

**CALIFORNIA ENVIRONMENTAL GOALS AND POLICY
PART IV**

CALIFORNIA DEMOGRAPHICS

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May, 1995

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EXECUTIVE SUMMARY

This report examines "California Demographics" under three contrasting scenarios:

- (1) the geodemographics of California's population in 2020 assuming consistent straight line growth;
- (2) a slowing or no population growth scenario in California and its possible geodemographic ramifications by 2020; and
- (3) the eastward migration of California's population through 2020.

In the first scenario, after reviewing the history of population growth in the state from 1850-1960, in general, and over the last thirty years, 1960-1990, in detail, population is projected for each of California's 58 counties and for the state as a whole, by decade from 1990 to 2020. The 1990 federal census shows California with a total of 29,760,021 residents; for 2020, the state Department of Finance projects 48,976,518 using a straight line growth model.

In the second scenario, the aging of the "baby boomer" generation, and environmental and other precedents for outmigration exceeding immigration by 2020 are discussed, along with speculation on how the state's population might redistribute itself under zero population growth (ZPG). Nevertheless, ZPG in California seems highly unlikely, but signs of a slowing of population growth have recently begun to surface.

The final scenario looks at the Inland Empire in southern California and the Central Valley-Sierran foothill counties in central and northern California as the foci of eastward migration within the state as substantiated by current census data and projections. Spillover of this eastern migration into neighboring Arizona and Nevada, and its reverberative effect on the Inland Empire are also noted. Eastward migration of former Californians into the Rocky Mountain and Midwest regions of the nation is apparently not occurring, at least involving any significant numbers, as several states there continue to experience net outmigration.

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INTRODUCTION

Project Scenarios

The purpose of the report is to describe the distribution and demographic characteristics of California's population 25 years from now (in the year 2020) under three different scenarios:

1. "Assuming consistent straight line growth patterns for the State as a whole and for its various regions, what will be the state's population and its demographic characteristics in 2020? Is constant growth a reasonable assumption?"
2. "Assuming the state's population growth eventually slows or ceases during this period, what will be the state's population and its demographic characteristics in 2020? Is there a valid basis for assuming that growth will slow or cease? To what extent would this be because of migration or changes in birth and death rates?"
3. "Assuming continued eastward movement as immigrants settle temporarily on the west coast and then migrate east within the State and on to other states, what will be the state's population and its demographic characteristics in 2020? Please pay particular attention to the population patterns in California's central valleys and Inland Empire."

Report Plan

Given the stated scenarios and the questions posed by them, the plan of the report is to examine them in the order presented above. First, we will consider the **geodemographics** (spatial or geographic distribution of human populations and their characteristics) of California's population in 2020 assuming consistent straight line growth by briefly examining historical precedents from 1850 until 1960; reviewing growth patterns over the most recent three decades, from 1960 to 1990; and looking into future population growth by projecting populations through the next three decades, from 1990 to 2020. Since (1) there is considerable variation in growth patterns and population characteristics from county to county; (2) there are 58 counties in the state; (3) their boundaries are relatively permanent over time compared to other geopolitical units such as cities, whose corporate limits expand every time annexation occurs; and (4) each

is quite distinctive environmentally and culturally from the next, the county is the geographical unit of focus in this and the succeeding scenarios in this report.

Next, we shall ponder the geodemographic ramifications by 2020 of a slowing or no population growth scenario in California as might be induced by (1) the aging of the "baby boomer" **cohort** (persons or groups who share something in common, usually their year of birth), (2) **outmigration** (migration to another state) exceeding **immigration** (migration from another state), and (3) other deterrents to population growth, including environmental/socio-economic constraints, (e.g. periodic droughts and their adverse impacts on the home building industry, and natural disaster perception, such as contemplating earthquakes and how they can suddenly displace high density populations in relatively small geographical areas). In this second section we shall also speculate on the redistribution of the state's population under conditions of **ZPG** or **zero population growth**, where population size remains stagnant as a result of a combination of birth, death, and migration factors. It is noted at this juncture that **emigration** (migration to another nation) and **immigration** (migration from another nation) are also at play in this and the other scenarios, although undocumented immigration is not considered in this report.

Finally, we shall look into the eastward migration of California's population through 2020, paying special attention to the Inland Empire of southern California, as comprised of San Bernardino and Riverside counties, and several Central Valley-Sierran counties. It is noteworthy here that eight of the ten fastest growing counties according to the 1990 United States Census are located in these two regions of the state, and that much of the growth is tied to the eastward expansion of large metropolitan areas such as Los Angeles, Sacramento, and Stockton. Moreover, there is every indication that this eastward migration will continue well into the next century both within the state and as outmigration to Arizona and Nevada.

I. THE GEODEMOGRAPHICS OF CALIFORNIA'S POPULATION IN 2020 ASSUMING CONSISTENT STRAIGHT LINE GROWTH

If the demographic trends of the past three decades (1960-1990) continue, as recorded in Tables 1 and 2, California's population will reach 49 million by the end of the next three decades (1990-2020), as projected in Table 3. Although the overriding goal in this straight line growth scenario is to examine how California will come to have nearly 50 million residents by 2020, and to find out where they will be living and what their demographic characteristics will be then, we will first go back in time and consider historical precedents, particularly during the most recent three decades, leading up to existing and future geodemographic growth patterns. To present an eminently reflective mirror on the past, present, and future geodemography of California, this report makes generous use of maps, other illustrative materials, and tables.

Population Booms and Non-Booms, 1850 - 1960

As explained in Table 1, the population of 92,597 listed in the state's very first federal census in 1850 is probably greatly understated. Not only were some counties' records lost or destroyed and, in the more remote corners of the state, native peoples not counted, but a majority of the countable population had only just arrived in California in 1850, and most of them headed immediately for the gold diggings in the Mother Lode of the western Sierra Nevada; it is estimated that as many as 100,000 prospectors were combing the Mother Lode for gold by the early 1850s. Conducting a census amidst the teeming turmoil of the mining camps was not likely to be an effort that would pay off in an accurate head count. In any event, the Gold Rush was California's first population boom, far back during Spain's, and later Mexico's, occupation of California (1769-1848), neither nation was successful in luring more than a few thousand settlers to Alta California, as it was called in those days. From a contemporary perspective, perhaps what is most intriguing about California's first population boom is that it is repeating itself, and

more or less in the same place. For, as ranked in Table 4 and located in Figure 1, six of the state's ten fastest growing counties (Amador, Calaveras, Nevada, Placer, El Dorado, and Tuolumne) listed in the 1990 census comprise the heart of the famed Mother Lode. Moreover, while some of the six counties drop out after 1990, other Mother Lode counties are projected to take their place among the ten fastest growing counties in 2000, 2010, and 2020 (Table 4), namely Madera and Fresno (Fig. 1). Most notable among eastern Central Valley-western Sierran counties destined to sustain rapid growth, though, is Calaveras County (Fig. 1), which is predicted to be the fastest growing county by rate of growth in the entire state from 1990 to 2010 (Table 4). Of course, the lure of the foothills of the Sierra Nevada today is not of a precious metal, but rather that of a much desired environment coupled with relatively cheap land prices. We shall revisit the attractions of this region of California later in this report.

For the next ten decades listed in Table 1, 1860-1960, California's population growth varied from rapid to moderate, but mostly the former. By the end of the first decade, the population more than tripled, and the state experienced a growth rate that it will never come close to matching ever again. During the 1880s, California's population passed the one million mark, and in the first decade of the 20th century, it climbed past two million. During the "Roaring Twenties" the state claimed its second fastest growth rate, nearly 66%. Bust followed boom with the Great Depression of the 1930s and less than a 22% gain in population, but World War II and the post war recovery witnessed California's population surpassing the ten million mark by 1950. The population increased by more than 50% during the fifties to 15.7 million by the end of the decade.

The Last Thirty Years: 1960 - 1990

During the three decades most recently completed, California's population nearly doubled to just short of 30 million. Will the state's population double in size again in the next

thirty years to 60 million? Or will it fall short of 50 million by 2020 as projected in the latest California Department of Finance study (DOF, Report 93 P-3, 1993 & Table 3)? Or will it not even attain 40 million in 2020 as projected in the state agency's previous report (DOF, Report 86 P-3, 1986)? Whatever the state's total population is by 2020, how will it be distributed by sex and age, geographically, and by other characteristics? Until 2020 arrives, hard and fast answers to these questions will remain elusive. In the meantime, though, a review of recent population trends provides us with the best insights available into its near term future. And, although what follows initially appears to emphasize changing geographical distributions based on land market and environmental conditions, it will deal equally with purely demographic distributions, such as sex and age, as it progresses. The latter will become especially apparent in subsequent sections where population projection models are explained and precedents for ZPG are considered.

A comparison of population densities for 1970 and 1975, mapped in Figures 2 and 3 with topographic landscape portrayed in the Figure 1 underlay, yields what even the most casual observer of California geodemography would expect: a preference by most urban residents for settlement along and adjacent to the coast but well within the economic spheres of influence of major, long-established metropolitan centers, namely the San Francisco-Oakland Bay Area and southern California stretching from Los Angeles-Long Beach south to San Diego. Ranked in Table 4 as the two fastest growing counties from 1960 to 1970, and mapped in Figure 4 among five counties with a growth rate of more than 50% during the decade, Orange and Ventura provide proof of the preference among new home buyers for seaside location, if they could afford it! And afford it they could during the 1960s. By the end of the decade, for instance, one could still purchase a new tract home within two miles of the ocean in Orange County for about the same price (\$30,000 to \$40,000 range) as a like home deep in the eastern interior of Los Angeles County, and in both cases commuting time by automobile to and from downtown Los Angeles was about the same. Add to the attractions of living by the sea, competitive land

prices, and increasing but acceptable commuting distances the spillover of development from the recently built-up southeastern (e.g., Downey and Norwalk) and northwestern (the San Fernando Valley) portions of Los Angeles County into neighboring Orange and Ventura counties, and it's no wonder the latter grew by 102% and 90% (Table 2), respectively, between 1960 and 1970. Similar forces would propel Santa Clara County at the southern end of San Francisco Bay (Fig 4) into the position of fourth fastest-growing county by 1970 (Table 4), and also influence events that would cause the Santa Clara Valley to become better known as Silicon Valley. Notable in Orange and Santa Clara counties' growth is the fact that both their populations topped the one million mark by 1970 (Table 2).

Moving into 1970-1980, we note in Figure 5 that an even dozen counties surpassed the 50% growth rate, with two of them, Alpine and Mono, exceeding 100% growth (Table 2) and ranking first and second as the fastest growing counties during the decade (Table 4). Albeit Alpine's rate was impressive, the numbers involved were scant (from 484 to 1,093) and the growth was not sustained, the county dropping from 1st to 58th, or last, between 1980 and 1990 (Tables 2 & 4). The numbers were more impressive just to the south of Alpine, more than doubling to over 8,500 (Table 2) by 1980 in Mono County. Development of a world class ski resort at Mammoth Mountain. would add permanence to Mono County's growth. Seven of Alpine's and Mono's Sierran neighbors to the west--Nevada, El Dorado, Mariposa, Amador, Tuolumne, Madera, and Placer counties-- would help round out the "even dozen" list for 1970-80. Located outside the region, Santa Cruz and Lake counties complete the list, the former boasting a lengthy Pacific shoreline, and the latter the largest natural body of freshwater entirely in California, Clear Lake. Orange and Ventura also grow during the decade, but a diminishing number of home buyers can afford the skyrocketing real estate prices in those counties. San Diego County posts the highest numerical increase during the seventies, adding a half-million to its population to bring it to 1,859,623. Seen in Figure 6, Santa Clara becomes the sixth county

with a density of more than 1,000 residents per square mile by 1980. For a second decade in a row, San Francisco loses population (Table 4), the demise most often being attributed to "out-of-reach real estate and rent." The density of 14,000 per square mile also proved oppressive to former residents.

Showing six counties with more than 50% growth and eight counties with densities of over 1,000 per square mile, Figures 7 & 8 introduce us to the last full decade of record, 1980-1990. What these maps and Table 4 bring into sharper focus is a geodemographic trend that will be addressed in the last scenario of this report: eastward migration into the Inland Empire and Central Valley-Sierran counties, a population migration likely sustained through 2020.

The Next Thirty Years: 1990 - 2020

To this point in the report we have worked with known quantities, for example, the federal decennial censuses from 1960 through 1990. From this point forward we look into the future geodemography of California working largely from population projections developed by the Demographic Research Unit of the State of California Department of Finance. Whatever projection method or model is employed, it will be based on the variables or "**components of change**" of **migration** and **natural increase** (or **decrease** as determined by the difference between births and deaths) as graphed in Figure 9 for the decade ending in 1990. The model used will specify a **base year**, for which data is a known quantity (census data or DOF estimates) and a **target year**, to which the population is projected. Figures 10 - 16 and Tables 3 - 6 were developed using a base year of 1990 (DOF data is as of July 1, 1990), a target year of 2020, and, in some cases, intervals of ten years or the intermediate years of 2000 and 2010. Before moving onto an analysis of these graphs, maps and tables for 1990-2020, an explanation of the projection methods utilized by the DOF is in order.

To project population growth, California and other states use variations or modifications

of the **cohort component method**, whereby components (e.g., natural increase) for each cohort (e.g., people born 0 to 4 years ago) are combined in the traditional “demographic bookkeeping equation” (Murdock, 1991) as follows:

Where:

$$Pt_2 = Pt_1 + B_{t_1 - t_2} - D_{t_1 - t_2} + M_{t_1 - t_2}$$

Pt_2 = population projected to target year t years hence
 Pt_1 = population at the base year t1
 $B_{t_1 - t_2}$ = number of births that occur during interval t1 - t2
 $D_{t_1 - t_2}$ = number of deaths that occur during interval t1 - t2
 $M_{t_1 - t_2}$ = amount of net migration during interval t1 - t2.

In the case of California, “the DOF employs a baseline cohort-component method to project population by gender, race/ethnicity and age.” (DOF, 93-P3, 1993). As tabulated in Tables 5 and 6 for the base year of 1990 and the target year of 2020, “race/ethnicity” is broken down into four mutually exclusive categories: white, black, Hispanic, and other. The baseline model assumes people can exercise the right to migrate where they choose, and that no major natural catastrophes or war will befall the State or the nation. While “no major natural catastrophes” occurring is a reasonable assumption for the straight line growth scenario, it is discounted as an assumption in the next section of this report where we discuss factors that might lead to ZPG. After all, California is the most earthquake-prone state in the nation, and even localized, moderate quakes like the two that occurred in the San Fernando Valley in 1971 and 1994 can displace tens of thousands of residents temporarily, and smaller numbers permanently.

As mentioned above, a cohort component model traces people born in a given year through their lives. As each year passes, cohorts change through mortality and migration rate assumptions, and new cohorts are developed through fertility rate assumptions as based on women of childbearing age. Given that this report focuses on the county as the principal geodemographic unit, it is noted that counties with **special populations**, such as found in prisons or at military bases, receive separate treatment; that is, the DOF calls upon outside agencies,

such as the Department of Corrections or the U.S. Department of Defense to provide projections for populations under their jurisdiction. A new prison or a base closure, especially in a rural county, can significantly and permanently impact growth or loss of population. We shall also mention growth constraints unique to some counties.

As projected through the target year 2020 in Figures 10 - 16 and Tables 3 -6, California's population is forecast to reach several landmarks, both at the state and county levels. By 2020, the state's population will have reached 48, 976,518, and a dozen counties will each claim a million or more residents, including Alameda, Contra Costa, Fresno, Kern, Los Angeles, Orange, Riverside, Sacramento, San Bernardino, San Diego, Santa Clara, and Ventura. In terms of population density, though, the same eight counties that contained more than a thousand people per square mile in 1990 remain in that density range in 2020 with no new counties being added to the list: Alameda, Contra Costa, Los Angeles, Orange, Sacramento, San Francisco, San Mateo, and Santa Clara. In San Francisco County, density actually decreases by 2020, while it and its neighbor to the north, Marin County, register decreasing populations between 2010 and 2020. In rate of growth from 1990-2000, four counties, including Calaveras, Del Norte, Riverside, and Madera, boast gains of more than 50%; however, this is the last decade that any county will attain that rate.

The most dramatic of the projected population changes for 1990-2020 will be those affecting the ethnic geodemography of California. For the state as a whole, as shown in Figure 16 and tabulated in Tables 5 and 6 for 1990 and 2020, we see the proportions of whites and Hispanics pull even, to 41% apiece, the percentage of African-Americans slip from 7% to 6%, and "others", who are mostly Asian-American, rise moderately from 10% to 12% of the total population. At the county level, populations in Imperial, Fresno, Los Angeles, Madera, Monterey, Riverside, and Tulare are all expected to be more than half Hispanic. Alameda, Contra Costa, Sacramento, San Francisco, Solano are projected to remain the counties with the

highest proportions of African-Americans, but all with less than 20% by 2020. Counties that will be 80% or more white by 2020 include Amador, Calaveras, El Dorado, Lake, Mariposa, Modoc, Nevada, Placer, Plumas, Shasta, Sierra, and Trinity. Assuming at least 90% of the "other" category is Asian-American, we find the following counties with the highest proportions (varying from 13% minimum to 35% maximum of the total county population) of "others" by 2020: Alameda, Alpine, Contra Costa, Del Norte, Fresno, Inyo, Los Angeles, Merced, Orange, Sacramento, San Francisco, San Joaquin, San Mateo, Santa Clara, Solano, Sutter, and Yuba. Numerically in 1990 and by 2020, Los Angeles County continues to lead in total population in all four categories.

II. A SLOWING OR NO POPULATION GROWTH SCENARIO IN CALIFORNIA AND ITS POSSIBLE GEODEMOGRAPHIC RAMIFICATIONS BY 2020

Thus far we have viewed **fertility, mortality, and migration** as **population or demographic processes** that drive population growth. Now we shall examine them from the perspective of population growth declining and ultimately stagnating. As farfetched as a ZPG scenario might seem for California, there are some existing trends and recent events within the purview of these demographic processes that chip away at the assumption of continued straight line population growth. One such trend is a diminishing fertility rate, which we shall look at here in terms of aging “baby boomer” cohorts. Another possible harbinger of impending sluggish growth is the occasional period, albeit short-lived, when outmigration has exceeded immigration in California, and/or an unexpected slowing of growth has resulted from a combination of fertility, mortality, and migration processes. We shall also offer some explanations for such demographic slowdowns and speculate on how a California ZPG population might geographically realign itself.

The Aging of the “Baby Boomer” Cohorts

The **baby boomers** are defined as a generation of Americans born during a period starting in the first full calendar year after the end of World War II, 1946, and ending in 1964, when the annual total of births in the United States reached an all time high (Plane & Rogerson, 1994). By the late 1970s and into the early 1980s, the largest cohorts born between 1946 and 1964 entered their most productive childbearing years, and, except for minor downturns in reproductivity induced by increasing divorce rates and couples deciding to postpone childbirth, the baby boom persisted through the mid-1980s. “But by 1988, their (the baby boomers) age span had shifted to 24 to 42 (from 16 to 34 in 1980). Because women in different age groups

have distinctive patterns of conception and pregnancy outcomes...overall birth rates are dropping as this giant generation moves farther and farther from its prime childbearing years” (Kalish, 1993). The **population pyramids** for 1985 and 2020 in Figure 17, which show age groups in intervals of 5 years from 0 - 85+ vertically and male (left) and female (right) population proportions horizontally, afford a graphic view of the impact of an aging baby boomer generation specific to California by 2020. Back in 1985, the baby boomers ranged in age from 21 to 39, and the pyramid bulges in those most productive childbearing years. However, by 2020, the boomers range from 56 to 74 years of age, and the reproductivity bulge from 20 to 39 is nowhere near as pronounced as it was in 1985. Coincidentally, the median age of the California population rises from 31.3 in 1985 to 36.7 in 2020 (DOF, 1986). Admittedly, none of the discussion in this ZPG scenario deals with ethnic-specific fertility rates, which were employed in developing the projections used in the growth scenario. Yet, even a cursory look at the DOF’s latest projections reveals statewide declines in fertility among all “race/ethnic” categories except “Asian and Others”, which show only a modest gain (DOF, 1993). A projected overall decline in fertility coupled with the aging of the baby boomer generation may have a more depressing effect on population growth in California than heretofore anticipated.

As seen in Figure 18, other insights into future population change can be gleaned from comparing the shapes of population pyramids through time or in different venues in the same time frame. For instance, the upside-down shape of the pyramid for census tract 5761 in Long Beach portrays an overwhelmingly senior population that has already realized the ZPG scenario, whereas in tract 0997.02 in nearby Westminster, a large young population concentrated near the base of the pyramid implies an existing predominance of baby boomers.

Household formation, or literally the number of people making up the average household, may provide a more reliable predictor of population trends than fertility rates or migration patterns, mainly because those Californians who will form future households can be

counted now. Average household size is unmistakably declining in California, with projections for 1990 to 2020 indicating the average number of persons per household dropping from 2.72 to 2.60 (Miller & Hyslop, 1995).

Finally, with the older age groups growing the fastest due to the aging of the baby boomers and increased life expectancy (e.g., the +65-year-old group from 11% in 1985 to 16% in 2020: see Fig. 17) and ever sooner pulling even with working age groups as a proportion of the total population, a projected increase in the **dependency ratio** (younger and older populations divided by the working age population) from 52 per 100 in 1985 to 59 per 100 in 2020 (DOF, 1986) could be yet another factor in moderating population growth. An expanding dependency ratio is bringing a time we all dread ever closer: the day when the number of Americans drawing on entitlement programs, such as Social Security, begins to exceed the number of contributors and what they contribute. Some would argue that such a situation argues for increasing fertility rates so that a larger work force would eventually come into existence. But others are quick to point out that this would only intensify the competition for a shrinking resource base within an expanding population. Such competition eventually acts to depress wage growth and diminish economic prospects, and thereby decreases fertility rates.

Recent Precedents for Outmigration Exceeding Immigration

During the 1970s and for the first time in California's history, natural increase began to pull even with immigration as the principal agent of population growth. Coming into that decade, five counties had lost population in the previous decade (Table 2), and a sixth, Los Angeles County, was in the midst of a short term decline: from 7.1 million in 1969 to 6.9 million in 1974. Certainly a good part of the outflow could be attributed to the spillover of the state's most populous county into the neighboring coastal counties of Orange to the southeast and Ventura to the northwest. Yet an environmental disaster of major proportions, the San Fernando earthquake

of February 9, 1971, also sent people fleeing, some from the county, others from the state. Many homes were rendered uninhabitable by the quake, especially in Sylmar, while others were evacuated for fear of a damaged dam bursting open. Eventually, though, most residents returned to their homes, and Los Angeles County would be back on the growth track by mid-decade. But some, for fear of another quake or what happens in its aftermath, remained away forever.

A month short of 23 years later, January 17, 1994, another devastating earthquake struck the San Fernando Valley. The Northridge quake also dislodged large numbers of residents, again most temporarily, but some permanently. Coincidentally, by the end of 1994, California had posted its lowest growth rate in more than two decades. The growth rate of 1.2% for 1994 tied the state's record low rate of 1971, the same year as the first major San Fernando Valley quake. Most interesting, though, was the City of Los Angeles' net loss of 23,500, or 0.7%, in 1994 (*L.A. Times*, 1995). Much of the exodus was from the San Fernando Valley, most of which is within the corporate limits of the City of Los Angeles.

Other recent quakes, for example, the Whittier Narrows of October 1, 1987 and the Loma Prieta of October 17, 1989, have sent Californians packing, some beyond its borders. Although some survey results are to the contrary, it seems that declines in growth are more than merely coincidental with the occurrence of the moderate seismic events mentioned so far. What will happen in terms of population decline when the long-overdue, "big one" strikes? Or is the Northridge quake, albeit only moderate in intensity, becoming the proverbial "straw that will eventually break the back" of continued population growth?

Other environmental hazards that can dissuade people from either coming to or remaining in California include drought, flood and fire. Yet, as devastating as the 1986-92 drought, the 1995 floods, and the 1993 fires were in California, such natural catastrophes beset other states as well, and thereby probably have little impact on interstate migration. Again, though, California is unique as "earthquake country", and perceptions of it as such, as well as the

actual seismic events themselves, could serve to measurably attenuate population growth.

All the above notwithstanding, California's near term future will probably be one of "more to come". As of the 1990 census, California was one of 31 states still comfortably in the net immigration category, and the immigrants were from the 19 states listed in the net outmigration category. Those states losing to outmigration between 1985 and 1990 were, from east to west: New York, West Virginia, Ohio, Michigan, Illinois, Wisconsin, Oklahoma, Mississippi, Louisiana, Iowa, Nebraska, the Dakotas, Colorado, Wyoming, Montana, Idaho, Utah, and Alaska; and regionally, there were net losses of 226,000 from the Northeast and 167,000 from the Midwest during the five-year period (Plane & Rogerson, 1994).

Geographical Redistribution of the State's Population in a ZPG Scenario?

Although slowdown and ZPG scenarios are generally discounted, if they ever did prevail it seems unlikely they would cause any significant reshuffling of California's population geography. Indeed, as projected earlier in the straight line growth scenario, inter-county migration patterns would likely remain sustained. The difference under ZPG would rest in the result of many counties losing population by 2020, not just Marin and San Francisco (Table 3). Population numbers would stagnate under ZPG, but not Californians' inclination to move around, especially in search of lower density living. In fact, inter-county migration might well accelerate under ZPG, since people would enjoy larger slices of the "resource pie", and thereby be better able to gain the means to move somewhere else in the state. After all, California is a big place, and much of it is relatively empty: about 75% of the current population lives on about 2% of the land. As we shall examine in the next scenario, ZPG or no ZPG, the eastward migration of Californians within the state continues unabated.

III. THE EASTWARD MIGRATION OF CALIFORNIA'S POPULATION THROUGH 2020: SOME CASE STUDIES

Thanks to the rebound of the California economy from the recession of the early 1990s, its successful retrenchment following the demise of the defense industry, and favorable land market and infrastructure conditions within the new growth regions of the state, continued straight line growth of population seems likely to prevail for some time to come, perhaps through the year 2020. Assuming this trend is sustained, and commuters remain willing to accept increasing travel time to and from work, the existing geographic focus of new growth ever-eastward from major metropolitan centers will no doubt continue, and may well amplify. As we shall see next, there is good reason to believe southern California's Inland Empire and the eastern Central Valley-Sierran foothill region will continue to attract more new settlement than anywhere else in the state. Moreover, the lure of booming metropolitan centers not that much farther away in neighboring Nevada and Arizona will serve to intensify the eastward migration trend over the next quarter century.

The Inland Empire and Points East

We saw in the first scenario that the two counties that comprise the Inland Empire, Riverside and San Bernardino, were the fastest growing counties in the state as of the 1990 census. Not only did they rank one and two in rate of growth, but each easily exceeded the one-million mark in total population by 1990 (Table 2). Adding to this impressive performance, Table 7 shows nine of the state's ten fastest growing cities from 1980 to 1990 located in Riverside and San Bernardino counties. Sustainment of this growth through the ensuing 25 years is substantiated by DOF projections forecasting populations of 3.1 million in Riverside

County and 3.4 million in San Bernardino County by 2020 (Table 3). With 6.5 million residents projected for 2020, the Inland Empire seems destined to become a regional rival of the Los Angeles Metropolitan area rather than remain an economic dependent of it . Countless benefits accrue from economic independence, two of them being increased job creation within the Inland Empire and diminished commuting to work places outside the region.

As plotted in Figure 19, the continued eastward development of the Inland Empire is essentially two-pronged. In San Bernardino County, it is oriented to Interstate 15, starting with the cities of Hesperia and Victorville, and continuing northeastward towards Barstow. From 1980 to 1990, Hesperia grew by 268% and Victorville by 177% (Table 7), and today their combined population numbers more than 100,000. Given their location along major road and rail arteries, their potential for energy (e.g., the nearby Solar 2 and LUZ solar power plants) and water (e.g., the California Aqueduct adjoins the two cities and local groundwater is abundant), resource development, a competitive housing market (e.g., the median value of a single family home in 1990 in Victorville was \$102,800 compared to \$226,500 for the same home in Upland in western San Bernardino County), and an abundance of cheap, developable land, Hesperia and Victorville are expected to maintain their rapid growth rate well into the next century (Honor, 1993). To the south in Riverside County, growth is predicted to continue to radiate in a generally eastward direction from Palm Springs. For instance, the desert resort city's neighbor to the southeast, Cathedral City, grew by 601% between 1980 and 1990 (Table 7), and foresees continued growth.

Like Hesperia-Victorville, the Palm Springs-Coachella Valley area is well situated in terms of infrastructure and resource availability, with Interstate 10 and the Metropolitan Water District's Colorado River Aqueduct crossing the northern portion of the region, one of the world's largest windpower facilities located at the eastern end of San Gorgonio Pass, and vast tracts of developable, relatively low-priced land, some of it found above aquifers, such as in

Yucca Valley. During the recession of the early 1990s, both the San Bernardino County and Riverside "prongs" of new development stalled; however, by 1995, with the recession abating and first time buyers able to purchase homes with as little as 5%, or even nothing, down for the first time, the eastward expansion was back on track. If growth persists in these directions, economic and other links between the Inland Empire and Las Vegas, Nevada (2.5 hours by I-15 from Barstow) and Phoenix, Arizona (4 hours by I-10 from Indio in the Coachella Valley) will be strengthened. Although wall-to-wall development lining the interstate highways from Victorville to Vegas, or from Palm Springs to Phoenix, are unlikely scenarios anytime in the foreseeable future, the shrinking time-distance between these places will further intensify eastward migration within the Inland Empire. Furthermore, in tracking migration through monitoring new driver's license applications, it has been found that the influx of new residents into Las Vegas and Phoenix is increasingly from California.

Central Valley-Sierran Counties

Here too, as mapped in a blue stripe pattern in Figure 19, the geographical expression of burgeoning population growth is one of movement eastward from established metropolitan centers, but in this case from Sacramento, Stockton, Modesto, and Fresno rather than from Los Angeles and Orange or the Bay Area counties. And, as with the Inland Empire, it's like the new suburbanites followed the admonition: "Go east young people, for ye shall find detached dwellings at lower prices than you'll pay for crowded condos closer to the city." Yet, although the family financial motivations may be similar for gravitating to lower density living deeper in the interior of the Inland Empire or the eastern side of the Great Central Valley and the Sierran foothills, the physical environments of the two regions are quite different, and thereby offer contrasting attractions and choices. For instance, the contrast between the desert landscape of the interior Inland Empire and the verdant farmscape of the Great Valley or the oak-pine

woodlands of the Sierran foothills is like the comparison between day and night. Even though both regions become unbearably hot every summer, the latter offers by far the friendlier environment on the whole. Add to this the alpine wonder of the High Sierra seemingly "right in your backyard", and it's no surprise at all to find people by the hundreds of thousands "headin for the hills", but this for time for homes rather than gold as they did 150 years ago.

Legislation to preserve prime agricultural land, such as the California Land Conservation Act of 1965, may increasingly serve to direct suburban development away from the valley floor and into the western foothills of the Sierra Nevada over the next 25 years. By the same token, increasingly stricter environmental regulations will serve to limit growth in the higher reaches of the mountains. For example, two of the region's fastest growing counties, El Dorado and Placer, border on Lake Tahoe, where development has long since stagnated due to sewage treatment facilities long ago reaching their maximum capacities (treated effluent is piped out of the Tahoe Basin). Given these forces, development has and will continue to concentrate in the foothills, where plenty of open space still remains, and the constraints on development are relatively few and far between. Besides, this where most people would prefer to live, as opposed to "down in the valley flats" or "high up in the mountains where the winter snows drift deep." As we have already covered in some detail in the first scenario, several of this region's counties appear in the "ten fastest growing" list (Table 4) in every decade between 1960 and 2020. Most consistent, though, is Calaveras County, which is in first place for two decades in a row, 1990-2000 and 2000-2010, and finishes second in the last decade covered, 2010-2020. Incidentally, Calaveras County passes the 100,000-mark in total population by 2020.

In closing, attention is called to Figure 20, the DOF' map of "California Population Growth , 1990 to 2040". It shows many of the counties in the two regions just discussed registering a 200% or greater gain between 1990 and 2040.