

**Three Demographic Waves and the  
Transformation of the Los Angeles Region,  
1970-2000**

by

John Pitkin

October 2004

Working Paper PDRG04-07

Population Dynamics Research Group  
School of Policy, Planning, and Development  
University of Southern California

[www.usc.edu/schools/sppd/research/popdynamics](http://www.usc.edu/schools/sppd/research/popdynamics)

## **Abstract**

This paper uses 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. It examines the relationships between these demographic waves and describes 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 percent of its population, net, to the rest of the U.S., substantially more than 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 they do not represent the distinctive behaviors and impacts of large cohorts of foreign-born adults and their mostly native-born children. Since demography shapes much of human activity, the transformation poses a challenge both to demographic analysis and a wide spectrum of economic and planning models whose embedded assumptions about population may no longer be valid.

## I. Introduction

A wave of immigration arrived in the Los Angeles region in the 1970s, crested in 1989 and 1990, and subsided, but did not end, after 1991. This wave was accompanied by two related episodes, a long boom in births that peaked between 1989 and 1996 and a wave of domestic out-migration between 1991 and 1995. Together, these events have profoundly changed the population of Los Angeles and the outlook for its future.

Using decennial census and other data, this paper measures the scale and timing of these three demographic waves, examines the relationships between them, and describes their enormous cumulative impacts on the size and composition of the region's population through 2000. The census of 2000 provides a valuable benchmark. It not only contains the most definitive recent overall counts and data on the characteristics of the population, it also constitutes the most reliable basis for estimating the size, timing, and direction of the migrations that entered and left the region since the 1990 census. New estimates of the scale of these migration flows differ from the official annual estimates made during the decade. The new estimates show declines in the numbers of new immigrants arriving and show that substantially greater numbers of migrants left the region for other parts of the U.S. between 1990 and 2000 than was previously estimated.

By giving a more detailed and accurate account of the great changes that have occurred in Southern California's population, this paper is intended to contribute to the understanding of the dimensions and consequences of what can be described as a *demographic transformation* of Southern California and to inform the public conversation, among residents and policymakers as well as analysts, about the evolution of the metropolitan region, what it was and what it has become, and what it is becoming.

As a further contribution to our understanding of the outlook for the future of the region, the author has developed projections of the area's population to 2030 that are to be released by the California Demographic Futures project in January 2005. These projections reflect the rates and levels of immigration, fertility, and domestic migration that are reported in this paper for the late 1990s (1995 to 2000).

### *The Scope of Analysis*

The Los Angeles region is defined broadly here to include the five counties of the Los Angeles-Riverside-Orange County Consolidated Metropolitan Statistical Area, Los Angeles, Orange, Riverside, San Bernardino, and Ventura, plus Imperial County. This is the only region discussed in this paper, so there will be no ambiguity when I refer to it as *Los Angeles* or *Southern California*. The population of the six counties in the Census of 1970 was 9.96 million; in 2000 it had grown to 16.52 million.

Except as noted in the text, the terms *immigrant* and *immigration* refer to (1) any foreign-born person living in the U.S. for *any* period of time and (2) and the number of *immigrants* entering the U.S. during a *particular* period of time, respectively. These include both legal and most if not all of the undocumented immigrants who are omitted from the tallies of immigrants and refugees admitted by agencies of the U.S. government.

Thus, immigrants here include both foreign-born persons who have lived in the U.S. for many years as well as temporary residents such as foreign students and workers on H1-B visas. While it would be more accurate to exclude the latter group from counts of immigrants, the census does not separately identify this population.

## **II. Three Population Waves**

### **A. Immigration**

The surge of immigration to Los Angeles that started in the late 1960s rose rapidly in the late 1970s, reached peaks about 1980 and again, at a higher level, in 1989 and 1990, after which it fell off markedly. Although the region continues to receive large numbers of immigrants the annual inflow is down by almost a quarter from the 1987 to 1990 period, and its impact is now increasingly offset by out-migration of foreign-born population to other parts of the United States.

Immigration, population, and domestic migration (below) are measured here with decennial census public use microsample (PUMS) data, the 1 % sample for 1970 and 5 % samples for 1980, 1990, and 2000. (U.S. Census Bureau 1972, 1982, 1992, 2003)

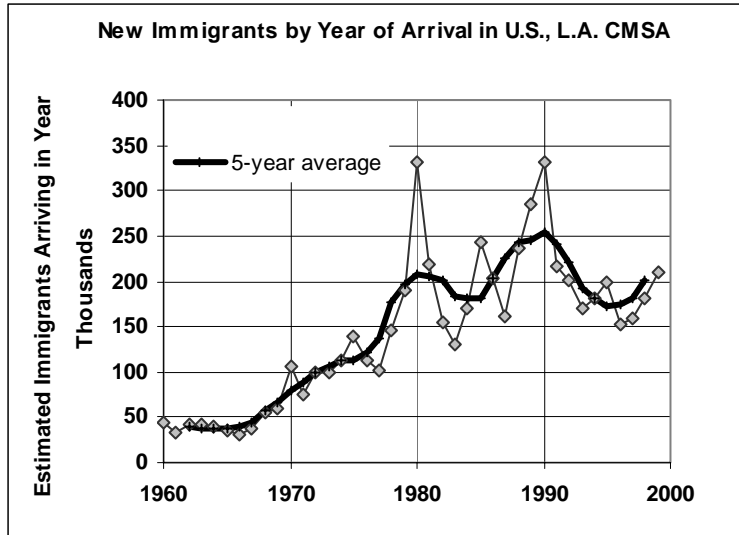
#### *1. Net growth of the foreign-born population*

The foreign-born population reported in the 2000 Census in the Los Angeles metropolitan region was 1.09 million more than in 1990. As large as this increase was, it was 40 percent less than the 1980 to 1990 census increase of 1.81 million and below even the 1.15 million increase between 1970 and 1980.

The increase in the coverage of the population between the 1990 and 2000 censuses inflates census-to-census measures of growth. As the result of fewer persons missed and an increase in persons who were double-counted, the *net undercount* of the population in the 2000 Census is estimated to have been substantially smaller than in 1990. There is no authoritative estimate of the increase in coverage of the foreign-born population in Southern California. However, an increase of 5 percent would be consistent with estimates for other, comparable population groups.<sup>i</sup> (Notes on the methods and assumptions of the estimates appear at the end of the text.) This would imply that the actual increase in the (full count) foreign-born population was not the reported increase of 1.09 million but closer to .90 million, half of the 1980 to 1990 increase.

#### *2. New Immigrant Arrivals*

The net increase of the foreign-born population is at best an approximate indication of the number of immigrants who arrive in any particular interval of time. For the years before the latest census, the most reliable source of data on the annual number of new immigrants is the census count of foreign-born residents who report that they came to live in the United States in a particular year.<sup>ii,iii</sup> The first chart displays the data on foreign-born persons by year of arrival in the censuses from 1970 to 2000.<sup>iv</sup> These estimates



(plotted as diamonds in the graph) are the number of immigrants who actually arrived in the region in each year, regardless of how long they stayed.

Note the sharp peaks of arrivals at the end of each decade and the lesser peaks in mid-decade years. These result in large part from rounding of the reported years of arrival reported by census respondents. We know this because the peaks

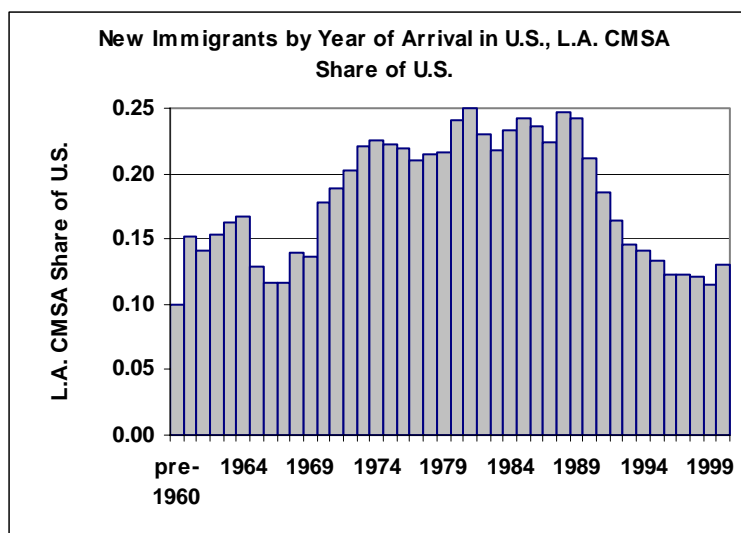
in 1975, 1980, 1985, and 1995 do not appear in data on the number of immigrants officially admitted, although the peak in 1990 does.<sup>v</sup> To smooth these spurious fluctuations, five-year moving annual average numbers of arrivals are also plotted (heavy black line).<sup>vi</sup>

The 1988-1990 peak in the smoothed immigration series immediately followed the Immigration Reform and Control Act of 1986 (IRCA), under which 2.6 million previously undocumented workers were admitted as legal residents of the U.S., 85 percent from Mexico. Once legalized, these workers became eligible to bring spouses and children into the U.S. under the family reunification provisions of immigration law. Thus, the high rate of immigration in the 1988-1990 period is the result first of this “legalization” and second, and more importantly, the subsequent influx of family members.<sup>vii</sup>

When flows for different periods are compared, they can be affected by differences in the numbers of temporary residents, emigration, and biases in the reported year of arrival. However, when flows for periods exactly a decade apart are compared, these effects are minimized. The number of arrivers in Los Angeles in 1995-1996 as reported in 2000 was down by 24.5 percent from 1985-1986 reported in 1990, and the number in 1997-2000 was down 17.1 percent from 1987-1990. When adjusted for the estimated increase in population coverage between the 1990 and 2000 censuses, the declines were more than 25 and more than 20 percent, respectively.

### 3. Los Angeles Share of Immigration to U.S.

The wave of immigration to Los Angeles coincided with a large increase in the share of national immigration that came to the region after 1968. In 1971 the share first exceeded 20 percent of the U.S. arrivals. It then fluctuated between 20 and 25 percent for 19 years, with highs in 1973, 1980, 1984, and 1989. Later the region’s share fell steeply between 1989 and 1992; during the rest of the 1990s it averaged just over half of the 1980s.



*These different measures, net change in foreign-born population, number of new arrivals, and share of national immigrant arrivals, show a similar picture. Los Angeles became the pre-eminent destination for immigration to the U.S. during the 1970s and maintained this position through the 1980s. Since 1993 it has no longer been the main destination for U.S. immigration but remains a major gateway.*

## B. Domestic out-migration.

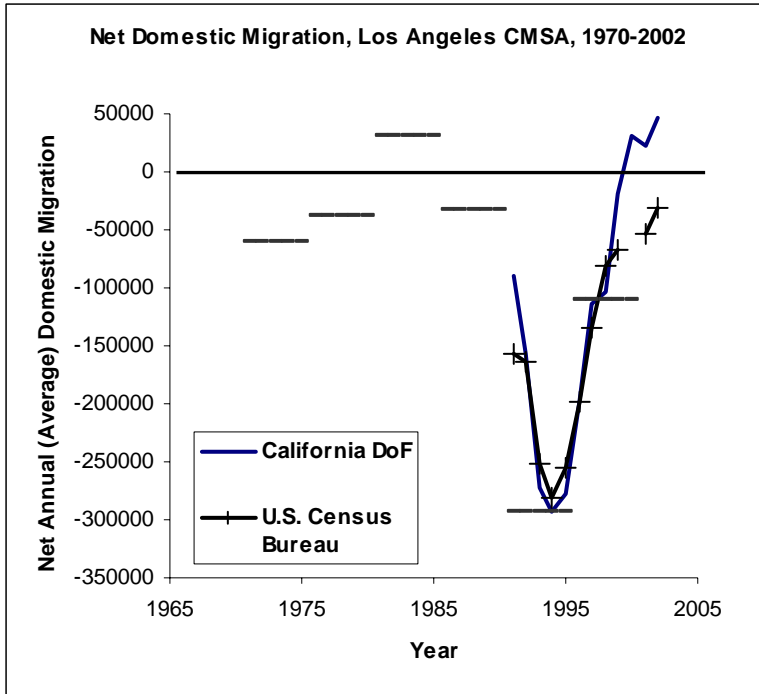
For most of the 20<sup>th</sup> century Los Angeles was also a destination for domestic migration from the rest of the U.S. but by the beginning of the 1970s the region was sending more migrants to other parts of the country than it was receiving.

Although official annual estimates of domestic migration are available starting after 1990, decennial census data for five-year intervals are more reliable and can be constructed from 1970 forward. To do this, net domestic migration is first estimated for the ten years intervals between censuses<sup>viii</sup>; next, net migration is calculated for the second half of each decade based on the census question on place of residence in mid-decade; and then the net migration for the first half of each decade is calculated as the difference between the estimates for the decade and the second half.

### 2. Out-migration in the 1990s

These census-based measures show an increase in net domestic migration between the first half of the 1970s, when there was an average annual outflow of 60 thousand people to the rest of the U.S., and the early 1980s, when there was a net inflow to the region. Domestic migration started to fall in the late 1980s and then plunged in 1990-1995 to a net loss of just under 300 thousand *per year* between 1990 and 1995. This wave of out-migration subsided to an average net outflow of 118 thousand a year between 1995 and 2000.

Although the current, annual migration estimates appear to have missed many migrants in the 1990s, they remain the most reliable measures of the timing of the migration. Both show that out-migration reached a peak in the years 1993 to 1995.



According to the census-based measures, the Los Angeles region lost a total of 2.05 million domestic migrants, net, between 1990 and 2000, including 1.46 million between 1990 and 1995. This estimate of 2.05 million net domestic out-migrants for 1990 to 2000 exceeds the earlier current estimates of the California Department of Finance (DoF), 1.49 million, and the U.S. Census Bureau(1999), 1.65 million,<sup>ix</sup> by .55 and .40 million, respectively. For the 1990 to 1995 period alone, the 1.46 million estimated domestic outflow

is .37 million (DoF) and .35 million (Census Bureau) higher than the earlier estimates.

## 2. Out-migration higher than previous estimates

Although the two official estimates more nearly agree with each other than with the census-based estimates, there is reason to doubt their accuracy for Southern California in the 1990 to 1995 period because there were large changes in the composition of migration that appear to have caused a downward bias. These changes, only revealed by more complete data from the 2000 census, were large net outflows of the foreign-born population (479 thousand) and children under age 10 (144 thousand) over five years. These migration flows were up 487 thousand and 88 thousand respectively from the preceding five-year period.

The DoF estimates are based on counts of new and surrendered driver's licenses and changes of address reported by the California Department of Motor Vehicles. These current data could have missed many of the foreign-born out-migrants because this population includes a both a larger share of non-drivers than the native-born<sup>x</sup> and a notoriously high proportion of unlicensed drivers.<sup>xi</sup> Also, DoF's use of number of children-per-adult ratios to estimate migration by children would cause any underestimate of foreign-born adult migrants to result in an underestimate of (mostly native-born) migration.<sup>xii</sup>

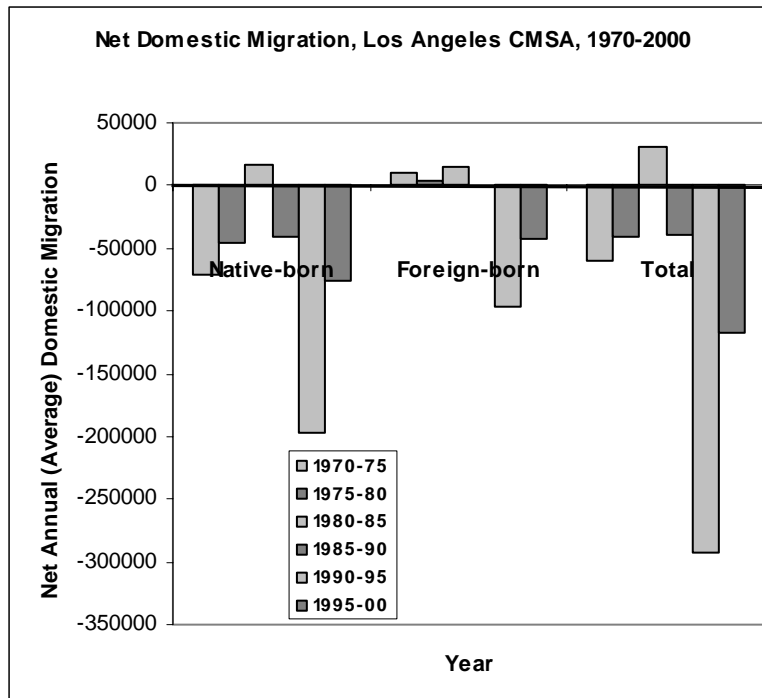
The Census Bureau estimates domestic migration flows from data on the addresses from counts of matched federal income tax returns for succeeding years. However, there is reason to believe that many foreign-born migrants could be missed. There are no data to support estimates of the proportion of the foreign-born population that file income tax

returns, but the assumptions of the Social Security Advisory Board (2003) imply that a large fraction of the undocumented immigrant population does not file returns, because they do not pay taxes, and another large fraction file returns that are unlikely to be matched from year to year, because they pay into the system but don't receive benefits.<sup>xiii</sup> Further, these estimates of non-filers could be on the low side in the early 1990s, since a high proportion of immigrants in the Los Angeles region had arrived so recently that they would not have worked long enough to have filed a tax return before moving out. If the Social Security Advisory Board assumption is even approximately accurate, the Census Bureau's estimates would miss large fractions of both foreign-born adult out-migrants and their children. The children, many of whom are native-born, would have been missed because the Census Bureau's estimates are based on the number of dependents reported on the tax returns of movers.

Since it is likely that there were substantial downward biases in the DoF's and Census Bureau's estimates of domestic migration from Los Angeles in the 1990-1995 period, the higher estimates from the decennial census, which more nearly includes the entire population, should be considered more accurate.

### 3. Out-migration of foreign-born after 1990

For the first time, after 1990 there was substantial out-migration of the foreign-born population to other parts of the U.S. Until then, almost all of the variation in net



migration occurred among the native-born population, with significant numbers leaving during three 5-year intervals. The largest flow of foreign-born population during these periods was immigration of just 15 thousand a year on average between 1980 and 1985; in 1975-1980 and again in 1985-1990 net domestic migration of the foreign-born was negligible. After 1990, by contrast, there was substantial net out-migration of the foreign-born population from

Southern California and there were *changes* in the level of out-migration in the same direction as and approximately proportional to the changes in native-born domestic migration between the early and late 1990s. Between 1990 and 1995 alone, 479 thousand

more foreign-born domestic migrants left the Los Angeles region than came and a net of 209 thousand left the area in the following five years.

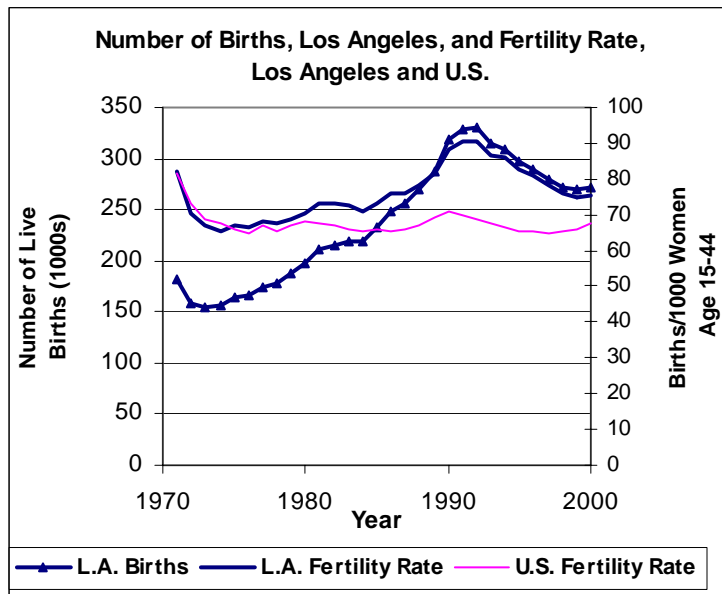
A comparison of two half-decades, the early 1970s and late 1990s, indicates how the domestic migration of the foreign-born population changed. From 1970 to 1975, 355 thousand more native-born persons left the region than came (4.0 percent of the native-born population in the region), while 54 thousand more foreign-born domestic migrants came than left (3.7 percent of the foreign-born population in the region). In 1995-2000, the net loss of native-born migrants to the rest of the U.S. was slightly higher than in the earlier period (381 thousand, or 3.4 percent of the native-born population), but now 209 thousand more foreign-born migrants left the region than came (4.3 percent of the foreign-born population). In aggregate, the locational behavior of the foreign-born population, which had favored Los Angeles over other regions in the earlier period, was now similar to that of the native-born population.

### C. Births and Fertility Rates

A long wave in the number of births recorded in the Los Angeles region roughly paralleled the wave of immigration. This wave started in the early 1970s and reached its peak almost exactly 20 years later. From a low of 155 thousand in 1973, the annual numbers of births rose steadily to 220 thousand in 1984 and then much more rapidly to 330 thousand in the peak year of 1992, after which the number fell each year to 269 thousand in 1999. (Numbers of recorded births are shown on graph by pyramids.)

Immigration propelled a rise in births in two ways. First, it swelled the number of women of childbearing age.

In each of the last three censuses, women age 15 to 44 accounted for between 29 and 30 percent of new immigrants; as a result, by 2000, 40 percent of the 15 to 44 year-old women in the Los Angeles region were foreign-born, up from 12 percent in 1970. This effect can be seen in the comparison between the growth in the number of live births to the crude fertility rate, the number of births per thousand women age 15 to 44, shown as a heavy solid in the graph that refers to the second y-axis. From 1974, when the fertility rate ended its post-Great Baby Boom decline, to 1992, the fertility rate and total numbers of births both rose, but the increase in annual births (112 percent) far surpassed the rise in



the fertility rate (38 percent). This implies that the growth of the population of potential mothers exceeded the increases in the average number of children per woman.

Second, the Los Angeles baby boom was also fueled by the wave of immigration, because foreign-born women, especially Latinas, have had substantially higher fertility rates than their native-born peers. This was documented by Hill and Johnson (2002) who report in their study of fertility patterns in California that the total fertility rate for foreign-born women in the whole state in 1998 was 2.8, above the 1.9 children for native-born women and that there had been a large though not constant gap since at least 1982.<sup>xiv</sup> Hill and Johnson find a wide variation in the rates for foreign-born Latinas (from 3.2 to 4.5 children per woman) but stability over time, at different levels, for native-born Latinas, and both native- and foreign-born White, Black, and Asian or Pacific Islander women.<sup>xv</sup> (The temporal variation for foreign-born Hispanics is discussed further, below.)

Thus, when the growth in the foreign-born population was most rapid, just before 1990, and when the flow of immigrants included a large share of women admitted as spouses of men who had recently been legalized under the provisions of IRCA, the growth in the foreign-born share of the population of child-bearing women caused the overall fertility rate to rise.

The post-1992 decline in the crude fertility rate in Los Angeles was due in part to the slower pace of immigration but also reflects a significant decline in the rate of fertility among foreign-born women.

This rise and fall in fertility rates was peculiar to California. During the period, the birth rate for the U.S. fluctuated in a much narrower range between 65.0 and 70.9 per 1,000 women. In 1979 the rate for the Los Angeles metropolitan area, the largest region in the California, was just two percent above the national rate. By 1992 it was almost a third higher and in 2000 had fallen back to 12 percent above the national rate.

### **III. A Connection Between Immigration and Out-Migration?**

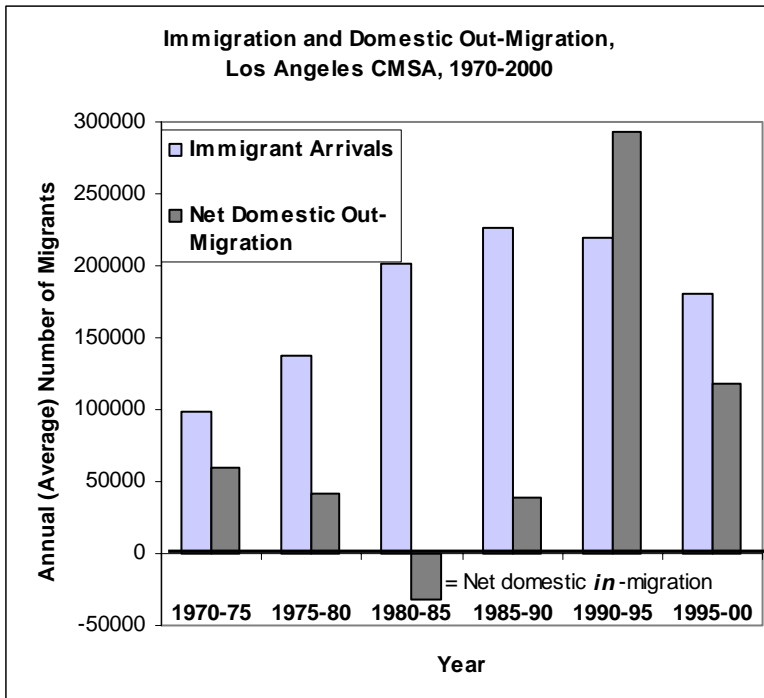
The timing, on both the up and down side, and composition of the wave of births in Los Angeles indicate that it was in large measure a consequence of the wave of immigration. Although there are reasons to believe, and Frey (1996) and others have argued, that the post-1990 surge of domestic out-migration was also a consequence of the immigration wave, the relationship is less immediately apparent in the aggregate migration data.

#### **A. Timing**

While the broad temporal patterns of immigration and number of births in Southern California are notably similar, the timing and magnitude of domestic migration are not.

The numbers of immigrant arrivals and **births** both trended up, starting in 1968 for immigration and 1975 for births, to peak two years apart, in 1990 and 1992, declined in the early 1990s, and leveled off in the late 1990s. Even the temporary maximum in immigration around 1980 is echoed, albeit weakly, in the births series. The only sharp divergence between the two series, the 1971-1972 drop and later start of growth in births, is attributable to the rapid decline in fertility rates at the end of the Great Baby Boom.

By contrast, the temporal pattern of **domestic out-migration** from Los Angeles does not parallel that of immigration. From the early 1970s through 1970-1975, the trend of net out-migration was *opposite* that of immigration: the former *fell* by 92 thousand per year



between the early 1970s and the early 1980s, i.e. domestic in-migration rose by 92 thousand a year, while immigration rose by 103 thousand per year over the same time. (See graph and note that the scale of domestic migration reverses the convention of plotting in-migration as positive.) In the four half-decades starting from 1980, average annual immigration to Los Angeles varied in a relatively narrow range from 181 to 226 thousand per year (plus or minus 11 percent) while domestic out-migration ranged from minus 32 thousand a year in

1980-1985 to 292 thousand a year in 1990-1995.<sup>xvi</sup>

Economic conditions in Southern California, growth in jobs and earnings, are strongly (negatively) correlated with domestic migration. This effect goes far to explain the inconsistent relationship between immigration and domestic out-migration. Robust growth in regional employment (plus 3.3 percent a year on average 1975-1985) coupled with stable average pay per employee relative to the average of 17 large U.S. CMSAs<sup>xvii</sup> was most probably the main cause of the 1970-1985 turnaround in net domestic migration for the region. Similarly, the 1990-1995 loss of jobs (458 thousand) and decline of average payroll per employee (down 5 % relative to the mean of 17 large CMSAs) was an important factor in the migration of the net 1.46 million people who left the region for elsewhere in the U.S. between 1990 and 1995. It is quite possible that earlier boom and later bust in the regional economy were also major causes of the 1970-1973 rise and 1989-1993 fall in the Los Angeles region's share of immigration to the

U.S. Such pro-cyclical effects on both foreign and domestic migration streams work in the opposite direction of a possible immigration “push.”<sup>xviii</sup>

The clearest indication of temporal correlation between an immigration “push” driving domestic out-migration from Los Angeles is in the California DoF and Census Bureau’s annual estimates of domestic migration after 1990, which show a major peak in out-migration four to five years after the 1989-1990 peak in the number of new immigrants. Proving that this temporal correlation is causal would require (1) showing that the effect has a time lag of 4 to 5 years and (2) determining how much of the out-migration was caused by the regional economic recession, but these determinations are beyond the scope of this paper.

## **B. Composition of domestic migration**

Stronger evidence of a connection between immigration and domestic out-migration from the Los Angeles region is found in the composition of domestic migration, specifically the emergence, apparently abrupt, after 1990 of out-migration by the foreign-born, which rose from an average of minus one thousand a year (net in-migration) in 1985-1990 to 99 thousand a year in 1990-1995.

Of course, a substantial foreign-born population had to have settled in the region before they could depart to the rest of the U.S. In this sense, there is a direct connection between earlier immigration and the net out-migration of 688 thousand foreign-born persons between 1990 and 2000. But there remains the question of the reasons for the change new pattern of behavior.

## **C. Possible causes of out-migration by foreign-born**

Four different though mutually compatible causes for the shift need to be considered.

1. The **economic recession** and loss of 573 thousand jobs<sup>xix</sup> in the region between 1990 and 1994 was the most severe contraction since the start of the wave of immigration.
2. There is a strong tendency for migrants to locate in areas where earlier immigrants from the same country or region have settled and who can provide a network of support for job referrals, housing, and other assistance. According to this explanation, in around 1990 such **networks of immigrants reached the size needed to be effective** in regions of the U.S. where they had not existed before and attracted an exodus of earlier immigrants from Los Angeles. Such a process also helps to explain the fall in the region’s share of new immigrants to the U.S. after 1990.
3. The continued growth of the Los Angeles region’s foreign-born population could have exceeded a relatively **fixed demand for labor** in industries and occupations dominated by immigrants. It is hypothesized that this happened around 1990 and that, as more immigrants continued to arrive in the region, competition for a limited supply of jobs

prompted increased numbers of both settled and new immigrants to leave to seek jobs in the rest of the U.S.<sup>xx</sup>

4. According to recent empirical research on metropolitan housing markets, unanticipated population growth from immigration, *e.g.*, the 1987-1990 post IRCA influx, coupled with a supply of housing units that is fixed in the short run results in substantially higher apartment rents (Saiz 2003). According to accepted urban location theory (Alonso 1964, Muth 1966), housing prices in a metropolitan region rise as population size increases, because expansion at the (physical) boundary of the area raises the premiums in value for all houses located more centrally. For these reasons, it is expected that immigration to Los Angeles has caused housing prices and rents to rise, especially those paid by foreign-born households. The resulting **rise in the ratio of rents to wages** may, as Light (2004) has proposed, have led increasing numbers of the foreign-born to leave for areas where the rent-to-wage ratio is more favorable.

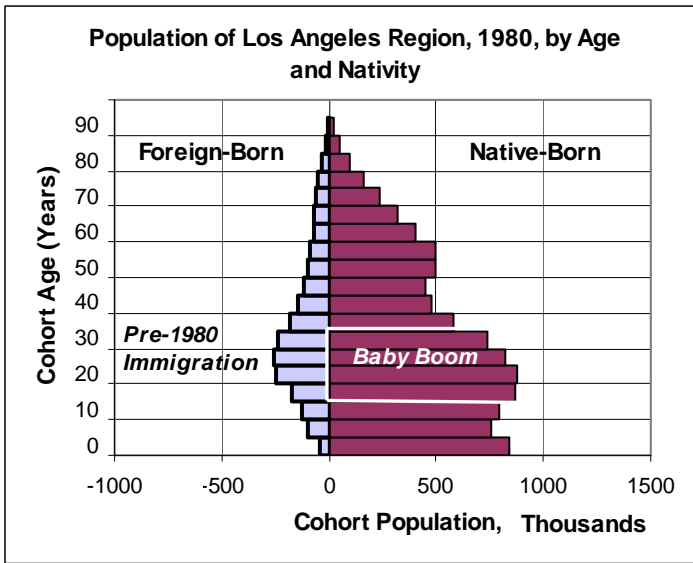
There are no necessary contradictions among these alternative explanations for net out-migration of the foreign-born population. In fact, some are complementary, involving a combination of housing and labor market factors. Indeed, all of these factors may have contributed to the post-1990 out-migration of foreign-born from Los Angeles. To the extent that labor and housing market saturation played a role, the new domestic out-migration would be a direct consequence of immigration to the region.

Moreover, if such links do exist, they would also indicate that immigration has affected out-migration of the native-born population. Although segmentation in labor and housing markets means that the impacts from immigration would be greatest the foreign-born population, but it is possible that they would also be felt by native-born minority populations and workers with limited skills. Indeed it is possible that the out-migration response of native-born population would have started earlier, before even 1990, because this population has more U.S.-specific social capital, broader networks of support, and more options for moving within the U.S.

The causes of domestic migration from Southern California merit further investigation, but sorting out their impacts is beyond the scope of this paper. Rather, I set this question aside and now turn to describe the concrete demographic impacts of all three population waves through the year 2000. The impacts, whatever their ultimate cause, have been substantial.

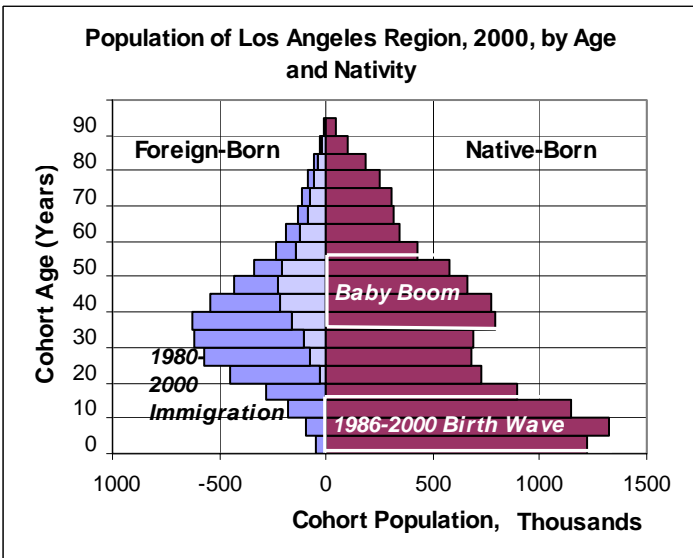
#### **IV. A New Demographic Context**

As the result of the waves of immigration, births, and domestic out-migration, the composition of the Los Angeles region's population has dramatically shifted, transforming the demographic context for planning and a wide range of future-oriented decisions. Because of these changes, the nativity and race-ethnic mix of the area's population now includes larger shares of foreign-born, Latino, and Asian and Pacific Island populations. In 2000, 30.6 percent of the population was born outside of the U.S., 40.4 percent were Latino, and 11.0 percent were Asian or Pacific Islander, non-Hispanic.

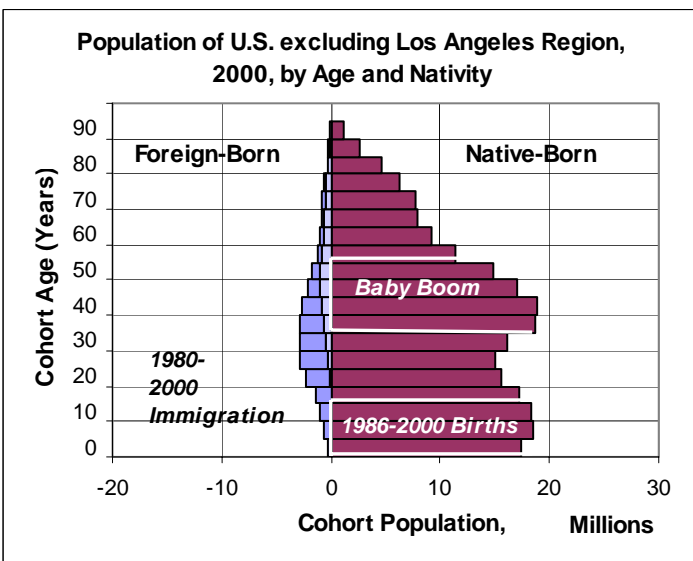


However, it is the transformation of the generational structure and nativity of the population that may have clearer implications for the future of the region.

The extent of this transformation can be seen by comparing the age and nativity composition of the population of Southern California in 2000, first, with what it was twenty years earlier, in 1980, and, second, with the rest of the country in 2000.



In 1980, the cohorts born in the U.S. between 1946 and 1965, the Baby Boomers, comprised the largest generation in the Los Angeles region, larger than the preceding Depression era or the following “Baby Bust” generations. (Figure, top panel, dark-shaded bars on right.) At this time, the wave of immigration was a relatively new phenomenon and the foreign-born population was still a small part of the total. (Light-shaded bars on left of top panel.) In 2000, the Baby-Boom generation still retained its prominence relative to the preceding and succeeding generations but was now outnumbered by two other, larger, generations, the one born in the U.S. between 1986 and 2000 and the foreign-born cohort that had arrived since 1980. (Compare middle and top panels of figure.)



The extent of the region’s transformation is also apparent when the region’s age and nativity composition in 2000 is

compared with the rest of the U.S. in the same year (bottom panel in figure). In the U.S., the Baby Boom remained the largest generation, larger than the 1986-2000 births of the “Echo Boom” (mostly the children of the Baby Boomers) and the much smaller cohort of immigrants who entered the U.S. after 1980.

The metaphor of the “pig in the python” continues to apply to the national age structure: The Baby Boom was the largest generation in 2000, as it had been in 1980 and before that in 1960; it had simply progressed through the “python” of the age pyramid over time. If the metaphor can be applied at all to the age structure of Los Angeles, it must be modified: This python has had a couple of large meals since the “pig.”

No longer can the region’s population be viewed as a simple microcosm of the nation with minor variations, as it could in 1980 and before. This transformation has myriad consequences for the region that voters and all residents, public officials, business people, leaders, and planners need to understand. The starting point for understanding these consequences should be a recognition that the size, composition, and structure of the region’s population makes the region, much like New York, a case unto itself, as different from other U.S. metropolitan areas as it is from the Los Angeles of 1980.

National models or models of a “typical” metropolitan area no longer apply, because they do not represent the distinctive behaviors and impacts of large cohorts of foreign-born adults and their mostly native-born children. Since demography shapes so much of human activity, the challenge is not only to demographic analysis but also to the whole spectrum of economic and planning theories and models that rely, either explicitly or implicitly, on “rules of thumb” about population that may no longer be valid.

The challenge can be thought of as one brought by sharp generational discontinuities resulting from *three* “large” generations. Such discontinuities occurred when the Baby Boom generation entered the labor force and housing market and are widely anticipated to occur when it retires from the work force. They have also occurred when recent immigrants to Los Angeles gave birth to their own baby boom and rather suddenly began to migrate from the region to other regions of the U.S. in large numbers. More large discontinuities in the behavior of this cohort as well as that of the “Los Angeles baby boom” generation can be anticipated. The challenge is, insofar as possible, to foresee them.

## **V. Implications**

What it would it take for there to be another surge of immigration to the Los Angeles region as large as came in 1988-1990?

In order for immigration to the region to rise substantially from recent levels, one of two things would have to occur. Either immigration to the U.S. or the fraction of these immigrants coming to Los Angeles would have increase.

The current direction of immigration policy is being driven by concerns about security risks, evidenced by the consolidation of the Immigration and Naturalization Service into the Department of Homeland Security; Congress has not acted on the recent presidential proposal for another amnesty program. Enforcement of existing regulations on immigration is being tightened and new ones are being put in place. This policy climate seems unlikely to lead to large increases in national immigration in the near future.

After having been above 20 percent for 19 years (1972-1990), the share of new U.S. immigrants that locate in Los Angeles remained below 14 percent from 1994 through 2000. The stability of this ratio over a long period of time indicates that there is considerable inertia in the geographic distribution of new immigrants. The same factors of “cumulative causation” that have kept immigration high despite increased enforcement efforts and more restrictive policies seem to have led to this stable geographic distribution: established networks of immigrants to support new immigrants and chain migration. Now that Los Angeles’s dominance as the main destination for new immigrants from major sending countries has been broken, with powerful assistance by the regional economic recession of 1991-1994, it is very unlikely to be restored.

For these reasons, the possibility of a large increase in immigration to Southern California in the near future should be considered remote. Even in the event of a second immigration amnesty program, its effect on the region would probably be much smaller than that of the 1986 IRCA program, which temporarily increased the number of immigrants to the U.S. but did not cause Los Angeles’s share of U.S. immigration to rise.

This immigration wave was closely linked to the wave of births in the region during the same period. Without a resurgence of immigration, future trends in the number of births will increasingly be determined by the size and fertility rates of the very large cohort of U.S.-born girls that will reach childbearing age in the next ten years.

Over the three decades covered in this 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 the 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 are likely to continue in the future.

## References

- Alonso, William. 1964. *Location and Land Use*. Cambridge: Harvard University Press.
- Borjas, George J. 1994. The Economics of Immigration. *Journal of Economic Literature*. (26) 1667-717.
- California Department of Motor Vehicles. 1995. Legislative Findings, 14607.4.
- DiPasquale, Denise, and William Wheaton. 1994. Housing Market Dynamics and the Future of Housing Prices. *Journal of Urban Economics*. (35) 1-27.
- Frey, William H. 1996. Immigration, Domestic Migration, and Demographic Balkanization in America: New Evidence for the 1990s. *Population and Development Review* (22) 741-63.
- Hill, Laura E., and Hans P. Johnson. 2002. Understanding the Future of California's Fertility: The Role of Immigrants. Public Policy Institute of California.
- Kritz, Mary M., and Douglas T. Gurak. 2001. The Impact of Immigration on the Internal Migration of Natives and Immigrants. *Demography* 38 (1): 133-45.
- Martin, Philip, and Elizabeth Midgley. 2003. Immigration: Shaping and Reshaping America. *Population Bulletin* 58 (2). Population Reference Bureau.
- Morrison, Peter A., Thomas M. Bryan, and David A. Swanson. 2004. Internal Migration and Short-Distance Mobility chapter in Jacob S. Siegel and David A. Swanson (eds.) *The Methods and Materials of Demography* (Second Edition). Elsevier Academic Press.
- Muth, Richard. 1969. *Cities and Housing*. University of Chicago Press.
- Saiz, Albert. 2003. Immigration and Housing Rents in American Cities. Federal Reserve Bank of Philadelphia Working Paper No. 03-12.
- Social Security Advisory Board. 2003. Technical Panel on Assumptions and Methods (2003). Report to the Social Security Advisory Board.
- U.S. Census Bureau. 1972. Census of Population and Housing, 1970: Public Use Microdata Samples [machine-readable data file][1 % sample of 5 % sample questionnaires, U.S. county group file] data downloaded from Steven Ruggles, Matthew Sobek, Trent Alexander, Catherine A. Fitch, Ronald Goeken, Patricia Kelly Hall, Miriam King, and Chad Ronnander. Integrated Public Use Microdata Series: Version 3.0 [Machine-readable database]. Minneapolis, MN: Minnesota Population Center [producer and distributor], 2004. URL: <http://www.ipums.org>.

- U.S. Census Bureau. 1982. Census of Population and Housing, 1980: Public Use Microdata Samples [machine-readable data file][5 % A sample of U.S.].
- U.S. Census Bureau. 1992. Census of Population and Housing, 1990: Public Use Microdata Samples [machine-readable data file][5 % sample of U.S.].
- U.S. Census Bureau. 1999. State Population Estimates and Demographic Components of Population Change: Annual Time Series, April 1, 1990 to July 1, 1999, internet release of 12/29/1999.
- U.S. Census Bureau. 2003. Census 2000: Public Use Microdata Sample (PUMS), United States [machine-readable data file][5 % sample].
- U.S. Census Bureau. 2003a. Net Undercount and Undercount Rate for U.S. and States (1990). Document downloaded from [www.census.gov](http://www.census.gov) 7/10/03.
- U.S. Census Bureau. 2003b. DSSD A.C.E. Revision II Memorandum Series #PP-60. A.C.E. Revision II. Adjusted Data for States, Counties, and Places. April 9, 2003. Document downloaded from [www.census.gov](http://www.census.gov) 7/10/03.
- U.S. Census Bureau. 2003c. Decision on Intercensal Population Estimates. March 12, 2003. Document downloaded from [www.census.gov](http://www.census.gov) 7/10/03.
- U.S. Immigration and Naturalization Service. Various years. *Statistical Yearbook of the Immigration and Naturalization Service*. U.S. Government Printing Office.

***End notes:***

---

<sup>i</sup> Precise estimates are not available for the foreign-born population in the Los Angeles region. For the state of California as a whole, the estimated net coverage rate increased by 2.6 percent (from 97.3 to 99.9 percent) between 1990 and 2000 (U.S. Census Bureau, 2003, 2003a). However, because the foreign-born population in Los Angeles is predominantly Latino, the estimated net 4.3 percent increase in coverage of the (national) Hispanic population is more indicative. Because the undercounts for both legal and undocumented immigrant populations have historically been high and because the 2000 Census made targeted efforts to improve coverage of these populations, I estimate that the coverage of the foreign-born population in Los Angeles rose by more than 4.3 percent. (U.S. Census Bureau, 2003, 2003b)

<sup>ii</sup> There are two main sources of data on the annual numbers of immigrants who enter the U.S. and live in the Los Angeles region. The first is the Office of Immigration Statistics (formerly Immigration and Naturalization Service) data on the numbers of immigrants newly admitted to permanent resident status and who intend to live in the Los Angeles CMSA. These data are flawed by the varying and recently long delays in processing of the administrative records on which the data are based, by the large number of admittees who are living in the U.S. before they adjust their status to that of “legal permanent resident,” and by the omission of all foreigners living in the U.S. without permission (undocumented). In view of the very large numbers of undocumented foreigners known to live in Los Angeles, the third flaw is fatal for our purposes.

<sup>iii</sup> It should be noted that these data are subject to their own inaccuracies. In addition to the omission of people not counted in the census, these data are flawed by inclusion of legal temporary residents, such as students and temporary workers, who are not immigrants, and by errors in responses to the question on year of arrival in the U.S. Care must be exercised in interpreting these data.

<sup>iv</sup> The observations for each decade are based on the counts in the following census. For cohorts that arrived in the U.S. in the most recent half decade, counts are based on their place of residence in the census; for cohorts that arrived earlier, the counts are based on their place of residence 5 years before the census. The multi-year arrival cohorts identified in censuses before 2000 are distributed to exact years according to more precise information on year of arrival from the 2000 census. An adjustment is made for an assumed level of emigration between period of arrival and the end of the decade.

<sup>v</sup> U.S. Immigration and Naturalization Service, various years. Although it is possible that these peaks in number of arrivals indicated by the census resulted from variations in the flow of undocumented migrants not included in the INS tallies, this seems much less likely than the suggested explanation of reporting bias.

<sup>vi</sup> Note also the regular increases in the final years of the last 3 decades, apparently reflecting the presence of temporary, non-immigrant, residents who were counted in the census in the following spring.

---

<sup>vii</sup> In fiscal year 1990, .88 million immigrants gained legal status under the IRCA program and another 1.12 did so in fiscal year 1991. Of those in the former year, 824 thousand were U.S. residents since 1982 and their relatives (many of whom were not already living in the U.S.) and in the latter 214 thousand were in this category, the rest being admitted as “Special Agricultural Workers.” Although there are no published data on the metropolitan location of intended residence for these immigrants, it can be inferred that the Los Angeles region received a much larger share of the residents since 1982, who came earlier in the process, than of the agricultural workers. (U.S. Immigration and Naturalization Service 1997)

<sup>viii</sup> These estimates are made with a method that minimizes if not entirely eliminates the effects of changes in population coverage between the 1990 and 2000 censuses. Much of the variation in census coverage is associated with differences in age, sex, ethnicity, and race. (See for example the methods used to measure coverage in U.S. Census Bureau (2003). It can also be inferred that there are variations by nativity (native or foreign-born and, among the latter, duration of residence in the U.S.). The method of estimating net domestic migration takes the *change in the share of each national cohort's population that was in Los Angeles between the 1990 and 2000 censuses* and applies that *proportional shift* to the cohort's population in the 2000 census to estimate the net 1990-2000 net domestic migration for the cohort. Cohorts are defined by year of birth, sex, race and Hispanic origin, nativity (foreign / native-born), and, for the foreign-born, by decade of arrival in the U.S. If coverage rates in each year for each cohort defined in this way were the same in Los Angeles and the rest of the U.S., even if these rates changed between 1990 and 2000, then the net migration *proportional shifts* will not be distorted by changes in these coverage rates. Since the proportional shifts are applied to the population at the end of the decade, the resulting estimate of net numbers of migrants are calculated on the same population base (coverage rate) as the second-half decade migration. The same method is used to estimate migration for the 1970-1980 and 1980-1990 decades. For the native-born population, this method is equivalent to the Census Survival Rate (CSR) method (Morrison et.al. 2004) of calculating net migration; but for the foreign-born population, is slightly different from the CSR method. Analogous methods that also exploit the data on place of residence 5 years ago and state of birth are used to estimate net migration of cohorts that were born or arrived in the U.S. after the start of each decade.

<sup>ix</sup> Because the Census Bureau has not published an estimate of domestic migration for 2000, the 10-year total includes an imputed estimate for this year, equal to the average of 1999 and 2001.

<sup>x</sup> Census 2000 includes questions on vehicles in household and means of travel to work, for employed persons, but not on driving or licenses. These data suggest that a substantially larger fraction of foreign-born than of native-born domestic migrants were non-drivers. Of adults who had lived in the Los Angeles region in 1995 and lived elsewhere in the U.S. in 2000, more foreign-born than native-born lived in households with no vehicle (12 % against 8 %) and in households that had less than one vehicle for

---

every two adults (18 % against 4 %). Among employed migrants, twice as many foreign-born as native-born traveled to work in a carpool (31 % against 15 %).

<sup>xi</sup> “At any given time, it is estimated by the Department of Motor Vehicles that of some 20 million driver's licenses issued to Californians, 720,000 are suspended or revoked. Furthermore, 1,000,000 persons are estimated to be driving without ever having been licensed at all.” California Department of Motor Vehicles (1995).

<sup>xii</sup> It is also possible that the children-per-adult migrant ratios were higher in the 1990s than 1980s. The DoF's estimates are based on ratios calculated with data from the 1980s.

<sup>xiii</sup> “The actuaries assume that half of other-than-legal immigrants both pay taxes and receive benefits, that a quarter pay taxes but do not receive benefits, and that the remaining quarter neither pay taxes nor receive benefits.” Social Security Advisory Board (2003)

<sup>xiv</sup> This foreign-native difference in fertility for the state implies a large if not equal difference for women in the Los Angeles region. As of 1998, 49 percent of the state's population was in this region.

<sup>xv</sup> The foreign/native gap among Asian women was also large but much more stable, averaging 1.1 children per woman during the 1982-1997 period covered in the study.

<sup>xvi</sup> Consistent annual estimates of domestic migration are not available until after 1990, so only the broad variations that can be identified from the census-based estimates for 5-year intervals are discussed here. The pre-1990 estimates by both the California DoF and Census Bureau give only total migration, combining domestic and foreign.

<sup>xvii</sup> Data on employment and payroll are U.S. Department of Commerce Bureau of Economic Analysis data from Frank Wen of the Southern California Association of Governments.

<sup>xviii</sup> Estimating the “push” of immigration on domestic migration while statistically controlling for the effects of growth in jobs and income would require multivariate methods which in turn would require reliable annual estimates of both international and domestic migration flows.

<sup>xix</sup> Bureau of Economic Analysis data from Frank Wen of the Southern California Association of Governments.

<sup>xx</sup> Studies of the impact of immigration in labor market areas on local wages have found at most weak negative effects. This is indicative a strong migration response to increased competition for jobs (Borjas 1994). Using 1985 to 1990 data, Kritz and Gurak (2001) find that this migration response was stronger among the foreign-born than native-born.