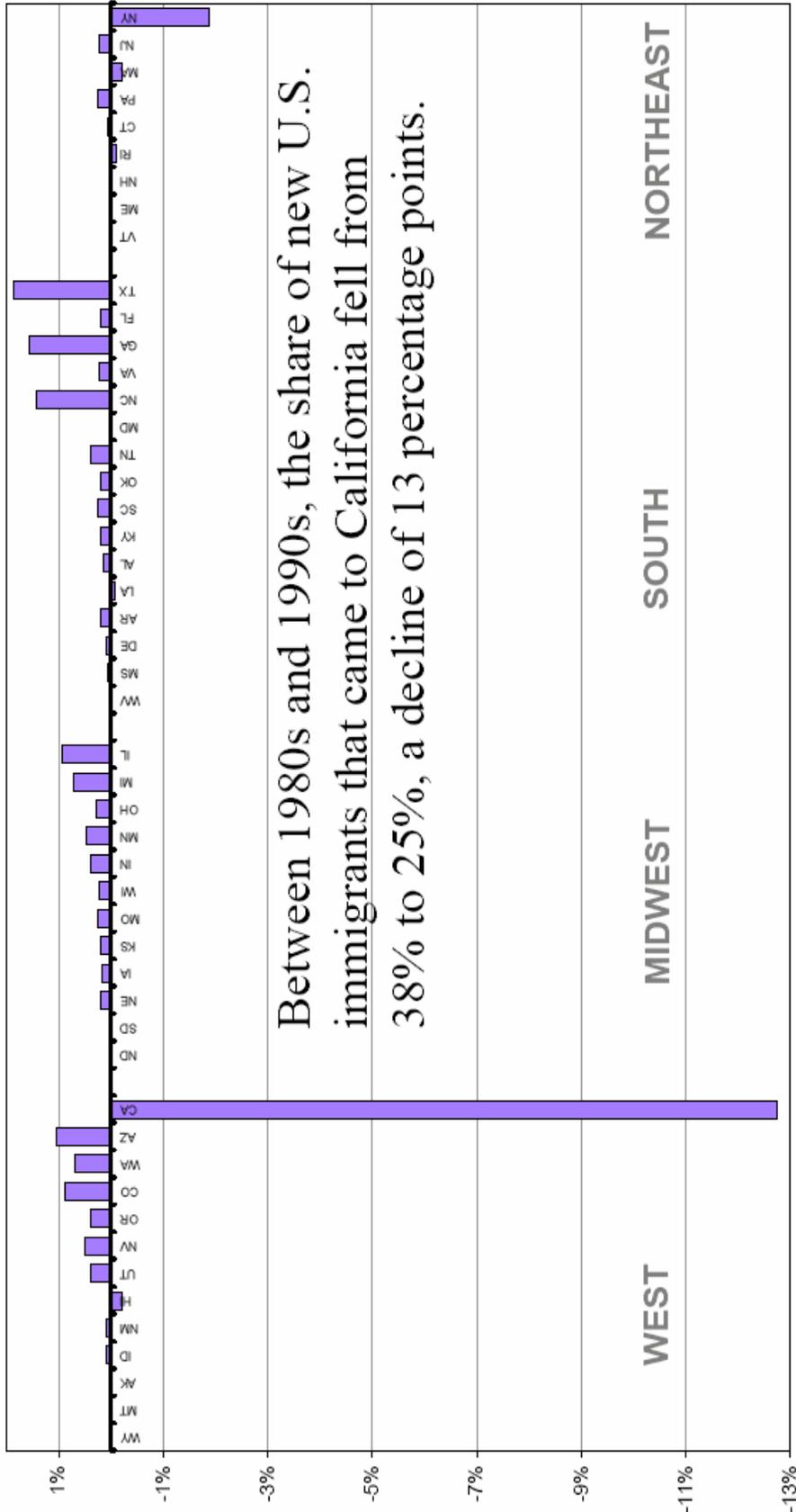
California's Immigrants Turn the Corner

A February 2004 research brief of the above title highlighted how immigrant newcomers had diverted from California to other destinations across the country.⁷ California had once attracted an increasing share of the newcomers from census to census, rising from 23.3% in 1970 to 37.6% in 1990. Since California accounted for only 12.0% of the nation's total population in 1990, this new immigrant attraction rate amounted to more than a triple-share of the new arrivals. However, by 2000, only 24.8% of the nation's new arrivals came to California (see Exhibit 13), a loss of share of nearly 13 percentage points. New immigrants were spreading out across America. Exhibit 14 shows the growth of attraction rates in 34 different states between 1990 and 2000 and California's loss in attraction was six times greater than the only other state with a noticeable decline—New York at -1.9. Conversely, no state sustained an increased attraction rate that absorbed even one-sixth of California's decline, the largest gains being found in Texas (1.9), Georgia (1.6), and North Carolina (1.4).

**Exhibit 13:
New Immigrant Arrival Attraction Rates for 50 States, 1990s**



**Exhibit 14:
Change of New Immigrant Arrival Attraction Rates for States, 1990s vs. 1980s**



Between 1980s and 1990s, the share of new U.S. immigrants that came to California fell from 38% to 25%, a decline of 13 percentage points.

NORTHEAST

SOUTH

MIDWEST

WEST

That same research brief also spotlighted the consequent decline in newcomers as a share of the total California population and the implications of the shift toward more settled residents. In sum, the longer settled immigrants had lower poverty (as shown above) and higher homeownership, among other things.

Accuracy of the Year of Arrival Data

New immigrants to the U.S. are surely among the most difficult subjects to accurately count and from whom to collect data. They are highly mobile and transient in their initial years in the U.S., and in many cases undocumented in their residency. In addition, the complexities of migration behavior—particularly emigration and circularity—raise doubt about the meaning of year of “arrival” or “come to stay” in the U.S. This has caused some to question the accuracy of census data pertaining to immigrant year of arrival.

A working paper by Dowell Myers closely examined the reasons for doubting the data reliability and assessed evidence on the subject.⁸ The Census Bureau’s own evaluations find that the year of arrival question is relatively more reliable than other important questions. Following each decennial census, the Census Bureau conducts an evaluation of data quality. A principal component of this evaluation is a reinterview of a sample of respondents. Relative stability of responses—i.e., low levels of inconsistency between the census and reinterview responses—are interpreted as evidence that the questions provide a reliable measure of the intended concept.

The evaluation of Census 2000 found a “low” degree of inconsistency for questions related to place of birth, citizenship and year of entry. Out of 58 items tested, 16 earned the favorable, “low” rating. Other successful items were age, sex, marital status, and veteran status. Other variables that are staples of socioeconomic analysis (such as income or educational attainment) were found to be less reliable than the year of arrival variable.

As a further test, a series of arrival cohorts were traced across three successive censuses to evaluate their stability over time. On the whole, these data indicate that the arrival cohorts formed from the census year of arrival question are more consistent over time than might be feared. Given the complexities of migration behavior and concerns about respondent accuracy, the evidence summarized here is reassuring.

Three Waves of Population Change

In a 2004 working paper, John Pitkin used decennial census and other data to measure the scale and timing of the waves of immigration, births, and domestic out-migration that affected the six-county Los Angeles region between 1970 and 2000.⁹ Comprising nearly half the total California population, demographic trends in this

region also closely parallel those in the whole of the state. Pitkin examined the relationships between these demographic waves and described their cumulative impacts on the size and composition of the region's population through 2000. The peak years for immigration were 1988 to 1990 and for births, 1991 and 1992. Between 1990 and 2000 the region lost 2.05 million migrants, or 13% of its population, net of in-migration, to the rest of the U.S., substantially more than indicated by earlier estimates that were based on less complete data.

As a result, the demography of the region has been transformed. It can no longer be understood as a microcosm of the nation, as it could as recently as 1980. In the Los Angeles region, the baby boom generation is no longer the largest, as it had recently been in Los Angeles and still is in the rest of the U.S.; two later cohorts now outnumber baby boomers, immigrants who arrived in the U.S. between 1980 and 2000 and children born in the region in just the 15 years from 1986 to 2000. As a result, models of a "typical" metropolitan area no longer apply, because those traditional models do not represent the distinctive behaviors and impacts of large cohorts of foreign-born adults and their mostly native-born children.

Over the three decades covered in the study, domestic migration was much more variable than either immigration or fertility, fluctuating from a small amount of in-migration in the early 1980s to massive out-migration ten years later, and the linkages with immigration from abroad are much looser than those between immigration and the number of births. The emergence of substantial domestic out-migration of the foreign-born population was undoubtedly spurred by temporary economic conditions (the 1991-1994 regional recession), but its continuation in the latter half of the 1990s apparently resulted from a decline in economic opportunities for immigrants in Los Angeles relative to other regions of the U.S. This decline and the out-migration of the foreign-born population seem likely to continue in the future.

Importance of Second Generation Relative to Immigrant Residents

The relative importance of the second generation was assessed in a paper presented at the 2004 annual meetings of the American Sociological Association. The foreign-born population has resurged to numerical prominence in the U.S. and, for the first time since 1870, the first generation has even grown to outweigh the second generation.¹⁰ From a high point of 34.8% in 1910, the foreign stock (immigrants and their children combined) steadily declined as a percentage of the growing United States population, reaching a low of 17.6% in 1970. Although the proportion second generation continued to decline to 2000, the rapid increases in new immigrant arrivals have steadily lifted the proportion foreign born and, with it, the entire foreign stock.

Contrary to assumptions of some sociologists, increases in the second generation are proceeding only very slowly because they occur on a generational time scale. There is a necessary lag after the initial increase in new immigrant arrivals. As shown in this report, the leading edge of growth in the second generation is currently only about 20 years of age. However, the size of the second generation now being produced by

immigrant women is not as large as some have assumed. Immigrants arriving after age 30 may already have completed their family formation, and their children would all be first generation immigrants themselves, described as the 1.5 generation. In addition, expectations of rapid growth in the numbers of second generation children—based on the experience in the 20th century following the immigration boom in the early decades of the century—are being confounded. In reality, fertility levels of immigrant women are roughly half as great in 2000 as they were in 1910, suggesting that the new second generation produced by recent immigrants will be relatively much smaller than that produced by the earlier generation of immigrants.¹¹

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Methods, Data, and Projection Assumptions

Method

The population of California is modeled and projected using a *cohort-component method*.

Population changes over time through different kinds of demographic events that collectively constitute the components of population change. Between any two dates, the total change in population can be decomposed into the number of *births*, “fertility,” the number of *deaths*, “mortality,” and the numbers of *immigrants* and *emigrants*. It is useful to distinguish between in-migrants from outside the U.S., “immigrants,” and migrants from within the U.S., “domestic in-migrants,” also described collectively as “immigration” and “domestic in-migration,” respectively, the corresponding out-flows of migrants being “emigration” and “domestic out-migration.”

A generally used method of modeling population change, one used e.g. by the U.S. Bureau of the Census¹² and State of California Department of Finance (DoF)¹³, breaks these components down further for *birth cohorts*, those people born in the same period of time and who are the same age, because per capita rates of demographic events vary so greatly over the human life cycle. Fertility, for example, is nil for young children. There are also large differences across age groups in per capita rates of mortality and migration. By tracking the population of different birth cohorts as they age over time, the cohort-component method can therefore much more accurately model variations over time in the total numbers of births, deaths, and migrants.

Fertility differs totally between women and men and significantly between women of different races and origins. There are also considerable differences in death rates both between the sexes and among races. In order to measure the impacts of these differences as the composition of the population shifts over time the generally used cohort component model therefore also splits the population by sex, race, and, often, origin, thereby identifying the population in each of a thousand or more unique cohorts defined by birth cohort (or age), sex, and race or ethnicity in each year (e.g. 100 ages.times 2 sexes times 5 or more race-ethnic groups).

Model Structure

Nativity

The cohort method we use to model the population of California extends the generally used method to identify the population further by nativity, i.e., whether native- or foreign-born; for the foreign-born, by year of arrival in the U.S.; and, for the native-born, by nativity of mother, the “second” and “third” generations. We do this for a combination of reasons.

First, there is a growing body of research finding differences in demographic rates among nativities and arrival cohorts. Substantial differences in fertility between native-born and foreign-born women in California are reported by Johnson, Hill, and Heim.¹⁴ Using vital statistics data (birth records) for 2001 and 2002 for California, we find that average lifetime fertility (the “total fertility rate”) for foreign-born Latinas was 1.46 children per woman (72%) above the average for native-born Latinas, and for foreign-born white women was .61 children (40%) higher than the average for native-born white women.¹⁵ Research comparing mortality rates finds rates that are more often than not lower for foreign-born than native-born populations of the same ethnicity.¹⁶ Ahmed and Robinson (1994)¹⁷ estimate large variation in rates of 1980 to 1990 emigration from the U.S. by the foreign born, 19 percent of the immigrants who had been in the U.S. less than ten years (at the start of the decade) compared with 9 percent of those who had been in the U.S. ten to 19 years. Although there are no reliable data on emigration of the native-born population, the rates can be inferred to be much lower than these rates.¹⁸

Second, there are substantial differences by nativity, duration of U.S. residence, and immigrant generation in many other dimensions of social, economic, and political status and behavior. See for example Duleep and Regets (1997) on changes in earnings associated with increasing time since migration, Wong (2004) on differences in political participation, Myers and Lee (1998) on homeownership, and Myers and Cranford (1998) on occupational mobility.¹⁹

Third, much information on nativity and duration of residence in the U.S. is implicitly modeled but not retained or reported in the generally used cohort component method. Such information can therefore be made explicit and available to data users simply by being separately tallied and reported. It is, in a very real sense, a by-product of the generally used cohort component method and can be utilized if the framework of the model is extended to capture it. In fact, the U.S. Census Bureau did this when it issued its first national population projections by nativity, though not by immigrant generation or year of arrival, and Passell and Edmonston (1994) developed projections of the U.S. population by nativity, immigrant generation, and origin.²⁰

Previous Studies

In light of the benefits and apparent feasibility of making population projections that include the immigrant dimension in addition to the usual age, sex, and race, one might ask why the most recent official and other projections, including those of the

U.S. Census Bureau and the State of California DoF cohort-component method has not been extended to do this. One barrier is the resources required to modify methods that have been developed in the past and used for years if not decades. Adding three immigrant generations (foreign, second-generation native, and third-generation native) to a typical single-year of age, two-sex model with five race-origin groups triples the number of population groups to be tracked and accounted for from one to three thousand, and adding immigrant year of arrival further multiplies the number of categories. This is a more complex model. It also raises new issues of data quality and measurement of the immigration dimensions of the population. The decennial census records nativity, native- and foreign-born, and immigrant year of arrival, but does not separately identify the second-generation; for this the modeler must rely on much less detailed data from the Census Bureau's monthly population survey. Official agencies such as the California Department of Finance may also be constrained by limitations of the data for smaller geographical areas for which they must also make projections, not to mention the need to devote resources to other priorities, which recently included expanding the number of categories used to report race. Finally, continuing public controversies over immigration and policies affecting immigrants may also have been a deterrent to more explicit treatment of the immigrant dimension in official projections.

The specific methods used here have been in large part developed and benefit from those used in previous population models by the authors, notably projections of the U.S. foreign-born population and California population by nativity, both based on 1990 Census data.²¹ In principle, the methods used here are the same as these earlier models. The most important differences from the earlier models are the integration of the results of the 2000 Census, which greatly increases the depth and richness of the historical base for projections, and addition of the category of "second generation" children of the foreign-born. However, there are many changes in the present model, and these are reflected in the following description of the model's structure and assumptions.

Temporal and Spatial Structure of Model

The model starts from April 1, 2000, the date of the 2000 Census of Population and models the population on January 1 of subsequent years through 2030, in one nine-month increment, to January 1st of 2001, and one-year intervals thereafter. Through January 1st of 2004, it does this in *simulation mode*, in which the components of change are controlled to the latest vital statistics data (on births and deaths) and State of California DoF estimates (net immigration and domestic migration).²² For subsequent years, the model operates in *projection mode* with components of change determined by the assumptions described below.

In addition to California, the model identifies the populations of two other regions, (1) the rest of the United States, with which California exchanges domestic migrants, and (2) the rest of the world, the source of immigrants and destination of emigrants. The population of the rest of the United States region is modeled in order to estimate the number of *potential* domestic migrants to California in each period. Immigrants

are identified by six broad regions of origin chosen to correspond as closely as possible to race categories and at the same time facilitate comparison with statistics on immigration from the Office of Immigration Statistics (formerly the Immigration and Naturalization Service).²³

Population Characteristics

The model identifies five mutually exclusive *race and origin* groups: 1) Hispanics and non-Hispanic 2) Whites, 3) Blacks, 4) American Indians, and 5) Asian and Pacific Islanders. (For the sake of brevity in this discussion the qualifier “non-Hispanic” is implied even when it is not explicitly stated.) These categories are combinations of those identified in the federal Office of Management and Budget standards of 1977 and are the same as the race-origin categories used in the California Department of Finance’s population projections and estimates prior to 2001.²⁴

The current federal standard identifies 31 race categories in addition to Hispanic and non-Hispanic origin, the new (2004) DoF projections identify seven (Pacific Islander and Asian are now separately identified as well as a single non-Hispanic “multi-race” category) and the latest Census Bureau (2004) national projections five different categories ((1) non-Hispanic White alone, (2) Hispanic White alone, (3) Black alone, (4) Asian alone, and (5) all other groups).²⁵

For purposes of projections, trends in demographic rates must be grounded in consistent historical trends that can be meaningfully extrapolated from the present into the future. There are too few observations of past births and deaths according to the new race categories identified by OMB to provide a sound basis for projections. There even remain questions about the consistency of the earlier data with the self-reported race data in the Census that have still not been resolved. Moreover many of the categories have populations that are too small to be reliably modeled and hence must be aggregated (as with the DoF projections). The need for 2000 population data on race that are comparable with earlier data is well recognized and has been filled by the National Center for Health Statistics “bridged” race estimates that translate the 2000 Census SF 1 detailed age-sex-race-origin data to the old race standards using a probabilistic assignment method.²⁶ These NCHS estimates for California are used as the base population for the model.²⁷

Race and origin for the population born after 4/1/2000 is determined by the mother’s race and origin. This differs slightly from the population born pre-Census 2000, whose race is based on the race reported for each person, which may of course also be based in whole or part on the race of the father.²⁸

The resulting projections should therefore not be treated as a measure of future racial *self identification*. That identification is fluid and is will surely change due to patterns of intermarriage and evolving societal norms. Instead, the projections are an ascription of racial *heritage*. They track the long-term evolution of major racial groups based on the simplified set of groupings we define in 2005.

The model splits the population into three “*immigrant generations*,” the foreign-born, the “first generation” or “immigrants; the children of native-born mothers, the “second generation;” and children of native-born mothers, the “third generation.” Substantial ambiguity characterizes definition of the second generation, whether these are the children of two immigrant parents, of one immigrant and one native-born parent, or of an immigrant mother. We opt for the latter definition, primarily because there is much more complete and, presumably, accurate data on the nativity of mothers in birth records than on the nativity of fathers. Supporting this definition, we also note research showing that the mother’s nativity has greater impact on the child’s outcomes than does the father’s status.²⁹ According to the 2004 Current Population Survey, fewer adults age 18 or older are classified as second generation under the strict two-parent rule (14.6%) than under the looser, one-parent definition (20.8%). The mother-based definition yields an intermediate prevalence of second generation status (17.6%), and we apply that definition consistently over time in our model.

Immigrants’ *period of arrival* in the U.S. is identified by single years starting in 1980; those who arrived earlier are combined into a single category. For the population born before 4/1/2000, year of arrival is derived from the 2000 Census question “When did this person come to live in the United States?” For those born after that date, it is tallied by the modeled inflows of immigrants from abroad. The census data on immigrant arrivals provide a more inclusive count than arrivals recorded by the Office of Immigration Statistics. The latter source only includes legally admitted residents, omitting the unauthorized arrivals and also omitting temporary residents whose visa status is for purposes of education, temporary employment, or the like. However, those who have established a place of residence in the United States are members of the resident population and must be modeled. Although the census year of arrival data are not as accurate as birth year or sex, evaluation conducted by the Census Bureau finds that they are among the more reliable data collected through census questions, exceeding the accuracy of most socioeconomic factors.³⁰

There are 99 single-year and one open-ended *age* categories (under 1, 1, 2, ..., 97, 98, and 99 years or more) and two *sex* categories in the model.

Data Sources

April 2000 Base Population

The April 1, 2000 populations, by age, sex, race, and origin are from Census 2000 SF 1, with races modified to pre-2000 categories by NCHS.³¹

The distribution of the populations into nativity (foreign and native-born) and pre-2000 year of arrival of the foreign-born is from tabulations of the Census 2000 Public Use Microdata 5 % Sample (PUMS) file.

The distribution of the native-born populations into second and third-generations is from two sources. For the population under age 15, it is from the Census 2000 PUMS, and is based on the nativity of mothers who live in the same household.³² For the population age 15 and older, it is based on generation distributions tabulated from the combined average of the 2000-2002 Current Population Survey monthly data.

Components of Change 2000-2003: California

Births 2000-2002: By age, race, origin, and nativity of mother, U.S. Department of Health and Human Services Natality Detail files (various years)
2003: Total, U.S. Department of Health and Human Services³³

Deaths 2000: By age and sex, U.S. Department of Health and Human Services Multiple Cause of Death public use file³⁴
2001-2002: By age and sex, U.S. Department of Health and Human Services (2004)
2003: Total, U.S. Department of Health and Human Services (2004a).³⁵

Net Immigration
2000-2002: Total, averages of successive July 1 to July 1 estimates of State of California DoF
2003: Total, estimated from California DoF.³⁶

Net Domestic Migration
2000-2002: Total, averages of successive July 1 to July 1 estimates of State of California DoF
2003: Total, estimated from State of California DoF.³⁷

Projection Assumptions

Births

Births are projected based on the modeled population of women of child-bearing ages and age, race, and nativity-specific fertility rates. These rates are calibrated to 2001-2002 vital statistics births and modeled populations of women and trended forward in proportion to age and race-specific fertility rate trends in the U.S. Bureau of the Census middle series projection of fertility.³⁸ The resulting projected average lifetime live births per woman (total fertility rates) for 2005 and 2020 are shown in Table *Methods 1*.

See Pitkin (2004) for a discussion of past variations, between 1970 and 2000, in fertility, immigration, and domestic migration, by nativity, in a six-county region of Southern California.³⁹

Deaths

Deaths are projected from the modeled population of all ages and age, sex, and race-specific mortality rates. These rates are calibrated to 2001-2002 vital statistics deaths and modeled populations and trended forward in proportion to age, sex, and race-specific mortality rate trends in the U.S. Bureau of the Census middle series projection of mortality.⁴⁰

Immigration

The model’s assumption holds immigration to the U.S. constant at the average level estimated by the U.S. Census Bureau for 2000-2003 and California’s share of U.S. immigration at the level observed in 1997-2000, the latest for which detailed data on the composition of immigration, by country of origin, race, and ethnicity, is available.⁴¹ Our past research has shown that California’s share of total U.S. immigrants fell from a peak of 36% in the 1980s to 24% in the 1990s.⁴² The fall-off was likely triggered by the deep recession in the state early in the 1990s, but the available data suggest only a weak resumption of California’s attraction share even after the state’s economy revived. (See Exhibit 15 for Census 2000-based historical data on annual immigration to California.) In brief, we believe that would-be immigrant residents have now discovered more attractive locales across the nation, due to lower housing prices and lower competition from other immigrants. Thus California’s current relative attraction of new immigrants will not return to pre-1990 levels and that current trends are likely to persist. Gross immigration to California implied by this assumption is 341 thousand per year.

Exhibit 15
Total Projected Fertility by Race, Ethnicity, and Nativity, California, 2005 and 2020
(Average Lifetime Live Births per Woman)

	Hispanic	Non-Hispanic			
		<i>White</i>	<i>Black</i>	<i>American Indian</i>	<i>Asian or Pacific Islander</i>
2005 Native-born	2.01	1.55	1.84	1.81	2.00
2005 Foreign-born	3.46	2.17	2.07	2.43	1.97
2020 Native-born	1.91	1.64	1.87	1.74	1.97
2020 Foreign-born	3.29	2.31	2.09	2.34	1.94

Net international migration of the native-born population includes (1) projections of the Census Bureau, including Armed Forces, (2) 20 thousand per year net from Puerto Rico, and (3) emigration of new born (under 1 year old) children of foreign-born women.⁴³

Emigration

Foreign-born emigration, is projected at constant population-based rates by age, sex, country of origin, and years since immigration (arrival in the U.S.), derived from rates estimated for 1980-1990 by Ahmed and Robinson.⁴⁴

Taken together, the projected levels of immigration and emigration imply net immigration to California of 254 thousand persons in 2005 and 242 thousand in 2020.

Domestic Migration

Population-based rates of migration from California to the rest of the U.S. and the reverse, by age, race, and nativity, are calibrated to and projected fixed at 1995-2000 rates, estimated from the Census 2000 question on place of residence in 1995. These rates imply net domestic migration that is near the long-term (1970-2000) average, which includes very high out-migration in the first half of the decade of the 1990s. Projected net domestic migration to California is -105 thousand in 2005 and -93 thousand in 2020.

The resulting components of population change for California for 2005 and 2020 are summarized in Exhibit 16.

Exhibit 16
Estimated and Projected Annual
Components of Change in California Population

	2002	2005	2020
Births			
Native-born mother	283,268	312,700	405,696
Foreign-born mother	246,089	245,694	247,771
Total	529,357	558,394	653,467
Deaths			
Native-born	185,616	195,574	213,185
Foreign-born	47,560	54,046	88,146
Total	233,176	249,620	301,331
International migration			
Immigration	312,626	341,456	341,456
Foreign-born emigration	60,416	62,625	74,105
Net immigration (emigration) of native-born	(25,286)	(25,203)	(25,234)
Net	226,924	253,628	242,117
Domestic migration			
In			
Native-born population	390,069	330,672	374,680
Foreign-born population	86,570	79,303	102,535
Total	476,639	409,975	477,215
Out			
Native-born population	320,768	409,790	449,303
Foreign-born population	82,260	105,624	121,185
Total	403,028	515,414	570,488
Net			
Native-born population	69,301	(79,118)	(74,623)
Foreign-born population	4,310	(26,321)	(18,650)
Total	73,611	(105,439)	(93,273)
Total change	596,716	456,963	500,980
Projected (estimated) population 1/1	34,996,578	36,689,592	44,352,433

Implications of the California Demographic Futures Projections

The result of the evolving transformation of the foreign-born population is that the immigrant stock (parents and children) of the future will be much more deeply settled and, as a result, more accomplished and civically integrated than witnessed in the recent past. This conclusion is buttressed through an examination of four indicators of social and economic status, educational attainment, access to health insurance, voting participation, and English language adoption. Elsewhere we have addressed additional achievement outcomes such as poverty and homeownership, and the results are similar.⁴⁵

Failure to distinguish the effects of generation and length of residence creates a substantial risk of error in analysis and policy making. In the summaries that follow we identify erroneous inferences and overly pessimistic conclusions that might be drawn without the more detailed population projections. The brief sketches that follow are sufficient to make these points, although more comprehensive studies could address more age groups, all ethnicities, and both genders.

The Latino population has been growing rapidly, and its average socioeconomic status has been fairly low. Accordingly, we test the impact of deepening immigrant settlement with regard to the changes in the Latino population, focusing especially on ages 25 to 34. This age group of young adults has pivotal importance because they are newly filling the labor force, entering their productive economic years, and establishing their own families. The group is also significant because it represents the recent product of the state's educational system. Although many have immigrated as adults, increasingly these young Latino adults will be home grown.

The relevant data are summarized in two exhibits. Exhibit 9 shows the compositional change in this population group between 1980 and 2030. Exhibit 10 then shows the socioeconomic indicators that prevail at each stage of settlement, from recent immigrant to second or third generation. In each case, the indicators for the second generation far surpass the level observed for recent immigrants and are substantially above even the levels for the longest settled immigrants, who came to the U.S. as young children.

The brief examinations that follow of policy outcome areas are mere sketches of much more detailed investigations now underway. All age groups and ethnic groups deserve to be included, and a full-blown cohort analysis of behavioral trajectories is required.⁴⁶ Nonetheless, these sketches are illustrative of the implications derived from the new projections of California Demographic Futures.

Educational Attainment and Growing Demand for Higher Education

It is well-known that the Latino population has below average years of education. Some of that low attainment is due to the lower opportunities that were available to Latinos growing up in California, particularly in the older generation. Even among young adults ages 25 to 34 the average rate of high school completion is only 55.4%.⁴⁷

What is not recognized is how much of that low attainment is generated by the preponderance of new immigrants in the Latino population. At present, only 37.1% of recent immigrants are likely to be high school graduates, but this share rises to 61.6% of those who have resided 20 or more years in this country, and to 83.5% among the second generation (Exhibit 10). By 2030, a much greater portion of young-adult Latinos will be long settled or second generation, and, all other things equal, the overall share who are high school graduates would be expected to rise substantially above the current level.

A number of erroneous conclusions are reached if one relies only on educational data for all Latinos lumped together. For example, the low high school completion rates only partly reflect the failings of California schools.⁴⁸ As researchers at the Rand Corporation have emphasized, many Latinos immigrated after the age at which they would have entered U.S. high schools, and so they cannot be said to be drop outs here.⁴⁹

A second erroneous conclusion is that low attainment levels are evidence of low interest in education or a low propensity to do well in school. In fact, the evidence of sharp increases in educational achievement among those with deeper roots in California indicates a readiness for educational upward mobility. This readiness lays the basis for even stronger gains if stimulated by proactive educational policies.

Planning for higher education facilities in the state is impacted by yet another erroneous inference. It is incorrect to assume that the current average achievement levels by Latino youth and young adults are a good predictor of future achievement and demand for higher education. That error leads to systematic underestimation of the number of Latino high school graduates. A major consequence is that this under prediction can lead to an *undersizing* of the opportunities for higher education. In particular, the community college system has been a particular gateway of opportunity for youth from immigrant families. Any reduction in capacity or quality in the community colleges will only block the achievement potential among

Latinos.⁵⁰ Given the importance of this group to our future work force, as revealed by our projections, public policy should strive to enhance, not stunt, the potential of young Latinos for higher education.

Health Insurance Access and Public Costs of Medical Care

The health care industry is in rapid transition, and the current structure of health insurance coverage will surely change markedly in coming decades. Nonetheless, it is instructive to see how much health care access would shift in light of the changing population characteristics we project. Without health insurance, residents place disproportionate reliance on emergency rooms for basic medical services, creating a fiscal strain on county budgets. The past surge in new immigrants has had a disproportionate effect on some counties, Los Angeles among them.

At present, only 31.4% of recent immigrants are reported to have health insurance, but this share rises to 64.9% of those who have resided 20 or more years in this country, and to 72.2% among the second generation (Exhibit 10).⁵¹ By 2030, a much greater portion of young-adult Latinos will be long settled or second generation, and, all other things equal, the overall share with health insurance would be expected to rise substantially above the current level. This anticipated shift would progressively lower the population share who are uninsured and gradually lighten burdens on publicly funded health services.

One error that might follow from the absence of detailed forecast data would be to assume that Latinos in the future would be skewed toward the status of new immigrants and that they would be just as dependent as in the past. Given the growing numbers of Latinos, this would lead to a very discouraging outlook and the despondence could even undermine the public will to address health problems. The opposite error would be to assume that health insurance will automatically materialize for all the state's residents and that the problems of underinsurance will wither away. Sadly, such is not the case. Nonetheless, we believe our projections create some hope that health care problems are more manageable than implied by simple extrapolations of past trends.

Voter Participation and the Representation Gap

The foundation of our democracy is self determination, most tangibly expressed through the voting process. Children under age 18 are not eligible to vote, and we assume their parents will represent their interests. However, a representation gap has formed in California because immigrant parents who are not yet citizens cannot represent their native-born children. Moreover, the large and growing Latino population is generally underrepresented. Analysis of the 2004 presidential election has shown that Latinos account for 31% of the state's population, 23% of adult citizens eligible to vote, and only 18% of voters in the election.⁵² In the interest of an

effective democracy it is desirable to have participation that is more equal to population.

As a benchmark, in the nation as a whole, only 54.7% of adults are voter participants in a non-presidential year.⁵³ This number results not only from incomplete turnout of registered voters, but also from incomplete registration of those who are eligible to vote, as well as from the rising number of immigrants who have not naturalized to U.S. citizenship. Thus, overall voter participation is the net result of compound behaviors. Nonetheless, the 54.7% participation rate could be a useful benchmark.

Among our focus group of California Latinos age 25 to 34, when we average data from surveys pertaining to presidential and non-presidential fall elections, only 0.8% of recent immigrants are likely to have voted, yet this share rises to 14.5% of those who have resided 20 or more years in this country, and to 39.8% among the second generation (Exhibit 10).⁵⁴ By 2030, a much greater portion of young-adult Latinos will be long settled or second generation, and, all other things equal, the overall share who are active voters would be expected to be substantially above the current level.

This anticipated upward shift in per capita voting participation indicates that the influence of the Latino population will progressively increase in the political process in California. Nonetheless, the current voting rates of second generation Latinos in California remain below the benchmark average for the nation, and so further education and efforts to foster political participation are needed to help bring greater equity in participation.

English Reliance and Huntington's Claims

A core concern of some observers, most recently the eminent Harvard scholar Samuel Huntington, is that Latinos are immigrating more rapidly than they can be assimilated, resulting in a cultural bifurcation in America.⁵⁵ The key indicator Huntington uses is Latino immigrants' reliance on the Spanish language instead of English. In fact, many Latinos speak both English and Spanish,⁵⁶ but Huntington's concern is that any widespread use of Spanish is socially and politically divisive.

Our purpose here is not to critique Huntington's normative presumptions; rather, we aim merely to test his assessment of the likely trends against the evidence revealed through our projections. Should Huntington's claims fail this specific empirical test, that could call into question his normative interpretation as well.

For our purposes, we use a measure of English dominance, based on language spoken at home and preferred language used in a public context.⁵⁷ Huntington implies in his argument that Latinos will retain the same reliance on Spanish in the future as the past, even though the earlier population had a disproportionate number of new immigrants who were naturally Spanish dominant. Coupled with a growing Latino majority in the population, Huntington derives a future scenario where English use

fades and rising Spanish use divides the nation, beginning with California and the southwest. The faulty premise is that immigrants remain frozen in time. Instead, they gradually grow older, children become adults, they have children of their own, and the cultural practices of new immigrants are transformed by longer residence in the U.S.

Our data shed substantial light on Huntington's supposition. Here we focus again on Latinos ages 25 to 34, projected to become 51% of their age group by 2030 according to the California Department of Finance (2004). Latinos are not expected to reach a majority of the total population of California until 2040, and so if there is to be evidence of growing Spanish reliance and social division, it should show up among these young California Latinos first.

The California Demographic Futures projection is for a rising share of Latinos to become longer settled or second generation, not to remain as new immigrants. Data on language use indicate that about 2% of recent Latino immigrants are likely to be English reliant, while this share is estimated to rise to 10% of those who have resided 20 or more years in this country, and to 47% among the second generation and 78% in the third (Exhibit 10).⁵⁸

Our data suggest that English reliance was much more prevalent among Latinos back in 1980 (36.2%) than in 2005 (28.2%), due to the greater numbers who were third generation in 1980. By 2005, the numbers of new immigrants had surged and the proportion third generation had declined as a result (see Exhibit 9). Thus, the average prevalence of English reliance declined. However, projecting forward to 2030, based on the longer average U.S. residence length of immigrant Latinos and the growing second generation, the expected overall share that are English dominant rebounds upward to 38.4%, a level even higher than in 1980.

The conclusion reached is that Huntington's concerns are unwarranted on behavioral grounds, let alone as a normative evaluation. He has extrapolated past trends in a naïve fashion, in part because he lacks forecast data that break Latinos into generations and various lengths of residence. We find that Huntington's concerns pertain to only a transitional period in American history. And do not represent California's future.

New Understandings from the New Data

The above examples are but a few indicators of the changes that are implied by the long-term trends spotlighted by the California Demographic Futures projections. In point of fact, we would be hard pressed to identify a policy arena in which the immigrant make-up of California is not making an impact (and much more thorough analyses deserve to be conducted in all areas than the brief sketches presented above).

In general, measurements of long-term trends enable us to foresee the likely consequences of our actions today. Looking backward 25 years and then forward 25 years, we develop new understandings useful for a wide array of policy making. A few general observations follow.

D1. Immigrants are not Peter Pan.

Immigrants are not frozen in time. For lack of data that traces immigrant cohorts across the decades, many have come to think of them as unchanging. Each decade's wave of newcomers piles on top of the predecessors; no one grows older; and no one assimilates. But immigrants are not Peter Pan; they do evolve; and *their evolution will make as great a contribution to the transformation of the California population as their arrival.*

D2. Past trends should not be extrapolated.

Simple extrapolation of the experience of the 1970s, 80s, and 90s would lead us to expect continued acceleration of immigration, mounting proportions of newcomers, and a continuation of trends in social and economic characteristics that are dominated by newcomers. Instead, many of these trends have abated or even reversed, and the previous newcomers are now taking on the different characteristics of longer settled immigrants.

D3. We must act now to nurture the children of immigrants on whom we will depend.

The majority of our growing work force is going to come from the new second generation. With the Baby Boomers retiring in the next decade, we need skilled replacements. California can't run without more teachers, business leaders, police officers, retail store managers, and all the rest. Hopefully the children of immigrants also will be well prepared for their adult roles as tax payers, customers for California businesses, and buyers of homes that others hope to sell. It is never too soon to start preparing children for more productive futures.

D4. A longer view allows for better planning

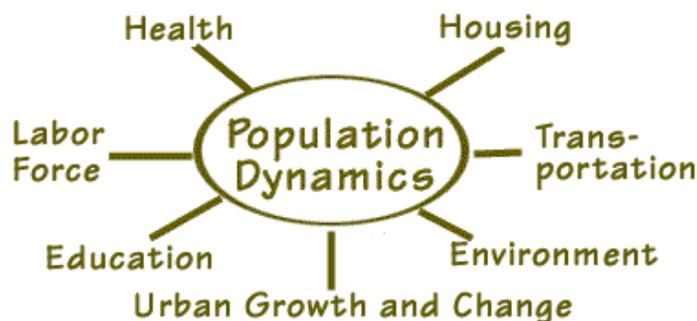
We can plan more effectively for California's future if we better understand the demographic transition that we are in the midst of. Indeed, responsible leadership always exhibits prudent foresight.

The Continuing Development of the Project

California Demographic Futures represents a program of continuing research endeavors. Our premise is that population transformation, growth, and change underlies all facets of social, economic, and political life in California.

We are continuing to develop the population projections described in this report. Our plan is to make these projections available for more localized geography in California. Following the “step-down” strategy of population forecasting, smaller areas are nested within the overall forecast for the state but the broader area forecast must be established first. In the coming year we hope to begin making available forecasts for major regions within the state. A further frontier of development is to specify additional population groups within the projection series, as called for by the user community.

The population projections are designed for application to a host of policy areas. In partnership with other researchers at USC and across the state, investigators with the Population Dynamics Research Group are exploring applications to education, workforce, health, housing, and other areas of keen policy interest. In the next year we also hope to be able to offer workshops on how the data may be best applied by others.



For the latest information on the project status, please visit the web site for the USC Population Dynamics Research Group:

www.usc.edu/schools/sppd/research/popdynamics

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Endnotes

¹ The total fertility of foreign-born women in the 1910 census was 4.4 children, while completed fertility in the 1998 Current Population Survey was 2.2 children. Morgan, S. Philip, Susan Cotts Watkins, and Douglas Ewbank. 1994. "Generating Americans: Ethnic Differences in Fertility." In Susan Cotts Watkins (ed.) *After Ellis Island: Newcomers and Natives in the 1910 Census*. New York: Russell Sage Foundation.; Bachu, Amara and Martin O'Connell. 2000. "Fertility of American Women: June 1998." *Current Population Reports*, p205-26. Washington, DC: U.S. Census Bureau.

² An early version of the model was based on 1990 census data and covered only the U.S. as a whole (Pitkin, John and Patrick Simmons. 1996. "The Foreign-Born Population to 2010: A Prospective Analysis by Country of Birth, Age, and Duration of U.S. Residence." *Journal of Housing Research* 7:1.). The second model generation projected California as a separate region interacting with the rest of the U.S. (Pitkin, John. 2001. "Projecting the Population of California by Nativity and Period of Arrival to 2020." A California Demographic Futures Working Paper. Los Angeles, CA: University of Southern California). The current, third generation of the model generation draws on tests of the earlier projections against 2000 census data, incorporates those 2000 data and other current vital statistics, adds estimation of the second generation component within the native born, and makes other structural improvements.

³ Myers, Dowell. 2004. *Cohorts and Socioeconomic Progress*. The American People series, Population Reference Bureau and Russell Sage Foundation; Pitkin, John, Dowell Myers, Patrick Simmons, and Isaac F. Megbolugbe. 1997. *Immigration and Housing in the United States: Trends and Prospects*. Washington, DC: Fannie Mae Foundation.; Myers, Dowell and Seong Woo Lee, "Immigrant Trajectories into Homeownership: A Temporal Analysis of Residential Assimilation." *International Migration Review* 32 (Fall 1998): 593-625.; Myers, Dowell and Cynthia Cranford, "Temporal Differentiation in the Occupational Mobility of Immigrant and Native-Born Latino Workers." *American Sociological Review* 63 (February 1998): 68-93.; Myers, Dowell. 1998. "The Economic Adaptation of Mexican-Origin Men." With Commentary by Nathan Glazer, Pp.159-203 in Marcelo M. Suarez-Orozco, ed., *Crossings: Mexican Immigration in Interdisciplinary Perspectives*. Cambridge, MA: Harvard University Press; Myers, Dowell. 1999. "Upward Mobility in Space and Time: Lessons from Immigration." Pp135-57 in James W. Hughes and Joseph J.

Seneca, eds., *America's Demographic Tapestry*. New Brunswick, NJ: Rutgers University Press.

⁴ Myers, Dowell and John Pitkin. 2001. *Demographic Futures for California*. Population Dynamics Research Group, School of Policy, Planning, and Development. Los Angeles, CA: University of Southern California.
<http://www.usc.edu/schools/sppd/futures/cdfindex.htm>

⁵ "Immigration to State Slows, Study Finds," *Los Angeles Times* (January 23, 2001, A-1).

⁶ As described in Dowell Myers, *Cohorts and Socioeconomic Progress*, or other citations above.

⁷ The data are highlighted in Myers, Dowell, John Pitkin and Julie Park. 2004. "California's Immigrants Turn the Corner." Urban Initiative Policy Brief. Los Angeles, CA: University of Southern California.

⁸ Myers, Dowell. 2004. "Accuracy of Data Collected by the Census Question on Immigrants' Year of Arrival," Working Paper No. PDRG04-01.

⁹ Pitkin, John. 2004. "Three Demographic Waves and the Transformation of the Los Angeles Region, 1970-2000," Working Paper No. PDRG04-07.

¹⁰ Myers, Dowell and Julie Park. 2004. "The New Dominance of the First Generation in Post-1965 Immigrant Assimilation." Paper prepared for the meetings of the American Sociological Association in San Francisco, CA.

¹¹ See Morgan et al. "Generating Americans: Ethnic Differences in Fertility." Bachu and O'Connell. "Fertility of American Women: June 1998." as cited above.

¹² Hollman, Frederick W., Tammany J. Mulder, and Jeffrey E. Kallen. 2000. Methodology and Assumptions for the Population Projections of the United States: 1999 to 2100. *Population Division Working Paper No. 38*. Washington, DC: U.S. Bureau of the Census.

¹³ State of California, Department of Finance. 2004b. E-1 City/County Population Estimates, with Annual Percent Change, January 1, 2003 and 2004, Sacramento, California.

¹⁴ Johnson, Hans P., Laura Hill, and Mary Heim. 2001. New Trends in Newborns: Fertility Rates and Patterns in California, *California Counts* 3(1), Public Policy Institute of California. Indeed, the US National Institutes of Health is sponsoring research on differences in fertility by nativity. Schmertmann, Swicegood, and Bean (2004).

¹⁵ No significant nativity difference was found for Asian and Pacific Islander women.

¹⁶ Johnson, Hans P. and Joseph M. Hayes. 2004. The Demographics of Mortality in California., *California Counts* 5(4), Public Policy Institute of California. Differences in mortality by nativity are not incorporated in the projection model because of doubts about the reliability of nativity-specific mortality estimates. See below (Projection Assumptions).

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- ¹⁷ Ahmed, Bashir, and J. Gregory Robinson. 1994. Estimates of Emigration of the Foreign-Born Population: 1980–1990. Population Estimates and Projections, Technical Working Paper No. 9. Washington, DC: U.S. Bureau of the Census.
- ¹⁸ Since the native-born population in particular cohorts would otherwise be declining between censuses.
- ¹⁹ Duleep, Harriet Orcutt and Mark Regets. 1997. "Measuring Immigrant Wage Growth Using Matched CPS Files," *Demography*, May 1997, vol. 34, no. 2, pp. 239-249.; Wong, Janelle. 2000. "'The effects of age and political exposure on the development of the party identification among Asian American and Latino immigrants in the United States.'" *Political Behavior* 22:341-371.; Myers, Dowell and Seong Woo Lee, Immigrant Trajectories into Homeownership: A Temporal Analysis of Residential Assimilation? *International Migration Review* 32 (Fall 1998): 593-625.; Myers, Dowell and Cynthia Cranford, "Temporal Differentiation in the Occupational Mobility of Immigrant and Native-Born Latino Workers," *American Sociological Review* 63 (February 1998): 68-93.
- ²⁰ Hollman, Frederick W., Tammany J. Mulder, and Jeffrey E. Kallen. 2000. Methodology and Assumptions for the Population Projections of the United States: 1999 to 2100. Edmonston, Barry and Jeffrey S. Passel, editors. *Immigration and Ethnicity: The Integration of America's Arrivals*, The Urban Institute Press.
- ²¹ Pitkin, John and Patrick Simmons. 1996. "The Foreign-Born Population to 2010: A Prospective Analysis by Country of Birth, Age, and Duration in the U.S.", *Journal of Housing Research*, 7, 1996.; Pitkin, John. 2001. Projecting the Population of California by Nativity and Period of Arrival to 2020. California Demographic Futures Working Paper. University of Southern California
- ²² Means of DoF E-2 estimates for 7/1/2000 and 7/1/2001, 7/1/2001 and 7/1/2002, and 7/1/2002 and 7/1/2003. Components for calendar 2003 imputed from DoF E-4 population estimate for 1/1/2004 and total births and deaths reported in the vital statistics.
- ²³ Mexico and Central America, Other Latin America and the Caribbean, Asia and Pacific Islands, Europe-the former USSR-Canada-Australia-New Zealand, Middle East and North Africa, and Sub-Saharan Africa.
- ²⁴ Office of Management and Budget. 1977. Race and ethnic standards for Federal statistics and administrative reporting. Statistical Policy Directive 15. E.g. the series E-6 Estimates and population projections of.....
- ²⁵ Office of Management and Budget. 1997. Revisions to the standards for the classification of Federal data on race and ethnicity. Federal Register 62FR58781-58790, October 30, 1997.
<http://www.Whitehouse.gov/wh/eop/omb/html/fedreg.html>.; State of California, Department of Finance. 2004. Population Projections by Race/Ethnicity, Gender and Age for California and Its Counties 2000-2050, Sacramento, California.; U.S. Bureau of the Census. 2004. Interim Projections of the U.S. Population by Age, Sex, Race, and Hispanic Origin: Summary Methodology and Assumptions

²⁶ National Center for Health Statistics. 2003. Release of Bridged-Race 2000 and 2001 Population Estimates for Calculating Vital Rates. <http://www.cdc.gov/nchs/about/major/dvs/popbridge/popbridge.htm>.

²⁷ And the other 49 states and District of Columbia, combined, for the rest of U.S. region.

²⁸ The latest projections of the U.S. population by the Census Bureau match the projected populations of mothers and fathers by race and model the races of the post Census-2000 on this match.

²⁹ Borjas, George. 1999. *Heaven's Door: Immigration Policy and the American Economy*. Princeton, NJ: Princeton University Press.; Portes, Alejandro and Ruben Rumbaut. 2001. *Legacies: The Story of the Immigrant Second Generation*. Berkeley, CA: University of California Press. Both of the previous works uses a broader definition of 2nd generation (a native-born resident with at least one foreign-born parent). Ramakrishnan, Karthick. 2004. "Second-Generation Immigrants? The "2.5 Generation" in the United States." *Social Science Quarterly* 85(2):380-399.

³⁰ See the extensive review of evidence on data accuracy of the census year of arrival question, Dowell Myers, "Accuracy of Data Collected by the Census Question on Immigrants' Year of Arrival," Working Paper No PDRG04-01, Population Dynamics Research Group, University of Southern California.

³¹ National Center for Health Statistics. 2003. Release of Bridged-Race 2000 and 2001 Population Estimates for Calculating Vital Rates. <http://www.cdc.gov/nchs/about/major/dvs/popbridge/popbridge.htm>.

³² Children not living with their mother were assigned generations based on the nativity of other co-resident adult relatives, as a proxy for the mother. The relatively small numbers of foster children not living with relatives were assigned generation categories in the same proportion as those living with relatives.

³³ U.S. Department of Health and Human Services, National Center for Health Statistics. 2004a. Births, Marriages, Divorces, and Deaths: Provisional Data for 2003. *National Vital Statistics Reports*. 52(22).

³⁴ U.S. Department of Health and Human Services, National Center for Health Statistics. 2004. Deaths: Preliminary Data for 2002. *National Vital Statistics Reports*. 52(13). Deaths: Preliminary Data for 2002.

³⁵ U.S. Department of Health and Human Services, National Center for Health Statistics. 2004a. Births, Marriages, Divorces, and Deaths: Provisional Data for 2003. *National Vital Statistics Reports*. 52(22).

³⁶ State of California, Department of Finance. 2004a. E-2 California County Population Estimates and Components of Change, Sacramento, California.; State of California, Department of Finance. 2004b. E-1 City/County Population Estimates, with Annual Percent Change, January 1, 2003 and 2004, Sacramento, California.

³⁷ State of California, Department of Finance. 2004a. E-2 California County Population Estimates and Components of Change, Sacramento, California.; State of California, Department of Finance. 2004b. E-1 City/County Population Estimates, with Annual Percent Change, January 1, 2003 and 2004, Sacramento, California.

³⁸ Hollman, Frederick W., Tammany J. Mulder, and Jeffrey E. Kallen. 2000. Methodology and Assumptions for the Population Projections of the United States: 1999 to 2100.

³⁹ Pitkin, John. 2004. Three Demographic Waves and the Transformation of the Los Angeles Region, 1970-2000. Population Dynamics Research Group Working Paper PDRG04-07. University of Southern California. This region contains Los Angeles county and includes 49 % of the state's population.

⁴⁰ Hollman, Frederick W., Tammany J. Mulder, and Jeffrey E. Kallen. 2000. Methodology and Assumptions for the Population Projections of the United States: 1999 to 2100. Although the birthplace of decedents is recorded on death certificates, possible inconsistencies between this data and census data on place of birth (which affects the denominators used to calculate mortality rates) raise doubts about the reliability of estimated mortality differences between native- and foreign-born populations. See e.g. Johnson and Hayes (2004).

⁴¹ This share, 22.0 % is slightly below the Census Bureau's estimate of the share for 2000-2003 of 22.4 %.

⁴² The data are highlighted in Myers, Dowell, John Pitkin and Julie Park. 2004. "California's Immigrants Turn the Corner." Urban Initiative Policy Brief. Los Angeles, CA: University of Southern California.

⁴³ Hollman, Frederick W., Tammany J. Mulder, and Jeffrey E. Kallen. 2000. Methodology and Assumptions for the Population Projections of the United States: 1999 to 2100. This component is included to account for observed differences between the numbers of births in the years prior to Census 2000 and the number of children of foreign-born women tallied in that census. It is assumed that these differences reflect the departure of the children born to temporary residents. Population-based rates of emigration are calibrated to these differences and held constant in the future.

⁴⁴ Ahmed, Bashir, and J. Gregory Robinson. Estimates of Emigration of the Foreign-Born Population: 1980-1990.

⁴⁵ Myers, Dowell. 2004. *Cohorts and Socioeconomic Progress*. The American People series, Population Reference Bureau and Russell Sage Foundation; Myers, Dowell and Julie Park. 2004. "The New Dominance of the First Generation in Post-1965 Immigrant Assimilation." Paper prepared for the meetings of the American Sociological Association in San Francisco, CA.

⁴⁶ As described in Dowell Myers, *Cohorts and Socioeconomic Progress*, or other citations above.

⁴⁷ The educational attainment rates reported in this section are derived from the March Current Population Surveys of 1998, 2000, and 2002, pooling these data to

achieve a more substantial sample size for California Latinos in this target age group. High school completion is slightly higher in these data than reported in the 2000 census, but the latter does not collect information on the generational status of native-born residents.

⁴⁸ These failings are amply documented by the Diversity Scorecard Project conducted at the USC Center for Urban Education.

⁴⁹ Vernez, George, Allan F. Abrahamese, and Denise D. Quigley. 1996. *How Immigrants Fare in U.S. Education*. Santa Monica, CA: The RAND Corporation.

⁵⁰ Again, the findings from the Diversity Scorecard Project are instructive.

⁵¹ March Current Population Surveys 2000 and 2002; A similar effect of duration of U.S. residence was found in a study by Howard Greenwald, Suzanne O'Keefe and Mark DiCamillo, 2003, "California's Working Latinos and health Insurance: New Facts and Policy Challenges."

⁵² Table 4 in California Opinion Index. January 2005. "A Digest Summarizing California's Vote in the 2004 Presidential Election." San Francisco, CA : The Field Research Corporation.

⁵³ Census Bureau. November 2002 Current Population Survey

⁵⁴ Census Bureau. November 1998, 2000, and 2003 Current Population Survey

⁵⁵ Huntington, Samuel. 2004. *Who Are We? The Challenges to America's National Identity*. New York: Simon and Schuster.

⁵⁶ Bean, Frank D. and Gillian Stevens. 2003. *America's Newcomers and the Dynamics of Diversity*. New York: Russell Sage Foundation.

⁵⁷ Data are derived from the language reported spoken at home in Census 2000 and from a special survey on language and assimilation that was conducted by the Pew Hispanic Center.

⁵⁸ Pew Hispanic Center; Census 2000 for language used at home.