

*Introducing a New Data Resource
For Policy and Planning Applications*

Demographic Futures for California

Projections 1970 to 2020 that Include
a Growing Immigrant Population
With Changing Needs and Impacts

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Executive Summary

California is in the midst of a 15-million person growth surge, with a population rising from 29.5 million in 1990 to 45.0 million in 2020. The magnitude of growth is daunting. The anticipated 15.5 million increase is equivalent to adding the population of the entire state of Florida – fourth largest in the nation – within California’s limits in just 30 years. The projected average increase of five million additional residents per decade is not a sharp departure from the past, as it continues a pace of total growth that has become familiar since 1960. Nonetheless, planners and policy makers face severe challenges in meeting the demands of this population growth.

What is most different about recent growth trends is the rapid increase in immigrant population. Back in 1970, only 8.6 percent of the state’s population was foreign born. The foreign-born share rose sharply to 15.1 percent in 1980 and 21.8 percent in 1990, as the absolute numbers of foreign-born residents doubled and nearly doubled again. Continuing this upward trend to 2000 and beyond would lead the state to ever larger shares of foreign-born residents.

Knowledge about the growth in foreign-born population is especially important in California. This report documents many areas where the foreign-born are dramatically different in their impacts and demands for goods, services, and infrastructure than native-born residents. Topics addressed include poverty, homeownership, smoking behavior and access to health care, education, public transit use, and English speaking ability. Equally important is information about how many residents are newly arrived or long-resident immigrants. In many cases the differences between newer and longer residents are greater than between native and all foreign-born or between races.

No public agency in the U.S. provides population projections that include nativity and duration of residence. In much of the country, immigrants are

only a small presence and it is possible to make sound plans without information about the origin of the population, but in California, as other states with large concentrations of immigrants, we cannot plan for the future without better knowledge of the foreign-born population.

The California Demographic Futures database introduced by this report seeks to fill that pressing need. Projections for the state and selected counties are prepared for 5-year intervals from 1980 to 2020. They include the age, sex, and race-ethnic dimensions found in most professionally prepared population projections. In addition, the projections interleave a nativity dimension (native-born or foreign-born) and, for the foreign-born, further detail the decade of arrival in the US for each immigrant cohort. To increase their usability in California, our projections are controlled to age and race totals produced by the Demographic Research Unit in the California Department of Finance. Those projections are the official figures produced by the State of California for purposes of state and local planning.

The innovative contribution of the California Demographic Futures database is its addition of immigrant status to the age-sex-race-ethnic dimensions. Previously, the share in each detailed group that is foreign-born was implicit but not separately tracked. These projections indicate not only the number of newcomers expected to arrive in future years, but, more importantly, include the number of existing immigrant residents who will continue to reside in future years. As described in this report, the future trajectories of those long-resident immigrants will have great impact on the state in the years ahead.

Several early findings that may be surprising emerge from analysis with the California Demographic Futures database. For one, we find that the total immigrant share of the California population is leveling off after two decades of steep increases. In 2000 and beyond, this immigrant share plateaus between 24 and 27 percent of the total state population.

We also find that the share that are newcomer immigrant residents (arrivals within the past 10 years) has already peaked and is now declining. The immigrant newcomer share of the state's population rose from 3.4 percent of the state's population in 1970, to 7.6 percent in 1980, and to 11.1 percent in 1990. We now estimate the share to have fallen to 8.3 percent in 2000, and project it to be 6.9 percent in 2010 and 6.1 percent in 2020. With the total foreign born stock retaining a fairly constant share of the state's population, and with the newcomer share declining, this

means many more of the foreign-born residents are becoming long-resident immigrants.

Exhibit A

Percentage of California Population that is Foreign Born

	Census			Projection		
	1970	1980	1990	2000	2010	2020
Total Foreign Born	8.6%	15.1%	21.8%	24.4%	26.0%	26.4%
New Arrivals (last 10 years)	3.4%	7.6%	11.1%	8.3%	6.9%	6.1%
Settled 10-19 Years	1.9%	3.4%	5.9%	8.2%	6.7%	5.7%
Settled 20+ Years	3.2%	4.0%	4.8%	7.9%	12.4%	14.6%

This settlement process promises many benefits to society. As one key indicator, the upward trend in poverty will be reversed because of these immigrant changes. A detailed analysis of poverty rates among the foreign born is offered as an example of the favorable implications flowing from our projections. Poverty worsened from 14.8 percent 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. Because new immigrant arrivals have much higher poverty rates than those residing for more than 10 years, the rapid increase in new arrivals pushed up the overall poverty rates of the foreign born. Drawing upon the new immigrant population projections, and applying the different poverty rates expected for recent and long resident immigrants of each duration, we project a reversal of this upward poverty trend beginning in 2000, 18.2 percent, and falling further to 16.9 percent in 2010.

Exhibit B

Percent Poverty Among California's Foreign-Born Residents

	Census			Projection	
	1970	1980	1990	2000	2010
Total Foreign Born	14.8%	17.6%	19.8%	18.2%	16.9%
Latino	21.7%	22.7%	25.0%	23.3%	21.8%
Asian and Pacific islander	14.4%	16.1%	16.2%	12.8%	10.9%
Other (white/black)	10.4%	10.8%	11.1%	11.8%	11.1%

Additional brief snapshots are presented of the immigrant duration effects on a wide array of social behaviors and outcomes, including tobacco smoking, health insurance, public transit use, educational attainment, English proficiency, and homeownership.

Overall, the evidence contained in the population projections released here suggests a different and brighter future for California residents than has been previously assumed. Without detailed information on the immigrant make-up of the population, these trends cannot be measured or projected into the future.

Once the 2000 census results pertaining to immigration are released in the coming year, we expect our findings to be confirmed. The best available check comes from the Current Population Survey conducted in March 2000. Those results are from only a small sample in California and therefore imprecise, but they provide confirmation of the figures projected here.

Accordingly, it is possible to view our 2000 estimates as a preview of census tabulations on the effects of immigration in California that are not scheduled for release for another year or more. Especially noteworthy are the stabilization of the immigrant share in the population at slightly over 25 percent and the growing dominance of long-resident immigrants. We also expect that our findings on poverty trends and other outcomes will also be confirmed once the relevant 2000 census counts are ultimately released.

The Need for an Immigrant Dimension in Population Projections

Since immigration restrictions were relaxed in 1965, the foreign-born share of the US population has steadily grown, rising from 4.7% to 10.4% of the population from 1970 to 2000. In California, however, the foreign-born population has long contributed an even larger share of the total. Back in 1970, the foreign-born share already stood at 8.6% and by 2000 it reached an estimated 24 to 26% of the state's population. Because California's foreign-born residents are relatively more numerous, they are even more significant than in other states with large immigrant concentrations.

[Note on terminology: The terms foreign-born and immigrant are used interchangeably in this report, notwithstanding important legal classifications of the Immigration and Naturalization Service, because those classifications are not generally recorded as part of the demographic databases available for measuring and projecting population.]

Numerical Importance

As shown below, the foreign-born share of California's residents stands well above that of other states, exceeding by a substantial margin the foreign-born shares in states with the next highest concentrations in their populations.

The foreign-born component of California's population contributes even more heavily to the growth in the state's population. During the 1990s, growth in the foreign-born population amounted to 40.9% of all the population increase in the state. It bears emphasis that this figure does not include the native-born children born to these foreign-born residents. Approximately half of children born in California are believed to be born to foreign-born women. When those children are added in, the immigrant

contribution to population growth in the state well exceeds 50% of total growth.

Exhibit 1
Percentage of 2000 Population that is Foreign Born

California	25.9
New York	19.6
Florida	18.4
Hawaii	16.1
Nevada	15.2
U.S. total	10.4

Source: Census Bureau (2001); sample estimates based on the Current Population Survey of March 2000

Variation in Characteristics

More than the total number of residents is at issue. Immigrants have very different characteristics and behavior than do the native born of the same race-ethnicity. In many cases, the differences between immigrants and the native-born are larger than the differences frequently reported between different racial and ethnic groups. Some examples include tobacco use, English proficiency, voting participation, and poverty.

As described in the next section, even greater differences exist *within* the foreign born population, principally between newly arrived and long-resident immigrants. Immigrants' characteristics change dynamically the longer they remain in the U.S. For this reason it is important to gain knowledge of key differences that occur over time as immigrants reside longer in the U.S.

An Overview of Immigrant Duration Effects in Policy Areas

Contrasting Newcomer and Long-Resident Immigrants

A host of different behaviors and characteristics may differ between immigrants and others. Exhibit 2 provides a snapshot contrasting the native and foreign born in California, and contrasting California's immigrant residents by their length of time residing in the U.S. Topics examined include:

- o Poverty
- o Health insurance
- o Tobacco use
- o Public transit use
- o English proficiency
- o College education
- o Fertility, and
- o Homeownership

The poverty graph shows the foreign born with poverty rates 1.4 times greater than for the native born. However, the foreign-born poverty rate varies from a high of nearly 28% among newcomers of less than 10 years U.S. residence to 9% among those with 30 or more years residence. Thus the difference in poverty rate between recent and older immigrants is 3-to-1, twice as great as the difference between all immigrants and the native born.

Even greater differences between the native born and immigrants of different durations are found with regard to health uninsurance, public transit use, English speaking proficiency, and homeownership. In all these cases we see evidence of dramatic improvements in immigrant living conditions with increased duration of residence in the U.S.

Exhibit 3 provides further details on these same indicators, principally reporting the data separately for Latinos, the largest immigrant group in California. Generally the same patterns are found in the case of Latinos as for all immigrants. This shows that the differences between newer and earlier immigrants are not due to potential differences over time in the racial and ethnic make-up of the immigrant arrival streams. Latinos by themselves also show the strong upward improvement found for all immigrants.

The one noteworthy difference between Latinos and all immigrants in Exhibit 2 is found with regard to tobacco use. Among Latinos, tobacco use is much more common among the newest arrivals than among those who have been here longer. Conversely, among non-Latino immigrants, the opposite pattern is found: tobacco use is less common among newcomers and is higher among the long-resident immigrants. This ethnic difference uncovered in the case of tobacco use is not surprising, given that smoking is a more specifically cultural trait than any of the other indicators we have examined.

Exhibit 2

Comparison of Various Social and Economic Indicators by Nativity and Duration in California

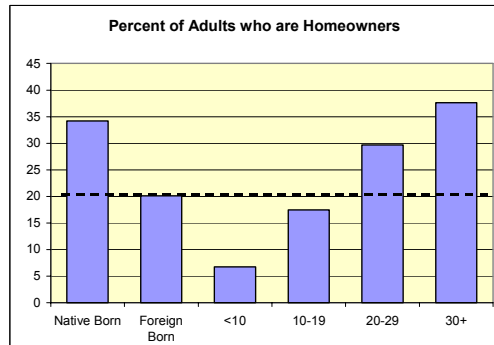
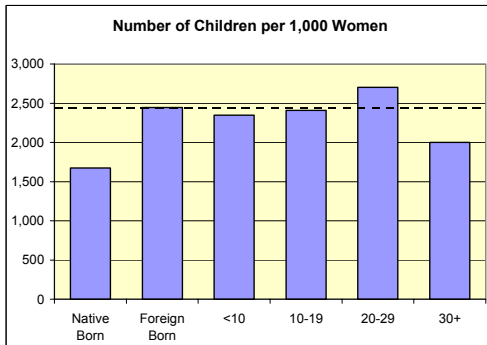
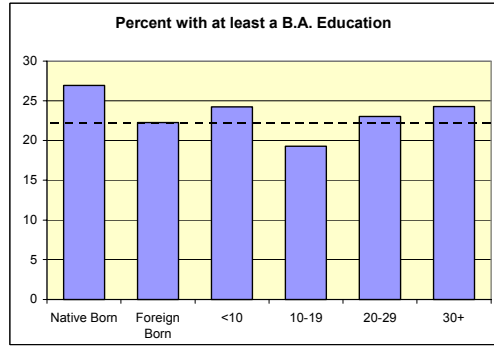
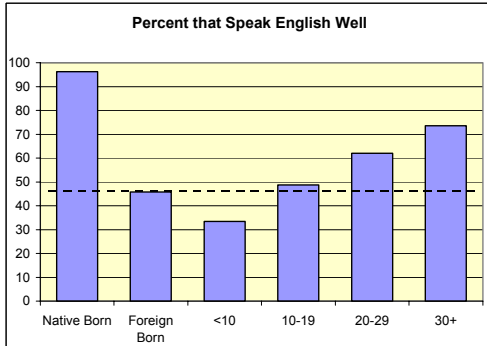
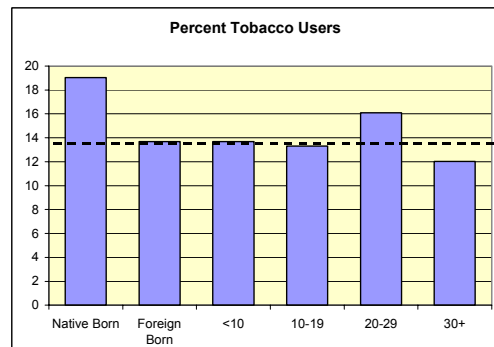
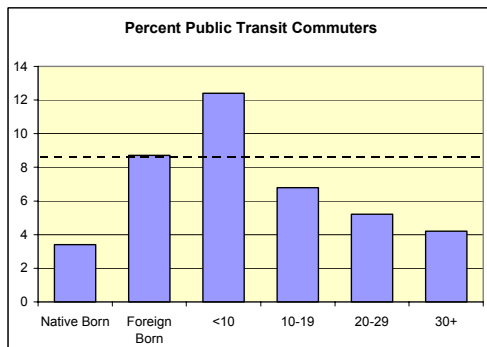
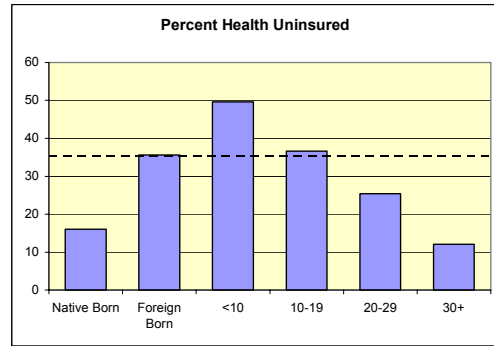
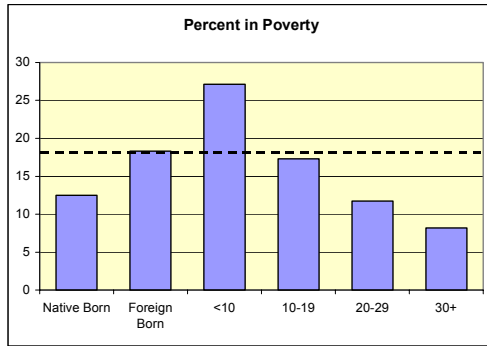


Exhibit 3
Social and Economic Indicators by Nativity and Immigrant Duration in California for Total and Latino Population

	Below Poverty ¹	Without Health Insurance ¹	Education HS diploma + ²	Education BA or Higher ²	Home- Ownership ²	Current Smoker ³	Children Ever Born Per 1,000 Women ⁴	English Proficiency ⁵	Public Transit Use ⁵
Total	13.9	21.0	81.2	25.4	29.6	17.4	1,968	83.9	4.7
Non-Latino	9.6	14.7	91.4	32.3	34.0	18.0	1,702	92.5	3.8
Latino	23.5	35.0	53.2	6.4	17.7	12.6	2,679	57.2	8.2
Native Born	12.5	16.0	90.3	26.9	34.2	19.0	1,674	96.3	3.4
Foreign Born	18.3	35.6	62.2	22.3	20.1	13.7	2,447	45.8	8.7
Less than 10 yrs	27.1	49.6	58.3	24.2	6.8	13.7	2,346	33.4	12.4
10-19 years	17.3	36.6	62.8	19.3	17.5	13.3	2,408	48.8	6.8
20-29 years	11.7	25.4	64.0	23.0	29.7	16.1	2,703	62.1	5.2
30 years +	8.2	12.1	65.6	24.3	37.6	12.0	2,000	73.5	4.2
Latino	23.5	35.0	53.2	6.4	17.7	12.6	2,679	57.2	8.2
Native Born	22.4	25.1	76.5	7.9	20.8	10.8	2,317	83.9	3.4
Foreign Born	24.9	48.0	39.1	5.6	15.9	13.0	2,809	31.8	11.3
Less than 10 yrs	33.7	65.4	33.8	3.9	4.0	15.5	2,294	23.4	16.0
10-19 years	24.5	45.2	42.0	5.9	13.3	12.2	3,036	36.8	8.2
20-29 years	15.8	35.1	41.8	5.3	27.4	11.7	2,669	44.8	5.6
30 years +	13.2	21.4	38.2	9.1	29.1	7.8	2,911	50.4	5.1

Data Source:

- 1 Current Population Survey, 2000
- 2 Current Population Survey, 2000 (age 20 years or older)
- 3 Current Population Survey, 1995-1996 Tobacco Use Supplement (age 15 years or older)
- 4 Current Population Survey, 1995, 1998 June Fertility Supplement (age 15 to 44)
- 5 1990 Public Use Microdata Sample (5%)

Gender and Immigrant Cohorts

Further studies reveal substantial gender differences in smoking as well. Even though Exhibit 1 shows only slight differences in smoking behavior between newcomer and long-resident immigrants, this disguises important differences between men and women. Exhibit 3 shows that female immigrants smoke much less than males at arrival but converge toward the male rate of smoking the longer they reside in the U.S. As this example shows, depending on the behavioral outcome or policy area being addressed, it may be important to employ profiles of prospective populations that are more detailed in some ways or others.

Exhibit 4
Percent Who Are Current Smokers
By Immigration Status and Duration of Stay

Immigration Status	Women	Men
Native Borns	17.6	20.6
Foreign Borns	6.9	20.8
Duration of Stay		
<10 years	5.3	22.5
10-19	5.0	20.7
20-29	8.2	23.5
30 +	12.3	11.0
Overall	14.3	20.7

Age at Arrival and Immigrant Cohorts

A series of other studies has examined age patterns within immigrant cohorts (Myers 1999; Myers and Cranford 1998). Immigrants who arrive at a very young age are commonly termed the 1.5 generation because they closely resemble the second generation. When these young immigrant children reach adulthood, they often exhibit behaviors and attainments that are quite different from older members of the same immigrant wave. Two topic areas where our prior studies have found it is most important to address age cohorts within immigrant cohorts are occupational attainment (Myers and Cranford 1998) and homeownership (Myers et al 1998). Although the present study does not delve into the age dimension of California's demographic futures, the necessary data are contained in the database for use in topics where that is necessary.

Population Projections by Nativity and Duration

The population projections are carefully grounded in the context of accepted data and practices. The projections are “nested” within the trends for larger geographies and are controlled to the population totals developed by the California Department of Finance for purposes of state and local policy making. As described here, the contribution here is to make explicit an immigrant dimension that is not separately tracked within existing alternative population projections.

Overview of the Population Projection Methodology

The population of the state and Los Angeles County are projected forward from current estimates in five-year increments to 2020 by the widely accepted method of cohort components. In this method, the future population is projected as equal to the past population *plus* the number of births (fertility), *minus* the number of deaths (mortality), *plus* net migration in the intervening period. Because per capita fertility and mortality rates vary widely by age, race, and, especially fertility, by sex, the populations and resulting components of change are projected separately for population sub-groups categorized by age, race, and sex.

The Census Bureau and other demographers have long recognized that the international migration component also varies greatly by nativity. Rates of international migration, both to *and* from the U.S., are much higher for the foreign-born than for the native-born of similar age and race. This difference has been partially incorporated in the Census Bureau’s projections of the national population through separate international immigration and emigration components for the native and foreign-born population. However, these components were not used by the Bureau to project the population by nativity. Once the components of change were applied, the foreign-born were added into, and indistinguishable from, the total population.

By retaining the information on the number and nativity of migrants that was lost in earlier national population projections, the new projections of the California Demographic Futures Project explicitly break out the population by nativity and period of arrival in the U.S., as well as by age, race, and sex. Reliable data from the 1990 census show that domestic migration rates for the foreign-born population are markedly different from and generally below those of the native-born population. Therefore, the new projections also incorporate different domestic migration rates for the various nativity categories.

Although there are probably also differences in fertility and mortality rates between the native- and foreign-born populations, the California Demographic Futures projections use the same rates for the native-born and immigrant populations. When more precise data on these differences become available, it will become possible to factor nativity (and duration) differentials into the birth and death components of the projections.

The projections for California are “nested” within parallel projections for the rest of the United States, and the projections for Los Angeles are similarly “nested” within those for the state. By projecting the U.S. population outside of the state, we are able to project migration from other states to California based on per capita rates of migration. The national projections also make it possible to benchmark the projections to the international migration and other assumptions of the Census Bureau’s national projections. The new projections directly incorporate the Census Bureau’s fertility and mortality rate assumptions (1993) as the basis for the national birth and death components.

The international migration component incorporates Immigration and Naturalization Service data on the number, national origin, and intended state of residence of immigrants and refugees admitted to the U.S. from 1990 through 1998 and age, origin, nativity, and duration-specific per capita rates for foreign-born emigration. These emigration rates reflect the best estimates from the 1980 and 1990 censuses and are much more credible than the fixed emigration assumption used in Census Bureau projections until last year which did not take the growth of the foreign-born population into account.

Comparisons of the national projections show small overall deviations but agreement between the components of change and those used in the more recent projections by the Census Bureau. For a detailed discussion of these comparisons, see the report “Projecting the Population of California by Nativity and Duration to 2020” [<http://www.usc.edu/schools/sppd/futures>].

The additional components of change required for the state projections are California births and deaths and domestic migration to and from the state. Fertility and mortality are benchmarked to the Census Bureau's national (1993) projected rates with race-specific adjustments calibrated to actual total births and deaths in the early 1990s. Rates of domestic migration, by age, race, sex, nativity, and duration of U.S. residence, are benchmarked to the average of 1975-1980 from the 1980 census and 1985-1990 from the 1990 census data on residence 5 years ago, and held constant through the projection period.

For a consistent, reliable starting point for estimating and projecting the size and age-race-sex-nativity-duration composition of the population at the nation, state, and county levels, the California Demographic Futures projections use the 1990 census counts.

Finally, the projections for California and Los Angeles are controlled to the 1998 California Department of Finance projections by age, race, and sex, with (equal) proportional adjustments for the different nativity-duration categories. The principal effect of this control is on the rate of domestic migration, which was relatively high in the benchmark 1975-1980 and 1985-1990 periods but later fluctuated widely, falling-off to negative net migration in 1994 followed by a resumption of net inflows. The adjustment to the DOF projections lowers net migration from a level that has already been shown not to be sustainable to one that is in line with the long-term historical average. Since recent fertility, mortality, and international migration in California in recent years have been both much closer to the benchmark levels and more stable than domestic migration, the effect on these components of controlling to the official projections can be assumed to be small. More information on the effect of the control to the Department of Finance projections can be found in the Project Report "Projecting the Population of California by Nativity and Duration to 2020."

These new projections are, at the same time, both a modification and improvement of earlier regional projections by nativity for the Fannie Mae Foundation Immigration Research Project and a substantial enhancement of the Department of Finances 1998 projections as the result of the disaggregation by nativity and period of arrival. Consistency with the Department of Finance's projections is of great value for purposes of policy analysis, because these projections are the authoritative benchmarks for all state and local policy in California.

Projection Results for California

Over the thirty year span from 1990 to 2020, the projections indicate that California's foreign-born population will increase by 5.5 million, or 83.8 percent, from 6.5 million to 12.0 million. Although robust, this pace of growth is less than occurred between the Censuses of 1980 and 1990. Over the whole 30-year projection period, the foreign-born share of the state's population is projected to rise by only 4.6 percent, following a 6.8 percent jump between 1980 and 1990. We estimate that most of the increase had occurred by the 2000 census and the foreign-born share of California's population is projected to stabilize at slightly over 26 percent after 2010. See top left panel of Exhibit 5.

Although the projections reflect an assumption that the inflows of immigrants to California peaked during the 1980's, the leveling off of the immigrant share of the total population is mainly due to three other factors.

- The outflows of foreign-born migrants from California increase as the foreign-born population increases;
- The number of foreign-born residents who die increases as the foreign-born population increases and ages; and, most importantly,
- The total population is projected to grow rapidly due to the rise of the native-born population by an average of over 300 thousand a year.

The rapidly growing number of native-born children of immigrants accounts for much of the overall population increase.

Over time, more immigrants remain in California and as these immigrants age, the number of foreign-born residents who entered the U.S. more than twenty years ago is projected to soar by 364 percent from 1990 to 2020. (See Exhibit 5, top right panel.) At the same time, long-resident immigrants' projected share of the entire foreign-born population more than doubles, from just 21.9 percent to 55.3 percent. Correspondingly the projected share of the foreign-born population who are recent arrivals, those who entered the U.S. in the previous ten years, drops by half, over the thirty years, even though the number remains near the level attained in 1990. (See Exhibit 6).

By contrast, the projected racial make-up of the foreign-born population remains relatively stable. Latinos, at 52.7 percent of the total in 1990, continue to constitute a majority though the projection period. (Lower left

panel of Exhibit 5.) The largest projected shifts in the racial mix are a 4.0 percent increase in the share of Latinos, to 56.7 percent in 2020, and a 4.9 percent decline in the share of Whites, to 13.8 percent in 2020. The racial composition of the recently arrived foreign-born population remains quite stable during the thirty-year projection, due to the assumption of continued constant immigration rates. (Lower right panel of Exhibit 5.) Note that the racial distribution of recent immigrants was nearly the same in the 1990 census as it was in the 1980 census.

Exhibit 5 Summary of Population Projections for California

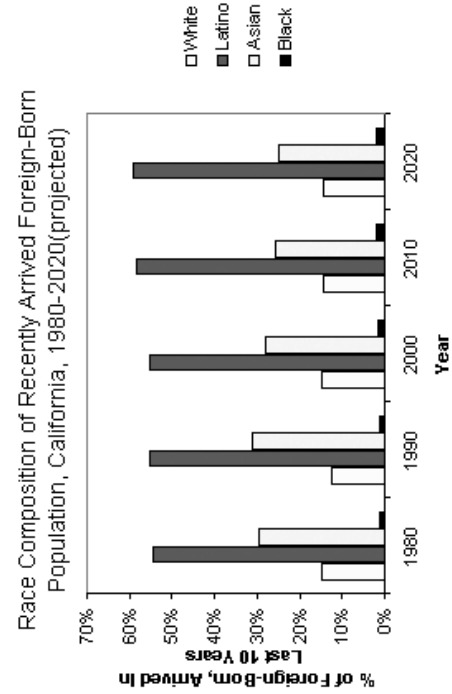
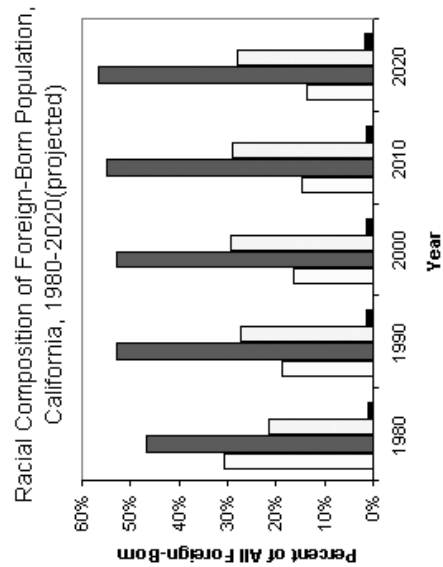
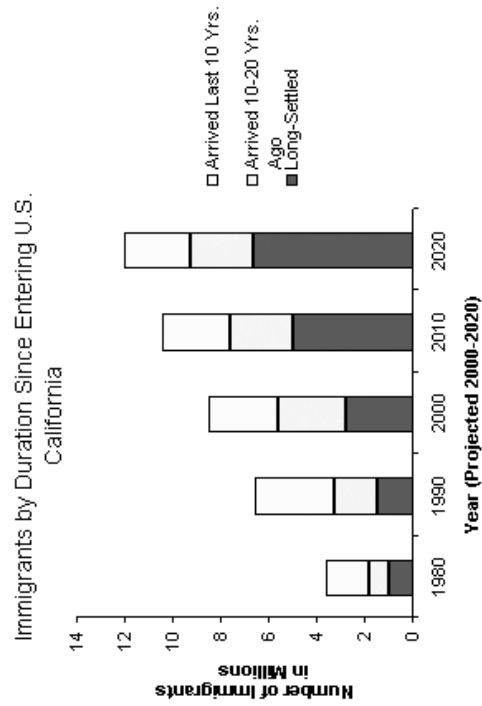
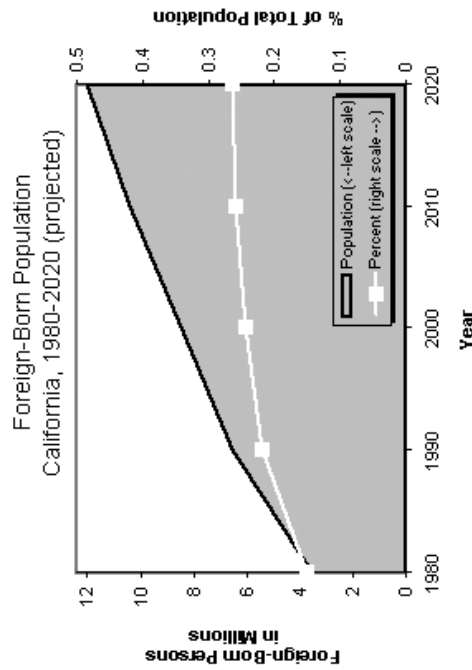


Exhibit 6

State of California, Population, by Nativity and Period of Arrival in the United States, 1980-2020 (projected)

	Foreign Born by Period of Arrival									
	Total	Native Born	All Foreign Born	Before 1960	1960-1969	1970-1979	1980-1989	1990-1999	2000-2009	2010-2019
1980	23,725,000	20,153,000	3,572,000	956,000	806,000	1,810,000				
1990	29,942,000	23,405,000	6,537,000	678,000	755,000	1,777,000	3,326,000			
2000	34,653,000	26,187,000	8,466,000	488,000	659,000	1,585,000	2,852,000	2,883,000		
2010	39,958,000	29,572,000	10,386,000	318,000	553,000	1,430,000	2,641,000	2,672,000	2,772,000	
2020	45,449,000	33,432,000	12,017,000	181,000	417,000	1,219,000	2,346,000	2,482,000	2,585,000	2,786,000
	Percent									
1980	100%	84.9%	15.1%	4.0%	3.4%	7.6%				
1990	100%	78.2%	21.8%	2.3%	2.5%	5.9%	11.1%			
2000	100%	75.6%	24.4%	1.4%	1.9%	4.6%	8.2%	8.3%		
2010	100%	74.0%	26.0%	0.8%	1.4%	3.6%	6.6%	6.7%	6.9%	
2020	100%	73.6%	26.4%	0.4%	0.9%	2.7%	5.2%	5.5%	5.7%	6.1%

1980 (4/7): U.S. Census, 5% Public Use Microdata.

1990 (7/7): estimate based on U.S. Census, 5% Public Use Microdata.

2000, 2010 and 2020 (7/7): projections of the California Demographic Futures Project

Projection Results for Los Angeles

Between 1990 and 2020, the projections indicate that Los Angeles County's foreign-born population will increase by 60.3 percent, from 2.9 million to 4.7 million. Although robust, this pace of growth is less than occurred between the 1980 and 1990 censuses. Over the entire 30-year projection period, the foreign-born share of the county's population is projected to rise by 7.6 percent, a fraction of the 17.3 percent 1980-1990 jump, when it rose from one person in six to one person in three.

If, as projected, past migration rates continue in the future, the foreign-born share of Los Angeles's population will stabilize in the range of 39-40 percent between 2010 and 2020. (See top left panel of Exhibit 7.) The foreign-born share of the county rises 14 percent above its peak share of the state because:

1. immigration is higher relative to the total population (over 60 percent higher in the 1980s); and because
2. the native-born non-Latino White and Black populations are decreasing due to high out-migration.

Eventually, the large projected increases in the native-born children of immigrants and emigration and mortality of the foreign-born population will cause the foreign-born share of the county's population to level off and decline. The dynamics are the same in Los Angeles as they are for the state.

Over time, the waves of new immigrants become long-term residents. As successive cohorts of immigrants who arrived at different times cumulate, the number who entered the U.S. more than twenty years ago is projected to soar by 371 percent from 1990 to 2020 and their share of Los Angeles's entire foreign-born population almost to triple, from 18.0 percent to 52.9 percent. (See Exhibit 7, top right panel.) Correspondingly the projected share of the foreign-born population who are recent arrivals, those who entered the U.S. in the previous ten years, drops by one-third over the thirty-year projection period. (See Exhibit 8.)

In contrast to the changes in length of residence, the projected racial make-up of the foreign-born population remains relatively stable. Latinos, at 60.7 percent of the total foreign born in 1990, remain a substantial majority though the projection period. (Lower left panel of Exhibit 7.) No large shifts in the racial mix are projected. The racial composition of the recently arrived foreign-born population also remains quite stable during

the thirty-year projection. This is due to the assumption of continued constant immigration rates. (Lower right panel of Exhibit 7.)

Exhibit 7
Summary of Population Projections for Los Angeles

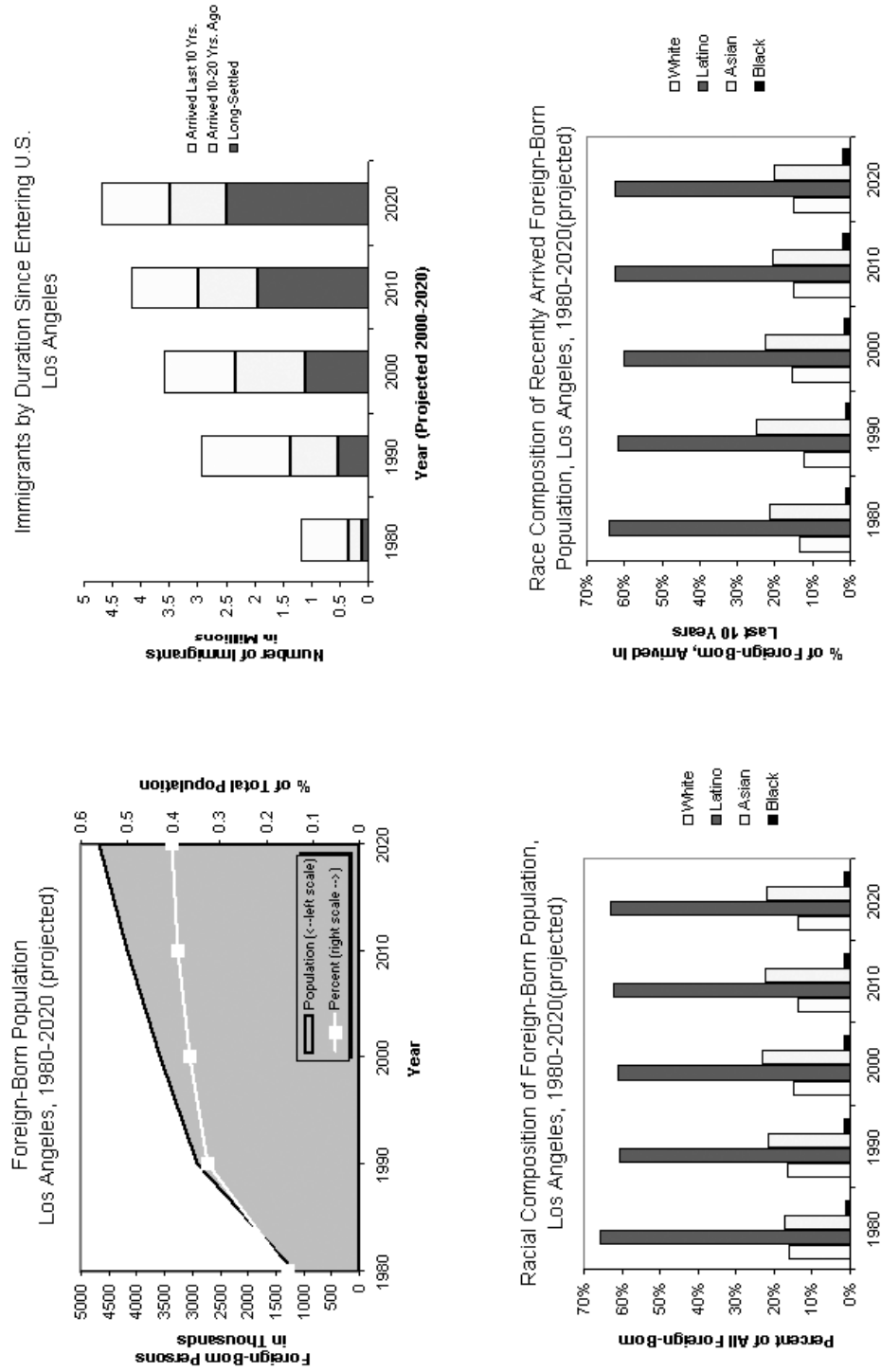


Exhibit 8

Los Angeles, Population, by Nativity and Period of Arrival in the United States, 1980-2020 (projected)

	Foreign Born by Period of Arrival									
	Total	Native Born	All Foreign Born	Before 1960	1960-1969	1970-1979	1980-1989	1990-1999	2000-2009	2010-2019
1980	7,495,000	6,329,000	1,166,000	95,000	236,000	835,000				
1990	8,902,000	5,978,000	2,924,000	223,000	303,000	844,000	1,555,000			
2000	9,839,000	6,247,000	3,592,000	145,000	249,000	709,000	1,237,000	1,253,000		
2010	10,604,000	6,442,000	4,162,000	87,000	197,000	604,000	1,058,000	1,033,000	1,184,000	
2020	11,576,000	6,890,000	4,686,000	47,000	143,000	498,000	898,000	891,000	995,000	1,214,000

	Percent									
1980	100%	84.4%	15.6%	1.3%	3.1%	11.1%				
1990	100%	67.2%	32.8%	2.5%	3.4%	9.5%	17.5%			
2000	100%	63.5%	36.5%	1.5%	2.5%	7.2%	12.6%	12.7%		
2010	100%	60.8%	39.2%	0.8%	1.9%	5.7%	10.0%	9.7%	11.2%	
2020	100%	59.5%	40.5%	0.4%	1.2%	4.3%	7.8%	7.7%	8.6%	10.5%

1980 (4/1): U.S. Census, 5% Public Use Microdata.

1990 (7/1): estimate based on U.S. Census, 5% Public Use Microdata.

2000, 2010 and 2020 (7/1): projections of the California Demographic Futures Project

Application: Projection of Immigrant Poverty in California

The population projections in the California Demographic Futures database provide a basis for projecting future immigrant outcomes. As shown, many behaviors and characteristics differ sharply between the native born and immigrants of different residence durations. If we know how many California residents in the future will fall into different population categories, we can project the expected outcomes for this population mix.

We have chosen to focus on the poverty rate because the proportion of a population whose income falls below the poverty threshold (the poverty rate) is an especially important outcome. The poverty rate is at once a crucial indicator of well-being and an indicator of economic prosperity and demands for goods and services. It therefore has broad social, economic and fiscal effects.

As shown above, poverty rates differ dramatically between the native born and immigrants of different residence durations. Here we use our population projections to examine the implications of these differences for the future.

Immigrants are believed to account for much the increase in California's poverty rate (Johnson and Tafoya 2000). Now, after three decades of increase in poverty among California's immigrants, our findings are that poverty has begun to fall and will continue to do so in the decade ahead. Immigrant fortunes have turned a corner for reasons that are deep-seated and longer lasting than the temporary effects of the current economic boom.

The reasoning behind this favorable forecast is clear-cut. It draws upon the experience of immigrant progress recorded by the last three censuses, and it takes advantage of new potentials for foresight that are provided by the California Demographic Futures population projections. Knowing that a smaller share of immigrant residents in the future will be newly arrived, and that a much larger share will be longer resident, the average poverty

rate of the foreign born will shift toward that of the long-resident immigrants. The projection model described below computes the combined outcome of these trends over time.

Long Term Poverty Trends

The long-term trends in poverty rates for immigrant and native-born residents are shown in Exhibit 9. The California experience is displayed in the top graphs, while the national trend is given for comparison below.

Two graphs are presented for each location; the one on the left is for all persons, and that on the right pertains to adults age 20 or older.

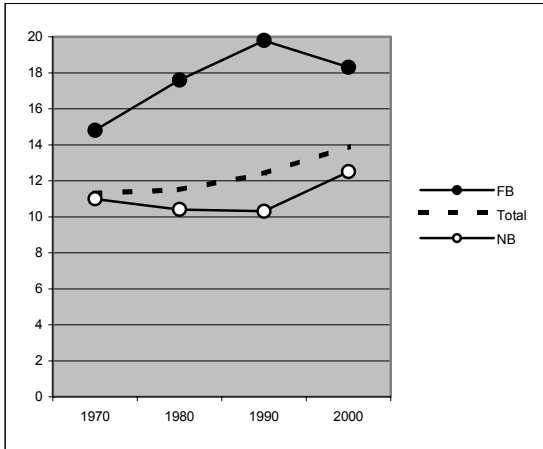
Sample data from the March 2000 Current Population Survey suggest that poverty in both California and the nation has declined among the foreign born, reversing the upward trend existing since 1970 or before. In California, total poverty continues to grow because the foreign-born residents still have poverty rates much higher than the native born and because the foreign born have continued to grow as a share of the total population.

In addition, the 2000 CPS showed higher poverty rates for the native born population than in the 2000 Census, despite the favorable economic conditions. Much of the upward swing in poverty for the native born may be attributable to the native-born children of immigrant parents. To partially correct for this effect, the graph on the right measures poverty only for adults who are age 20 or older. There we see the upturn among the California native born is reduced but not eliminated.

Exhibit 9
Long Term Trend in Poverty Rates
Among Foreign Born and Native Born Residents

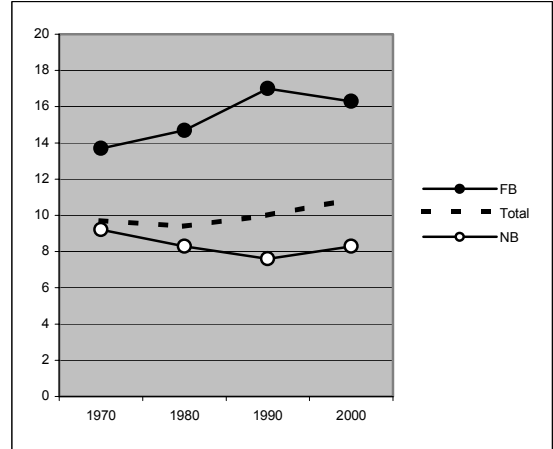
Poverty Rate for All Ages

California

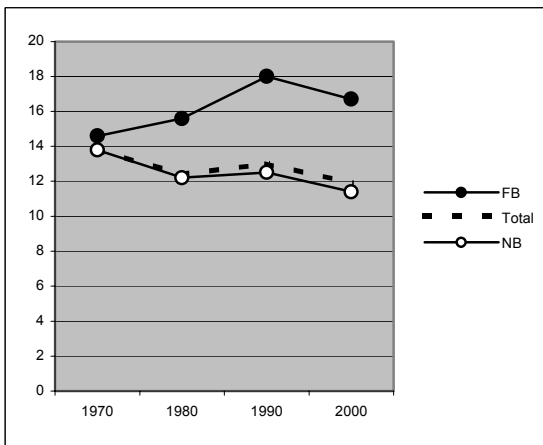


Poverty Rate for Ages 20 or Older

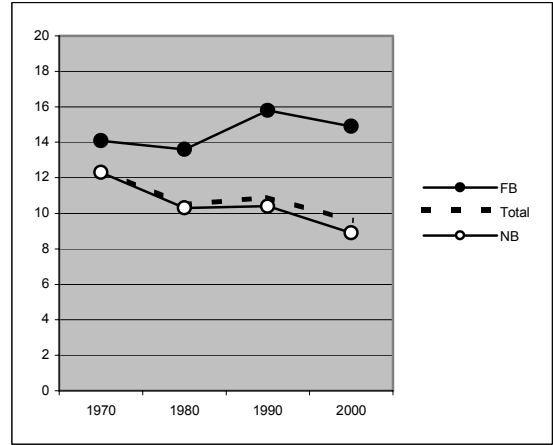
California



United States



United States



Source: Public use microdata files of the census of 1970, 1980, and 1990; Current Population Survey for 2000

By themselves, these CPS estimates indicate but do not conclusively demonstrate that the poverty rate among the foreign-born population has started to decline after rising for many years. These estimates are based on a relatively small sample of foreign-born households and are therefore subject to substantial sampling error. Also, we do not know if CPS and Census data on the foreign-born population are precisely comparable, because in 1990, the latest year for which we have census data on the foreign-born, the CPS did not include information on nativity. In view of these uncertainties it is not surprising that reports by the Census Bureau (Lollock 2001) and the Center for Immigration Studies (Camarota 2001) covering the data released in the March 2000 Current Population Survey have failed to note the significance of the apparent decline in immigrant poverty.

However, as the model presented below shows, the turnaround in poverty indicated by the CPS estimates is completely consistent with fundamental long-term trends in immigrant poverty that until now have been obscured by the rapid growth of the foreign-born population and its temporary dominance by newcomers.

Immigrant Poverty Trends by Cohort

Previous waves of new immigrant arrivals began their residence in the U.S. with high poverty rates, but they progressively lowered those rates as they increasingly adapted to life in the U.S. Now that more immigrants have advanced to this long-resident status, the total poverty rate of the foreign born is declining.

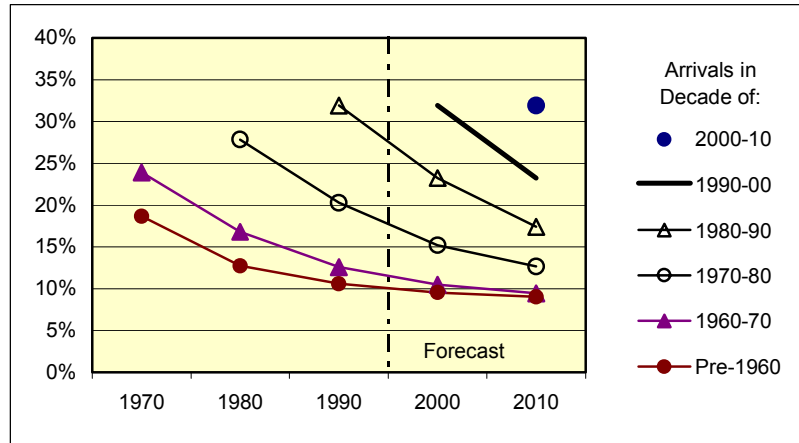
Exhibit 10 and 11 display the poverty trajectories for a succession of arrival cohorts that are observed across three censuses: 1970, 1980, and 1990. Also graphed are projections of those continued trajectories, as explained below.

As an example, the poverty rate of new Latino arrivals in 1960-70 was 23.9%, falling to 16.8% in 1980 and 12.6% in 1990. Among new arrivals in 1970-80, the Latino poverty rate was 27.8%, falling to 20.3% in 1990. For both these arrival cohorts poverty fell over 7 percentage points in a decade. Even steeper declines are observed among Asians or other immigrants.

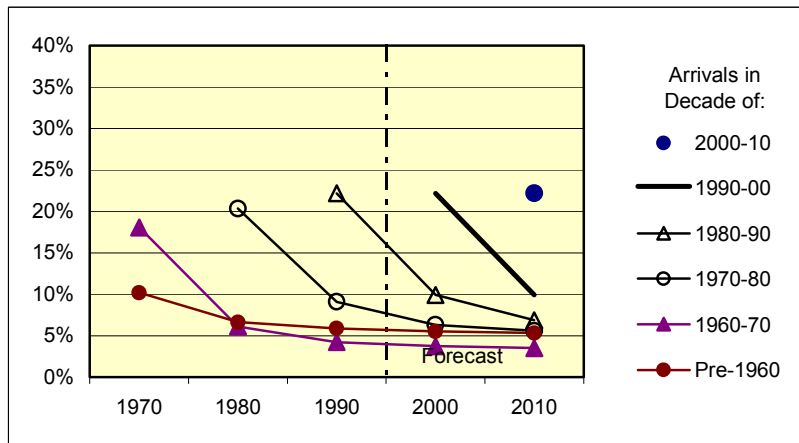
It deserves notice that new arrivals in recent decades have begun their U.S. residence with higher poverty rates than previous new arrivals. Among Latinos, poverty at arrival has shifted upward from 23.9% to 27.8% and then to 31.9% in 1990. (A smaller amount of upward shift is also found among Asian newcomers.) These recent new arrivals are likely to sustain higher poverty rates during their U.S. careers than did their predecessors at comparable durations of U.S. residence, but this difference is outweighed by the greater improvement experienced as they settle into U.S. life.

Exhibit 10
Poverty Rate Trajectories for Immigrants in California

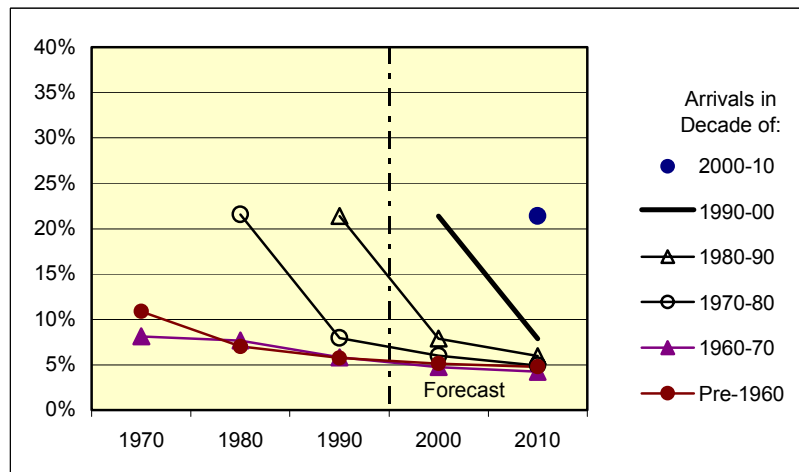
Latino Immigrants



Asian and Pacific Islander Immigrants



Other (White and Black) Immigrants



Source: USC Demographic Futures for California

Exhibit 11
Proportion of Population below the Poverty Line in Each Arrival Cohort
By Race-Ethnicity in California

Latino

Arrival Wave:	Observed			Forecast	
	1970	1980	1990	2000	2010
2000-10					0.319
1990-00				0.319	0.232
1980-90			0.319	0.232	0.174
1970-80		0.278	0.203	0.152	0.127
1960-70	0.239	0.168	0.126	0.105	0.094
Pre-1960	0.187	0.127	0.106	0.095	0.090
Total Foreign Born	0.217	0.227	0.250	0.229	0.213

Asian, Pacific Islander

Arrival Wave:	Observed			Forecast	
	1970	1980	1990	2000	2010
2000-10					0.222
1990-00				0.222	0.099
1980-90			0.222	0.099	0.069
1970-80		0.203	0.091	0.063	0.056
1960-70	0.181	0.061	0.042	0.038	0.035
Pre-1960	0.102	0.066	0.059	0.055	0.053
Total Foreign Born	0.144	0.161	0.162	0.134	0.118

Other (White/Black) Immigrants

Arrival Wave:	Observed			Forecast	
	1970	1980	1990	2000	2010
2000-10					0.214
1990-00				0.214	0.079
1980-90			0.214	0.079	0.060
1970-80		0.216	0.079	0.060	0.049
1960-70	0.081	0.077	0.058	0.048	0.042
Pre-1960	0.109	0.070	0.058	0.051	0.048
Total Foreign Born	0.104	0.108	0.111	0.123	0.119

Source: Decennial census of 1970, 1980, and 1990 (Public Use Microdata Samples); 2000 and 2010 are forecasts of the California Demographic Futures project.

Projection Model of Immigrant Poverty

The projection of immigrant poverty has two components: a) population projections by race-ethnicity, nativity and duration; and b) poverty rate projections for each cohort detailed by race-ethnicity, nativity and duration. The population projections were outlined in the preceding section. Here we describe the poverty rate projections and the result of applying those to the projected population by race-ethnicity, nativity, and duration.

The key assumption of the projection model is that poverty rates of today's new immigrants will take on the lower poverty rates of long-resident immigrants that are observed today. Rather than assume blindly that each cohort of immigrants will "jump" to the poverty level of earlier immigrants, the model takes each cohort's 1990 level of poverty as a starting point. We then project the future poverty of each cohort as a function of its 1990 poverty rate and of the changes observed in the poverty for preceding cohorts when they traveled through the same duration of residence range.

Represented, symbolically, let $P_{d, 1990}$ represent the poverty rate of an immigrant cohort with duration d in 1990. Ten years later, $P_{d+10, 2000}$ is derived from its earlier status, $P_{d, 1990}$, combined with the observed experience of the preceding cohort, $P_{d, 1980}$, as it gained 10 years added U.S. residence and passed to $P_{d+10, 1990}$. Our presumption is that cohorts will follow the path of proportionally declining poverty achieved by their predecessors. This is expressed as:

$$P_{d, 2000} = P_{d, 1990} * (P_{d+10, 1990} / P_{d, 1980})$$

While this method captures well cohort progression toward lowered poverty with increased duration, it cannot address two particular cohorts, the longest duration cohort and the newly arrived cohort. The longest duration cohort has no predecessor by which its future can be modeled. For immigrants that arrived before 1960, we project their future poverty as their initial poverty rate, plus one-half the amount of improvement evidenced within that cohort in the previous 10 years. In other words, we extrapolate the cohort's own rate of progress without borrowing information from its predecessors, but we assume conservatively that the progress will be slower than before.

In the case of newly arrived immigrants, we must project a starting level of poverty. The simple assumption is to hold constant the poverty rate observed for newly arrived immigrants in the preceding decade. However, as discussed above, there has been an upward trend in the initial poverty rates of new arrivals in recent decades. One could make a case that we should extrapolate upward the expected poverty level of newcomers in future decades. On the other hand, major changes in border enforcement have increased the costs of entering the U.S., and have likely raised the income threshold of immigrants who succeed in gaining U.S. entry. In this view, the initial poverty rate of newcomers may well have declined from what was observed in 1990. Given these two feasible scenarios, it seems most balanced to simply assume the entry-level poverty rate of immigrants will hold constant in future years. Once detailed data are released from the 2000 census (scheduled in 2002 and 2003), we should re-evaluate this assumption.

The results of projecting poverty rates by cohort are displayed in Exhibit 10. The downward slopes of the poverty trajectories are exactly the same in the forecast period as those observed in the 1980-90 period. As discussed previously, we have no reason to expect that current economic prosperity should enhance immigrant progress more than did the prosperity observed in the late 1980s when income data were recorded in the 1990 census. If anything, the deep recession of the early 1990s may have left lasting economic scars on immigrant cohorts that end-of-decade prosperity may not remove. Accordingly, it is just as likely that we have overestimated immigrant progress as it is that we have underestimated that progress.

When the projected poverty rates for each cohort and race-ethnicity are multiplied times the projected population, and the results are summed for all foreign-born residents, we arrive at a total expected poverty rate for California's foreign-born population. This result is best evaluated in relation to the poverty rates recorded in prior decades (as shown above). We summarize those findings here:

Exhibit 12

Percent Poverty Among California's Foreign-Born Residents

	Census			Projection	
	1970	1980	1990	2000	2010
Total Foreign Born	14.8%	17.6%	19.8%	18.2%	16.9%
Latino	21.7%	22.7%	25.0%	23.3%	21.8%
Asian and Pacific islander	14.4%	16.1%	16.2%	12.8%	10.9%
Other (white/black)	10.4%	10.8%	11.1%	11.8%	11.1%

Sensitivity Analysis

Our projection of immigrant poverty is dependent on key assumptions, as described above. Particular uncertainty surrounds the status of newly arrived immigrants since 1990. For those persons we will have no reliable information until the full results of the 2000 census are known (in 2003). The subsequent cohort arriving post-2000 is similarly unknown. For reasons explained above, we have assumed that these recent arrival cohorts will have poverty rates identical to those who were newly arrived prior to the 1990 census.

To test the effect of our assumptions regarding the new immigrant arrivals, sensitivity tests were performed to assess the consequences if poverty rates at time of entry do not hold constant as expected. One variation is to assume that new arrivals may have higher poverty in the future than previous newcomers, rising at half the rate of the preceding decade. A second variation tests the effect if the new arrivals have lower than assumed poverty at time of arrival.

Under our projection model, California poverty is expected to decline from 19.8% in 1990 to 18.2% in 2000. This amounts to a decline of 1.6 percentage points over the decade. Under the assumption of higher than expected poverty for arriving cohorts, the projected decline in the overall poverty rate of the foreign born would be reduced by one third (0.5 percentage points overall, and 0.7 percentage points among Latinos). Under the opposite assumption of lower than expected poverty for the new arrivals, the anticipated decline in the total poverty rate for the foreign born would be enhanced even further.

Overall, new arrivals have less and less effect on the overall status of the foreign born because they form an increasingly small share of the foreign born. The growing numbers who are long-resident immigrants are exerting mounting influence, and their steadily falling poverty rates outweigh the effects of newcomers.

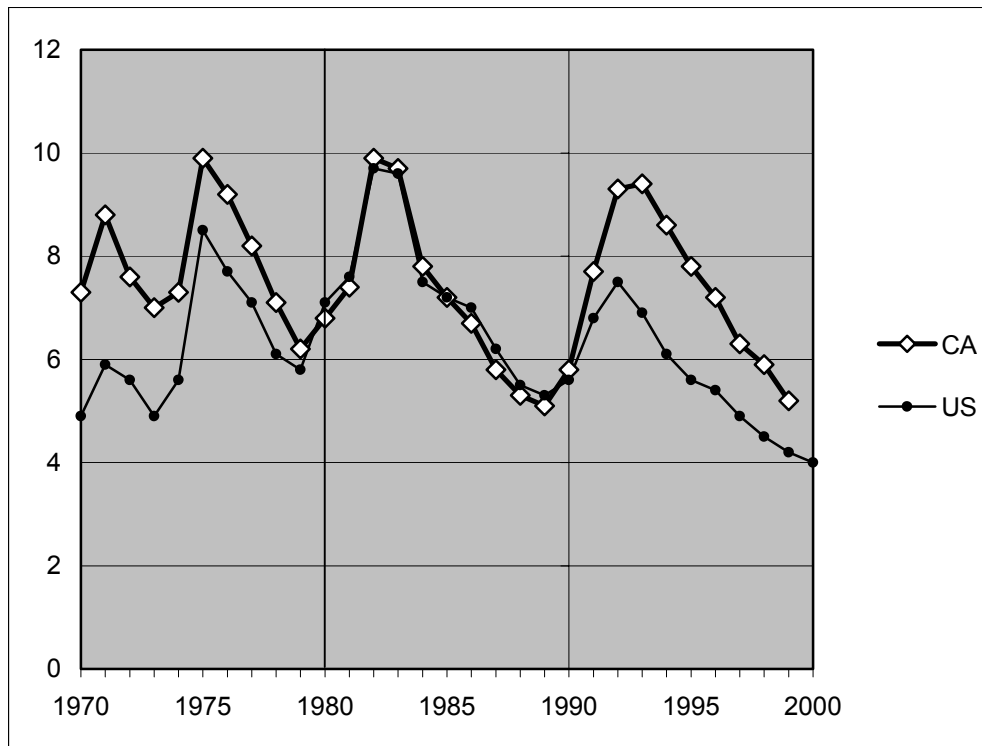
Trends Not Result of Economic Cycle

The recent economic boom is not the primary explanation for falling poverty among the foreign born. Improvement in economic conditions certainly has been dramatic in California since the recession of the early 1990s. This is indicated by the overall poverty rate as measured by the Current Population Survey, which has fallen in California from 18.2% in 1993 to 13.9% in 2000. However, the analysis here focuses on the long-term trend measured across multiple decades.

Fortunately for our purposes, each of the last several censuses, 1970, 1980, 1990, and now 2000, has been conducted near a peak of the economic cycle when unemployment was at a trough. This is clearly indicated by the trend in unemployment rates from 1970 through 2000 (Exhibit 13). Because there are so many working poor, the level of unemployment is much lower than the level of poverty. Nonetheless, the time trend in unemployment tracks closely with the time trend in poverty.

It bears emphasis that the poverty rate is calculated from income in the year prior to the April census data collection. Thus, the poverty rates in the 1980 and 1990 census were collected for the year when unemployment was at its very lowest in that cycle. In the most recent census, unemployment may have reached its lowest level in 2000, one year after the poverty measurement. In sum, the measurement of poverty in the census of each decade has been conducted by chance at the same favorable point in the economic cycle, and, as a result, comparisons across census decades amount to measurement of long-term trends rather than more temporary fluctuations.

Exhibit 13
Percent Unemployment in California and the United States



Source: 1970-2000 U.S. Bureau of Labor Statistics

Conclusion: Developing Demographic Futures for California

This report has introduced a significant new resource for policy and planning in California. Continued rapid growth in the state, combined with substantial demographic changes, requires that we develop better knowledge about the present and future residents in the state.

The foreign-born population has emerged as a major component deserving close policy attention. This is true, not simply because of the large numbers of immigrants, but also because of the wide variation in their needs and behaviors. Exhibit 1 illustrated how great are the differences in key policy areas between the native born and foreign born, and it revealed even wider differences between newcomer and long-resident immigrants.

The poverty projections presented in this report demonstrate the insights that can be gained by applying population projections detailed by nativity and immigrant duration. Our conclusions about the turnaround in fortunes of California's foreign born were enabled by application of this resource. For lack of this long-term prospective view, other analysts have been unable to properly interpret the simple snapshot of immigrant status revealed by the March 2000 Current Population Survey.

These population projections are a developing methodology and they can be refined in the future. At present, no government agency in California or the nation has prepared population projections detailed by immigrant duration. The present study highlights the enormous value gained from such a resource.

As the results of the 2000 census are progressively unveiled, we plan to upgrade and refine the projections presented here. In March 2001, data are scheduled for release that report race and Hispanic origin totals for states and localities. In summer 2001, age details will become known. But it will

not be until summer 2002 that we learn how many immigrants or how many poor people were counted by the 2000 census in California. Finally, it may not be until summer 2003 when we gain full access to the microdata records of the 2000 census that are required for the most detailed and sophisticated analysis.

Nonetheless, sufficient information already exists to get a glimpse of the future. It is imperative that we look forward into the new century and not simply study the past. Even the 2000 census data are already aging before they are even released. Effective planning and policy making in a rapidly changing state requires prospective analysis about a changing population.

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Appendix A

Historical and Projected Number of New Immigrants Each Decade

	1970 Census PUMS	1980 Census PUMS	1990 Census PUMS	2000 CPS Estimate	2000 USC Projection	2,010 USC Projection	2,020 USC Projection
CALIFORNIA							
New Arrivals	670,783	1,809,840	3,241,358	2,876,423	2,883,000	2,772,000	2,786,000
decade-to-decade ratio		2.698	1.791	0.887	0.889	0.962	1.041
UNITED STATES							
New Arrivals	2,883,363	5,579,880	8,623,747	11,205,920			
decade-to-decade ratio		1.935	1.546	1.299			
CALIFORNIA SHARE OF THE US TOTAL							
New Arrivals	23.3%	32.4%	37.6%	25.7%			
decade-to-decade change		+9.1%	+5.2%	-7.9%			

Note: New arrivals defined as entrants within decade prior to observation; excludes people born abroad to U.S. citizens or from outlying U.S. territories.

Source: Public Use Microdata Sample (PUMS), Current Population Survey (CPS), and USC California Demographic Futures

NATIONAL INPUT ASSUMPTIONS BY COUNTRY OF ORIGIN FOR PROJECTION AND ESTIMATION

Undocumented immigrants remain at current level estimated by the INS - 275,000 per year - with country of origin based on 1994 estimates of Robert Warren of the INS.

	English Speaking	Europe/ Former USSR	Mid. East N. Africa	Philippines	Other Asia	Mexico	Central America	Other America	Sub Saharan Africa	TOTAL
Annual Immigration	9,031	15,510	3,338	3,338	7,853	147,775	37,304	44,175	6,675	275,000

Legal admissions continue at mean level recorded in Fiscal Years 1991 - 1995. More recent large year-to-year fluctuations in the annual number of legal admissions show no clear trend from the early 1990s.

Country of origin distributions, of legally admitted immigrants, remain at level recorded in 1997 and 1998:

	English Speaking	Europe/ Former USSR	Mid. East N. Africa	Philippines	Other Asia	Mexico	Central America	Other America	Sub Saharan Africa	TOTAL
Percentage of Annual Immigration	3.5%	13.8%	5.4%	5.9%	29.8%	18.6%	5.8%	18.5%	4.8%	100.0%

Note: Countries of origin are grouped to facilitate 'mapping' into race-ethnic groups

Source: Immigration and Naturalization Service

Appendix B

The projections of population described in this report for the State of California by age, race, nativity, and period of arrival in the U.S. are available on the California Demographic Futures website www.usc.edu/schools/sppd/futures. On the web page is a link for each projection year containing the following eight columns of data:

- A. Year
- B. Nativity and, if foreign-born, Period of Arrival
- C. Age in years
- D. Anglo, non-Hispanic, White population
- E. Latino population
- F. Asian and Pacific Islander population
- G. Black, non-Hispanic, population
- H. Indian, non-Hispanic, population

For purposes of comparison actual census counts for 1980 and 1990 are also included in separate worksheets.

The methodology and assumptions on which the projections are based are described in this report. Further documentation of the methodology and comparisons of the projections with official projections from the U.S. Census and California Department of Finance are described in a California Demographic Futures Working Paper "Projecting the Population of California by Nativity and Duration of Residence in the U.S. to 2020," by John Pitkin, which is also available on the California Demographic Futures website.