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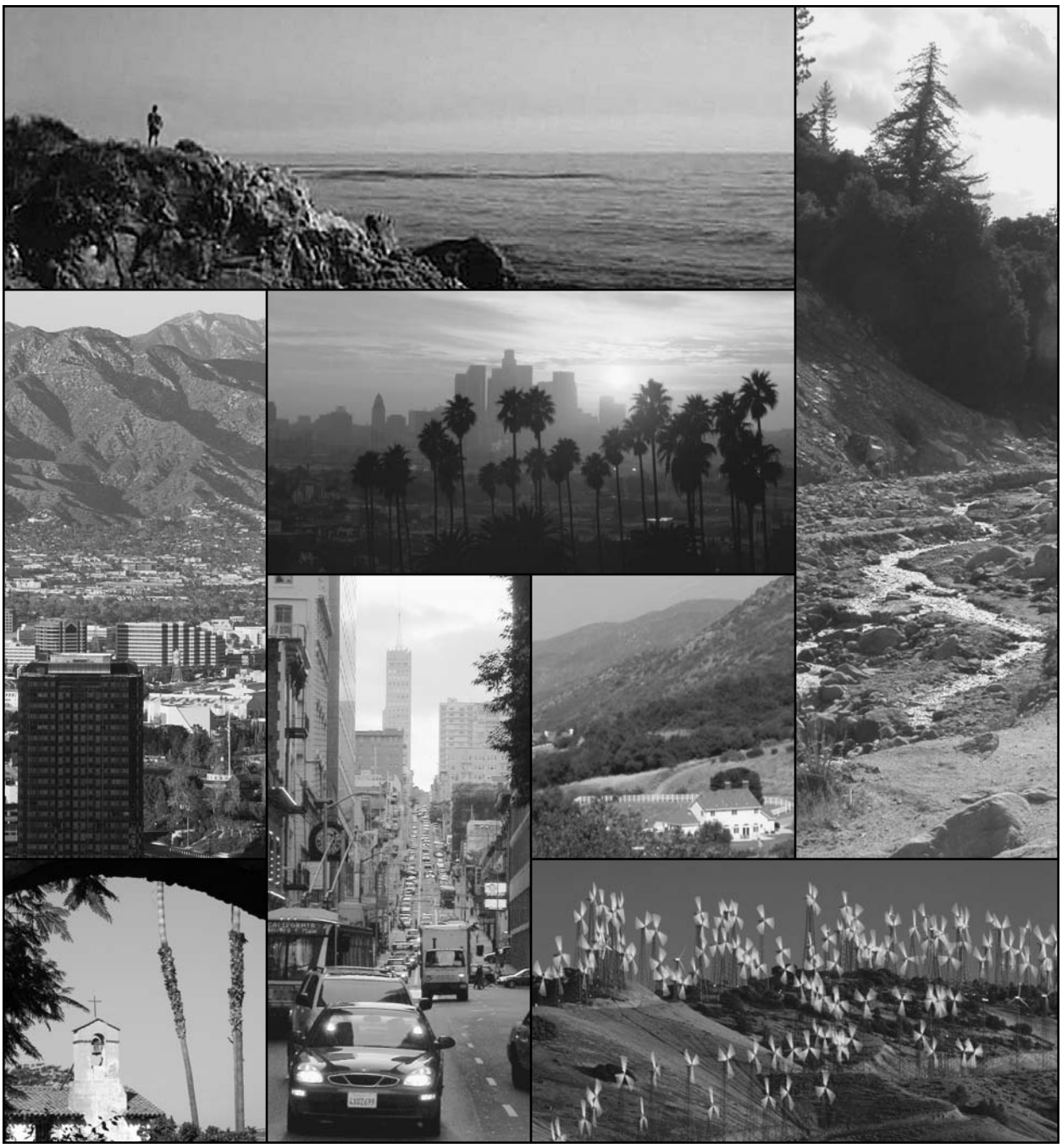
Southern California Socioeconomic Assessment: Sociodemographic Conditions, Projections, and Quality of Life Indices

Rachel Struglia **Patricia L. Winter** **Andrea Meyer**



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Abstract

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This report summarizes findings from the regional and county socioeconomic assessment conducted for southern California. The 26-county region extends from San Diego to the San Francisco Bay Area. A majority of the state's population resides within this region, which surrounds the four southern California National Forests (Angeles, Cleveland, Los Padres, and San Bernardino). Regional and county descriptions, including histories, population sociodemographics and projections, and quality of life indicators are examined. The information is of use to natural resource and area planners concerned with the implications of social change in the region.

Retrieval Terms: socioeconomic assessment, demographic changes, population projections, quality of life indicators, urban growth, southern California

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Retrieval Terms: socioeconomic assessment, demographic changes, population projections, quality of life indicators, urban growth, southern California

This report provides a snapshot of the socioeconomic conditions and projected future condition for the region surrounded by the four southern California National Forests (Angeles, Cleveland, Los Padres, and San Bernardino). It is part of the socioeconomic assessment for these forests, designed to address an information gap in the region's biological and ecological assessment completed in December of 1999. The scheduled update of forest plans for these forests increased the need to address social and economic issues in the region.

A variety of regional and county-level indicators are provided. They are designed to capture the complex demographic and environmental changes occurring in the region. While this report is not a decision-making document, it is of relevance to natural resource managers, regional planners, and academicians.

Natural resources planning benefits from this assessment because it provides information on how the population is likely to grow and change over time. Impacts on wildland areas can be better anticipated with this information.

Population growth is forecasted for all counties in the assessment through 2040, with the largest population increase expected in the Central Valley region. This dramatic increase is of concern in part due to the conversion of agricultural land and open space to suburban development.

Increased racial and ethnic diversity, in this already socially diverse region, is also anticipated. In fact, the majority of increase is accounted for among people of color, particularly Hispanics.

A changing age structure is also expected in the region, with variation between racial and ethnic groups, as well as variations by gender. A trend of increasing age is anticipated among American Indian, White, and Black populations. However, the median age structure for Hispanics and Asian/Pacific Islanders is much younger.

An examination of residential and non-residential development reveals the effects of the 1990s recession, and the build-out characteristic of some regions resulting in high percent occupancy of existing residences. Differences in cost of living are revealed in average rents and the value of owner-occupied housing.

Transportation is an issue for many of the counties, where a high percentage of workers are employed outside of the county. This is especially apparent in the Association of Bay Area Governments (ABAG) Region.

A comparison of schools based on the Stanford 9, a statewide indicator of academic achievement, reveals the highest performance in San Diego County, and the lowest among Central Valley counties.

Water and air quality (measured through emissions) are also reviewed in this report, revealing the best water quality ratings in the San Diego region, and the counties within the Southern California Association of Governments (SCAG) region.

The trends identified in this report highlight the need for land management agencies to involve emerging constituencies. It also emphasizes the need for regional, county, city, and land management agencies to strengthen connections and collaborative efforts. These steps will better equip agencies to address the expected population growth and change occurring within the constraint of finite resources.

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General Technical Report
PSW-GTR-187

Southern California Socioeconomic Assessment: Sociodemographic Conditions, Projections, and Quality of Life Indices

I. Introduction

Statement of Purpose

The purpose of this document is to provide a snapshot of the socioeconomic conditions and projected future condition for the region falling within and surrounded by the four southern California National Forests (Angeles, Cleveland, Los Padres, and San Bernardino), spanning from the U.S./Mexico border in the south to the San Francisco Bay Area in the north (*fig. 1*). It is not a decision-making document. Instead, it provides a foundation of social and economic information necessary in the process of formulating natural resource policies, strategies, and decisions. Because the assessment area is characterized by projections of dramatic population change, the focus is on current context and projected future. Its scope extends far beyond forest lands, into the counties surrounding these lands from which recreational visitors come and which are home to the publics served by the USDA Forest Service.

A scheduled update of the plans for the four southern California National Forests served as an impetus for this assessment. The biological and ecological assessment for the region was published in December of 1999 (Stephenson and Calcarone 1999), providing an information base for decisions. However, the social and economic context of land management in the region was not the focus of that assessment, leaving a gap in the information needed for resource decisions. The socioeconomic assessment addresses that information gap.

California is experiencing a shift in population from the coastal counties of Los Angeles and the San Francisco Bay Area to the Central Valley and the Inland Empire. The distribution of the population has implications not only for political empowerment and the allocation of public resources, but also for the protection of environmental resources. In the past two decades, the middle class has headed for outlying areas: either the Inland Empire of San Bernardino and Riverside Counties in the SCAG region; the rural eastern reaches of the ABAG region, including the Sierra Nevada foothills; or counties in the Central Valley of California. All these areas are environmentally sensitive (Bradshaw 1991, 1992, Fulton 1999), creating the complex problem of how to manage growth and simultaneously protect endangered species and their habitats.

We provide a variety of indicators to capture the complex demographic and environmental changes occurring in the southern California region. We hope the document will encourage forest supervisors, natural resource managers, urban and regional planners, academics, and other interested readers to delve further into the aspects of the assessment of particular relevance to their management area or particular area of interest.

Companion documents to this volume were created as part of the socioeconomic assessment. They include: (1) an atlas for southern California, published by the Pacific Northwest Research Station focused on social and economic indicators (Raettig, Elmer and Christensen 2001); (2) a volume summarizing findings from focus groups conducted to examine public opinions regarding threatened and endangered species (Cvetkovich and Winter 2001); and (3) an annotated bibliography of public opinions regarding wildlife management (Finn 1999).

Figure 1—The assessment area includes 26 counties (shaded area).

Source: 50 Individual States—Counties 1995

The Assessment Area

Rationale for County Selection

The counties for this assessment were chosen in a three-step process. First, previous research on forest use from the Wildland Recreation and Urban Cultures Unit of the Pacific Southwest Research Station was used which indicates that most visitors to the Cleveland, San Bernardino, Angeles, and Los Padres National Forests come from an area 1- to 1½-hours' drive from each forest (Chavez 2001). On the basis of this finding, populations within a 1- to 1½-hour proximity from each of the forests was the key criterion for initial county selection. These counties represent the majority of counties selected. The second involved a consideration of human-forest dependencies, leading to an even broader perspective of who might be visiting these urban forests. Larger metropolitan areas, which would have potential for significant impact because of their population, though a bit farther away, should be considered in land management planning. Therefore, large urban areas farther than 1½-hours from the forests were included in the study. This second step captured Sacramento County and counties in the San Francisco Bay Area. Finally, the list of proposed counties was reviewed by southern California forest supervisors and resource managers. On the basis of their recommendation, one additional county was included, bringing the total to 26 of the 58 California counties.

Regional Divisions for the 26 Counties

The 26 counties lie in a region that extends from Sacramento south to the Mexican border. The counties fall into five major regional political and geographical areas *(appendix A)*. These include:

- The San Diego Association of Governments (SANDAG), which includes only San Diego County.
- The Southern California Association of Governments (SCAG) region, which includes the six-county area of Los Angeles, Orange, Riverside, San Bernardino, Imperial, and Ventura. Some counties belong to a council of governments (COG) and have sub-regional COGs as well. This is the case in the SCAG region. Each of the six counties has anywhere from one sub-regional COG (Imperial, Orange, San Bernardino, and Ventura), to two sub-regional COGs (Riverside), to as many as eight sub-regional COGs (Los Angeles).
- The Central Coast counties, which include the four-county region of Monterey, Santa Cruz, San Luis Obispo, and Santa Barbara. Some of these counties are part of a region-wide body (Association of Monterey Bay Area Governments). Division of the counties into regions follows pre-existing political divisions and facilitates an understanding of the counties as geographical entities that are quite distinct from one another.
- The Central Valley counties, which are not part of a region-wide body, but have individual COGs. These counties include Sacramento, San Joaquin, Stanislaus, San Benito, Merced, Fresno, Kings, and Kern. Almost all of the counties in the assessment are included in a COG. Counties in the state that are not represented in a COG are predominantly rural. For the counties included in the assessment, there are exceptions to the general pattern of COG representation. For example, Kings County is represented by the Kings County Regional Planning Agency, which functions both as a county planning agency and a COG.
- The Association of Bay Area Governments (ABAG), which includes the nine-county region of San Francisco, Marin, Solano, Contra Costa, Alameda, Santa Clara, and San Mateo (as well as Sonoma and Napa, which are not part of the assessment).

The Structure for Land Management and Planning in the Assessment Area

The regulation of land in California is predominantly the domain of local governments. In some areas, particularly with regard to environmental protection, housing, and transportation, the State is involved in the formulation of policy for local governments to implement. In other areas, particularly the regulation of open space, the Federal government has the primary jurisdictional control. The levels of government most heavily involved in growth and development projections are the regional and sub-regional bodies *(fig. 2)*. As described in Levy (2000), regional planning began in the United States in the 1920s, but did not become widespread until the 1960s. In the 1960s, there was rapid suburban growth, environmental issues began to carry more weight, and Federal money for highways, urban redevelopment, and environmental projects increased tremendously. In order to receive Federal grants, local governments had to meet the requirements for regional planning. Thus, Federal funding was the impetus for the formation of COGs, which today are the main instrument for inter-municipal cooperation in the United States. Planning for a metropolitan area necessitates a regional mechanism because city governments can be too small to adequately address metropolitan area problems (Levy 2000). In addition, many land-use issues involve externalities or spill-over effects that overlap jurisdictional boundaries (for example air pollution, traffic, and water pollution), making a regional perspective necessary for effective planning. Despite the need for a regional perspective, it can be a daunting task to form a successful regional governing body. In fact, attempts to give SCAG or any other regional organization broad powers to overrule local land-use decisions have been opposed by cities, and the concept of home rule remains strong in California (Feldman 1991, Jeffe 1995).

COGs as Regional Entities

Because of their regional focus, COGs are often the appropriate contact for land management agencies that want to establish planning relationships on issues

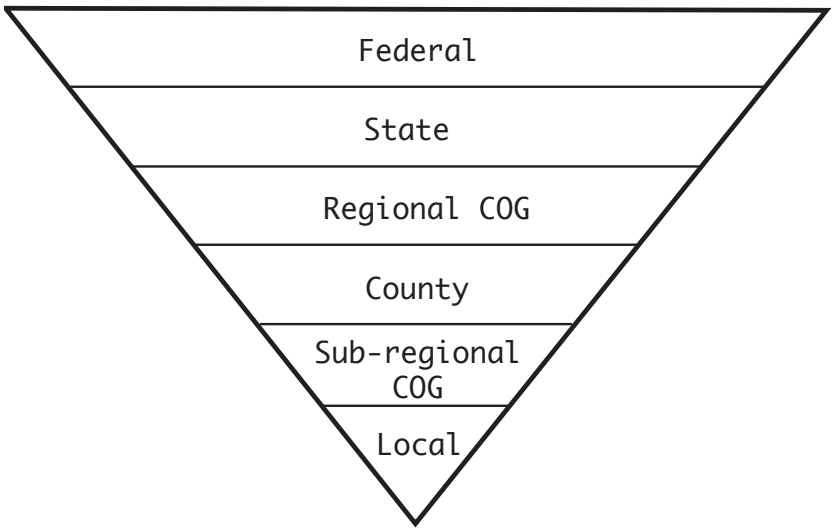

Figure 2—Hierarchy of government in California.

of mutual concern like urban growth that borders wildland areas (see *appendix B* for list of COGs and sub-regional COGs in the assessment area). Councils of government were authorized by statute in 1963 (Cox and Whiteside 1991) and are voluntary associations of counties and cities. Their regional role is to serve as a forum for local governments to address regional issues that transcend city limits. COGs can provide an arena in which local governments can prepare regional plans, deal with regional issues, set regional policy, strengthen the effectiveness of local government, and develop and maintain a regional database. Traditionally, transportation and the coordination of regional housing goals are the two largest regional issues that are in a COG's domain. COGs can serve as area-wide clearinghouses for reviewing and assuring consistency between Federal and State plans, projects, and grants, and they carry out various Federal and State mandates. COGs are also the designated Metropolitan Planning Organizations for the disbursement of Federal highway funding. Depending on local needs, they can also serve in a variety of other roles, such as waste management boards, transportation agencies, or airport land use commissions. For example, the San Bernardino Association of Governments serves as a regional COG and the county transportation commission.

COG boards of directors are appointed by county boards of supervisors and city councils within the geographical boundary of the COG. Board members must be locally elected officials. An advantage to COGs is that they are perceived as "bottom-up" organizations because they are created by cities and counties as a Joint Powers Authority, not by the State of California (Cox and Whiteside 1991).

Information Sources and Challenges

Scope of Analysis

The socioeconomic assessment provides an analysis of the following indicators:

- Regional context
- County context from historical accounts and present-day description
- Sociodemographic characteristics of each county, focused on projected population, ethnic and racial diversity, and changing age structures
- Development and real estate trends
- Quality of life indices including: (1) transportation, commuting, and employment; (2) education; (3) health care; (4) recreation and tourism; and (5) environmental quality.

The reader will find that not all sections contain parallel information. This occurred whenever data were not available for all areas, but were of value and interest in other counties or regions.

When combined, this information provides the reader with a picture of each county contained in the assessment area, including how it originated, selected current characteristics, and county future.

Data and Methodology

Multiple sources were used in the assessment including Federal, State, regional, county, and local governments in addition to research conducted by independent academic researchers, private research firms, and newspapers *(table 1)*.

Table 1—*Summary of types of data included in this assessment.*

Federal data 1990 and 2000 U.S. Census Bureau of Labor Statistics National Center for Health Statistics Wildland Recreation and Urban Cultures Research Work Unit, Pacific Southwest Research Station, USDA Forest Service
State data California Air Resources Board California Department of Education Demographic Research Unit of the California Department of Finance (DOF) California Research Bureau of the California State Library
Regional data Councils of Government (COGs) and sub-regional COGs
County data Construction Industry Research Board County government websites County general plans County histories written by county or local historians
Academic research Journal articles
Private research firms Center for Continuing Study of the California Economy, Palo Alto The Rand Corporation Torf Fulton Associates California Planning and Development Report (CPDR)
Journalistic accounts *The Press-Enterprise* *Los Angeles Times* *Orange County Register* *San Bernardino County Sun*

Challenges of Using Local Planning Documents

Varied and multiple sources of data were used in this socioeconomic assessment. The variability among local plans affected the availability of documents from jurisdiction to jurisdiction. For example, the only mandated element of the General Plan in California is the housing element, which must be updated every 5 years. However, even the housing element was older than 5 years for some counties in the assessment area. Other elements of county general plans in the assessment area dated back to 1986. Because of this, city and county general plans could not always be relied on for the most recent information.

Additional Challenges

In addition to the variability in the recency of planning documents, other issues arose with regard to the methods by which various agencies count populations, how race and ethnicity are defined by various agencies, and how projections are developed. Population projections are developed by multiple agencies using different assumptions about fertility, mortality, migration, and job availability. The

variation in projections disseminated by the different agencies highlights the varying perspectives agencies have about the pace and magnitude of future growth. In order to clarify the many issues, a brief discussion of the U.S. Census and State of California Department of Finance (DOF) follows. While the U.S. Census does not develop population projections for a scale smaller than the state level, 1990 U.S. Census county population figures and 2000 figures, as available, were included because U.S. Census numbers are often used as the base population by state and regional agencies developing projections within the state of California. Not addressed at length, but also an issue, was the constraint presented by ever-changing and somewhat contradictory numbers provided by various regional and county planning bodies. When multiple sources were available, their unique numbers and/or analysis were reported, allowing the reader to observe the range in reporting of current and projected data.

U.S. Census

The census was written into the political system in 1787. Its purpose is to count the population every 10 years. New population numbers may trigger changes in legislative formulas that allocate tax revenue and Congressional seats (Anderson and Fienberg 1999). From the beginning of the census, there has been debate about the best way to count people.

Undercounts sometimes occur because the population is mobile and because certain groups may not want to be counted. For example, problems occur in convincing undocumented immigrants that census results will not be given to the Immigration and Naturalization Service (Anderson 1988). Anderson and Fienberg (1999) found that the census undercount of racial/ethnic groups and the urban poor has historically been a concern.

Another reason why undercounts occur is because of language barriers, which contribute to misunderstanding census takers' missions, compounded by the fact that interpreters are rarely provided (King and Magnuson 1995). Undercounts can also occur because people are unaware of the census and its purpose (Barrett 1994). In one study, those who felt that the census was not important to the country or their community were more than twice as likely to fail to return their census forms (Barrett 1994).

Variation between census years also presents some difficulty. For example, greater attention to Asian and Pacific Islander groups in the 1980 and 1990 censuses (Barrett 1994) can make comparison to earlier censuses difficult. In addition, the definitions of race, ethnicity, and national origin have been an issue. In contrast to other agencies such as DOF, the Bureau of the Census defines Hispanic origin as an ethnic category rather than a racial one. Furthermore, an individual may belong to more than one racial/ethnic category and thus, self-identification may change considerably between censuses (Passel 1993). The 2000 census allowed for multiple ethnic/racial identifications for each individual.

The most complete census data available for this assessment was from 1990, though the newest census conducted in 2000 was drawn from wherever possible.

State of California Department of Finance (DOF)

Because the U.S. Census only develops population projections at the national and state levels, DOF is used for projections at the county level (*appendix C*). (Information on the various statistical methods used for different data sets can be found on the DOF website, www.dof.ca.gov.)

According to DOF, the population projections depict only one possible course of future population change, e.g., the one reflecting recent trends in fertility, mortality, and migration. The projections do not reflect judgments about what is desirable or undesirable, but rather what can be expected if current trends continue through 2040. [See Johnson (1999) for a discussion of the differences in long-term population projections for California by DOF, U.S. Census Bureau,

United States Bureau of Economic Analysis, the UCLA Anderson Forecast, and the Center for Continuing Study of the California Economy. The paper can be accessed at www.ppic.org/publications/CalCounts1/calcounts1.html]. Also, DOF numbers "… do not consider the economic side of the growth equation" (Schuiling 1999). The availability of jobs will influence population growth, and DOF does not take into account the out-migration or importation of people based on the availability of jobs. For DOF, the focus in calculating projections is on demographics. Regional COGs, such as SCAG and ABAG, consider both demographics and economics in developing projections. The extent to which regional COGs incorporate local land uses into their projections varies. Local land-use factors, especially cases of military base conversions, the decline of the local real estate market, or build-out can significantly modify growth projections. Therefore, local governments are instrumental in providing input on local land use and helping SCAG and other regional COGs to revise or develop projections that accurately reflect these local circumstances.

Summary of Cautions on Using These Secondary Sources

This assessment compiles data from a wide variety of sources, including government agencies, private research firms, universities, historical texts, and journalistic accounts. While a spectrum of data sources can provide multiple perspectives and often a more complete picture of a complex problem, data from multiple secondary sources can be contradictory. We found this to be true with the population projections and the extent of growth that was predicted. Different governing bodies used various assumptions (demographic, economic, or local land-use decisions) when formulating projections. Rather than attempting to choose the "right" number, we present all numbers, which more accurately portray the debate about the form and extent of urban growth in the rapidly changing southern California region.

In other cases, we present multiple data sources to highlight the layers of complexity that one indicator cannot provide in isolation. For example, we include the 1990 and 2000 U.S. Census populations for each county by ethnicity. The ethnic breakdown of the population does not capture the extent of ethnic diversity that can exist in each county. In order to understand more completely who future forest users might be and the communication challenges that could arise for forest managers, we included the percentages of Limited-English-Proficient (LEP) students in the public school system for the 1997-98 school year. We offer no hypotheses as to whether the percentages of LEP students in the school system will decline with length of tenure in the United States or whether these percentages will increase as a result of U.S. or California immigration policy changes. We present the data to demonstrate the variety of languages spoken throughout the assessment region and to suggest to forest supervisors and managers that they will have a multi-ethnic population of future forest users with a diverse spectrum of natural resource interests.

Social and Political Context

Health and Aging of the United States Population

The southern California socioeconomic assessment occurs within a broader social and political context in which the nationwide population is increasing, the median age of the population is increasing, and racial and ethnic diversity is increasing. National data is introduced here to demonstrate that trends in California are not an anomaly. In 1997, 13 percent of the U.S. population was 65 years of age or older. It is estimated that in 2030, 20 percent of Americans will be 65 years of age or older (Kramarow and others 1999). In 2030, 17 percent of the California population will be 65 years or older (State of California Department of Finance 1998). Of the older population, the fastest growing segment is people aged 85 years or older. Over the past 50 years there have been changes in mortality rates. For example, the biggest

decreases in mortality have been in death rates for heart disease and stroke. However, death rates for pneumonia and influenza among the elderly have increased in the last two decades (Kramarow and others 1999). Many factors have contributed to declines in mortality in the last 50 years. Some of these factors include decreases in the number of individuals who smoke, improvements in nutrition, increases in the overall educational level of older segments of the population, and innovations in medical technology.

Health status varies across ethnic groups. Life expectancy varies by race and ethnicity. In 1997, life expectancy at birth was approximately 5 years longer for White women than for Black women and 7 years longer for White men than for Black men. At age 65, differences by race narrowed and life expectancy was 1.7 years longer for White women than for Black women and 1.8 years longer for White men than for Black men. However, at age 85, life expectancy for Blacks was slightly higher than for Whites (Kramarow and others 1999).

One factor affecting the health of people of all ages is socioeconomic status. Although poverty rates among the elderly have declined since the 1960s, 1 out of 10 persons 65 years of age or older was living below the Federal poverty threshold in 1997 (Kramarow and others 1999). The poverty rate was higher among older Black and Hispanic persons compared with older White persons. In 1997 among persons 65 years of age and older, Blacks were 2.9 times as likely and Hispanic persons were 2.7 times as likely to live in poverty as White persons (Kramarow and others 1999). Women also had higher rates of poverty than men.

Health care coverage is not uniform. From 1987 to 1997, the percentage of people without health care coverage rose in the United States (*table 2*). In California, the percentage of those without health care coverage is higher than the national average and it is growing.

Table 2—*Persons without health care coverage in the United States and California, by percent, 1987-1997.*

	1987	1990	1991	1992	1993	1994	1995	1996	1997
U.S.	12.9	13.9	14.1	15.0	15.3	15.2	15.4	15.6	16.1
California	16.8	19.1	18.7	20.0	19.7	21.1	20.6	20.1	21.5

Source: National Center for Health Statistics 1999

The Growth in Income Inequality Nationwide and in California

In the late 1990s the U.S. economy was in a period of economic growth. Despite the economic expansion, long-term trends in the distribution of wealth present a troubling picture. An examination of the percent of people living below the poverty level by race and ethnicity reveals that nationwide Blacks and Hispanics have historically had much higher rates of poverty than Whites and Asians *(table 3)*.

The incomes of the country's wealthiest families have increased substantially over the past two decades, but middle- and lower-income families have seen their incomes stagnate or decline. Nationwide, from the late 1970s to the late 1990s, the average income of the lowest-income families fell by slightly more than 6 percent after adjustment for inflation, and the average real income of the middle fifth of families grew by 5 percent. In contrast, the average real income of the highest-income families increased by more than 30 percent (Bernstein and others 2000). As reported by Bernstein and others (2000), in 46 states the gap between the incomes of the richest 20 percent of families and the incomes of the poorest 20 percent of families is wider than it was two decades ago. California ranks fifth in the ratio of incomes of the top and bottom fifths of families from 1996 to 1998. The ratio between the average income of the bottom fifth of families in California ($12,239) and the average income of the top fifth of families ($146,066) is 11.9. This compares to a nationwide ratio of 10.6.

Table 3—*Persons living below poverty level, according to race and Hispanic origin: United States, by percent, selected years, 1973-1997.*

	1973	1980	1985	1990	1991	1992	1993	1994	1995	1996	1997
All races	11.1	13.0	14.0	13.5	14.2	14.8	15.1	14.5	13.8	13.7	13.3
White	8.4	10.2	11.4	10.7	11.3	11.9	12.2	11.7	11.2	11.2	11.0
Black	31.4	32.5	31.3	31.9	32.7	33.4	33.1	30.6	29.3	28.4	26.5
Asian or Pacific Islander	N/A	N/A	N/A	12.2	13.8	12.7	15.3	14.6	14.6	14.5	14.0
Hispanic origin	21.9	25.7	29.0	28.1	28.7	29.6	30.6	30.7	30.3	29.4	27.1
White, non-Hispanic	N/A	N/A	N/A	8.8	9.4	9.6	9.9	9.4	8.5	8.6	8.6

Source: National Center for Health Statistics 1999

The increasing income gap is a policy concern because poverty has been linked to poor health outcomes, substandard housing, and higher levels of crime victimization (Bernstein and others 2000). Bernstein and others (2000) also suggest that a widening gulf between the rich and the poor and middle class can reduce social cohesion, trust in institutions including government, and participation in the democratic process.

Four Socioeconomic Trends in California

Four dominant socioeconomic trends in California have major implications for planning and the protection of open space in California. The four trends are population growth and demographic change, a dramatic shift in the distribution of the population, the crisis in local government organization and finance, and the Federal influence in rural land use. Development pressures are greatest on the urban fringe, especially in California's Central Valley and in the eastern counties of the ABAG and SCAG regions. As California grows, it will reach build-out in certain areas such as Orange and Los Angeles Counties, and thus, planning will have to shift its focus to redevelopment in older urban areas. A shift to redevelopment will entail a significant re-orientation for planning, which has traditionally concerned itself with new development (Fulton 1999).

Population Growth and Demographic Change

The historic trend of population growth driven by migration from other states (Johnson and Lovelady 1995) has been replaced by a new trend, in which virtually all population growth comes from foreign immigration and natural increase. Between 1940 and 1970, migration from other states was more important than international migration, but from 1970 to 1998, the trends reversed (Lopez 1999). Since 1990, natural increase has also grown in importance and accounts for more than 50 percent of the population growth in California (Lopez 1999).

Ethnic and racial diversity increased at a faster pace than demographers originally anticipated so that as of 2000, no ethnic group was the majority in California. In fact, "one of every four cities above 50,000 in population in California has no racial or ethnic majority of any kind; neither Anglos nor Hispanics nor Blacks nor Asians constitute a majority of the population. Such settings are the likely precursors of a national pattern in large cities" (Clark and Morrison 1993, p. 1). According to Clark and Morrison (1993), variations of these settings are projected to become more commonplace and will occur at larger scales in future decades. They cite DOF data, which show that in 1990, only two of California's 58 counties had populations

without a racial or ethnic "majority." By 2010, a total of 15 counties are expected to acquire this demographic pattern.

Implications for planning hinge on the extent to which new immigrants will embrace American cultural and political values, and the extent to which they will be able to afford traditional American goals (e.g., home ownership) if they choose to embrace them. Community life for immigrant families is often very public in nature and centers around churches, parks, and other institutions that attract families and large groups of people (Fulton 1999). Research on ethnicity and the use of open space indicates that there are differences in use patterns, perceptions of the environment, and recreation activities (Chavez 2001). Finally, the number of people age 65 years and older is growing numerically and proportionally. By 2020, it is forecasted that 14 percent of California's population will be 65 years or older (Lopez 1999).

Dramatic Shift in the Distribution of California's Population

The story of California for almost a century and a half has been the story of growth. Since the beginning of World War II, "the state's population has grown by 25 million residents, or 1,300 new residents every day" (Fulton 1999, p. 3). Although California's population fluctuates depending on economic conditions, the trend has been one of growth, even during the recession of the 1990s. Today, California's growth is driven by immigration from Latin America and Asia and, more importantly, by the large families born to those immigrants once they are here (Fulton 1999).

California's population distribution is shifting at the same time as its population is growing. Population growth is moving in two opposite directions: inward to central cities and older suburbs and outward to the metropolitan fringe and to rural areas. Although middle class people of all races and ethnicities move to the suburbs if they can, the working-class industrial areas of California cities have not emptied as a result (Fulton 1999). Instead, new immigrants have inhabited the older areas of cities as the middle class has departed. Nationwide, older suburbs are struggling with the problems of weakening infrastructure, job loss, crime, poverty, and declining populations (United States Department of Housing and Urban Development 1999). In California, problems of older suburbs are compounded because of the shortage of affordable housing and the growing population.

The challenge in California is how to accommodate a quickly growing population that is already living in crowded conditions. For instance, in Orange County in 1999, the city of Santa Ana with a population of 315,000 (State of California Department of Finance 1999) had a higher population density at 4.24 persons per household (www.infooutfitters.com) than San Francisco with a population of 790,500 (State of California Department of Finance 1999). San Francisco has a projected 2.40 persons per household by 2000 (Association of Bay Area Governments 1997). According to SCAG, southern California will have to add nearly 2 million housing units to its present stock to accommodate the anticipated growth in population. "Put in other terms, it is as if the equivalent of two Orange Counties is added to an already largely developed region" (Jeffe 1995, p. 42).

Furthermore, the geographic concentration of racial and ethnic groups in the population can affect political empowerment. Election districts can be configured to encompass and concentrate ethnic communities or to disperse them. For African Americans, who are typically concentrated within cities, geographically based political empowerment is feasible. By contrast, Asians tend to be residentially scattered, which makes political engagement within single-member election districts more difficult; Hispanics are between these two extremes (Clark and Morrison 1993). Therefore, the distribution of the population and ethnic clustering can influence political empowerment and the distribution of public resources.

Crisis in Local Government Organization and Finance

Since the passage of Proposition 13 in 1978, which restricted local governments' revenue-raising ability to a rate of 1 percent of the assessed value of property,

local governments have been experiencing an ongoing crisis in their funding and operations (Fulton 1999). Funding crises have a significant impact on land use because local governments compete to attract land uses that will generate a tax revenue surplus for their cities. Proposition 13 was designed to address a system of property assessment and taxation that was arcane and unpredictable, but the limitation on local governments' revenue-raising abilities has had a number of unintended consequences for cities. Proposition 13 transferred a great deal of power from local governments to the State government in Sacramento because it gave the State power to allocate property tax revenue among local agencies. Cities and school districts, while not in the best financial position they could be in, are doing better than counties (Baldassare 1998, Fulton 1999). Each time an area incorporates (becomes a city) it draws revenue sources away from the county. Ironically then, as counties become urbanized, they have a more difficult time sustaining themselves financially. Conversely, single-purpose agencies, such as special districts and assessment districts, are faring best of all since they often have independent sources of revenue that shield them from the larger financial context.

The State has required cities to provide affordable housing in an attempt to ensure that a more diverse spectrum of housing is built. The requirement is needed because the commercial base of a city may only be able to support a limited amount of housing and developers tend to build high-cost housing. The housing element of the General Plan is the only State-mandated element, and it must be completed every 5 years. Each city's fair-share housing allocation is delineated in the State-mandated Regional Housing Needs Assessment (RHNA). Because of State budgetary constraints, the analysis of housing needs for the state was delayed in the late 1990s. In 1998 state funds were allocated for RHNA, but the development of RHNA is causing much of the current debate about population projections in the SCAG region.

If cities cannot afford to pay for the infrastructure that new housing developments require, then they must tax residents. Since 1978, there has been an increase in impact fees, development fees, and all kinds of assessments to raise revenue for building infrastructure. In sum, the changes in the financial structure of California government have led cities to engage in turf battles that make it more difficult for local governments to plan for the long-term interests of their communities (Fulton 1998).

Federal Influence in Rural Land Use

As urban and suburban areas expand across the landscape, planning has become even more significant in rural areas. In recent years, the Federal regulatory role in rural areas has become more important as endangered species and wetlands have slowed or halted development (Fulton 1997). The Federal government is important in California land-use planning, because it owns 45 percent of the land in the state (www.blm.gov/natacq/pls98). Where the land in California is Federal, the USDA Forest Service and the USDI Bureau of Land Management are the primary agencies with jurisdiction. In 1999 California received the second largest payment from the Forest Service from revenues collected from timber sales, grazing, recreation, minerals, and land uses on National Forest land (www.fs.fed.us/news/20000216.htm). Local economies are tied to resource extraction on Federal land, particularly in rural counties. Federal ownership limits the amount of private land available for urban development, which is historically a key method of raising revenue for counties.

Setting the Context for the Assessment

The area surrounding the four National Forests in southern California is a unique social and ecological zone. Wildland-urban areas are diverse in terrain, topology, and culture. The pressures facing natural areas are more pronounced in

the wildland-urban interface because of their proximity to urban environments where people from divergent cultures congregate and where urban expansion is gradually encroaching upon wildland areas (Murphy 2000). Pressure on wildland areas will continue to increase in magnitude and complexity as populations grow and become more diverse in race and ethnicity, age, and the values held toward natural resources.

As the management of wildland areas proximate to densely populated urban areas becomes more complex, there is increasing recognition that human activities are creating environmental impacts. Human forces stem from economic growth, population and demographic change, technological change, political institutions, and attitudes and beliefs held by the citizenry (Ewert 1996). Thus, management of these areas must successfully integrate an ecological component, an economic component, a political component, and a sociocultural component (Decker and others 1996). "Historically, resource agencies have focused most attention on the ecological component; it is now apparent, however, that the other elements must be given greater attention. In some cases, resource management has been driven principally by components other than the ecology of the system being managed" (Decker and others 1996, p. 32). Because of these human forces, resource management agencies are facing the complicated task of managing natural resources for an ever-expanding array of sociopolitical interests.

Natural resources planning benefits from the development of socioeconomic assessments because they indicate how the population is likely to grow and change. It is important for natural resource managers, especially in southern California, to know the possible scenarios of population growth and change so that impacts on wildland areas can be anticipated and management strategies devised with the most up-to-date scientific information available. The potential for increased recreation demand, changing public values, and housing developments closer to the forests are at the forefront of natural resource management agency discussions (see Phillips 2000).

Organization of this Assessment

The assessment examines 26 California counties beginning from the southernmost region of the state, San Diego, and moving north through the central regions of the state to the San Francisco Bay Area. First each region is described. Then, the counties within the region are discussed with respect to the historical aspects of the county's development. The county's current condition is then presented, focusing on sociodemographic characteristics, development and real estate, quality of life, and environmental indicators. The summary and implications are discussed for each region and for the assessment area as a whole.

Following the presentation of county and regional data is a chapter focused on the main trends across the regions, serving as a synthesis of some key findings in the assessment. The final chapter explores implications of findings from the assessment.

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II. The San Diego Association of Governments (SANDAG) Region

The SANDAG region is a one-county region in southern California naturally circumscribed by the Pacific Ocean to the west, Camp Pendleton to the north, the international border to the south, and mountains and critical habitat to the east (*fig. 3*). San Diego County is faced with numerous urban growth challenges. Rapid population growth, sprawl, traffic congestion, rising home prices, and the disappearance of open space are not unique to San Diego, but are also occurring in other regions of the state. However, because natural barriers in all directions surround San Diego County, there is a limit to the growth that can occur in this county.

SANDAG is the regional agency that addresses such region-wide issues as transportation, environmental management, housing, open space, air quality, energy, fiscal management, criminal justice, and economic development. SANDAG is a "joint powers agency" created under state law by a formal agreement signed by each local government member (www.sandag.cog.ca.us/whats_new/about_sandag.html). It is composed of 18 cities and the county government and serves as the forum for regional decision-making. SANDAG is governed by a board of directors composed of mayors, council members, and a county supervisor from each of the region's 19 local governments. Supplementing these voting members are advisory representatives from the U.S. Department of Defense, Caltrans, the San Diego Unified Port District, the San Diego County Water Authority, the Metropolitan and North San Diego County Transit Development Boards and Tijuana/Baja California/Mexico.

The 4,200-square-mile San Diego region is a "hotspot" for biodiversity and threatened and endangered species management. The region has more rare, threatened, and endangered species than any comparable land area in the continental United States (Conservation Biology Institute and Ogden Environmental and Energy Services Company 2001, San Diego Association of Governments 2001). The population, housing, and employment growth of the 1980s resulted in a rapid loss of natural habitats. As a result of this habitat loss, San Diego County, its 18 cities, and SANDAG have initiated three multiple habitat/multiple species planning efforts (San Diego Association of Governments 2001). The hope is that an ecosystem approach rather than a jurisdictional approach will serve to protect habitat and wildlife corridors while allowing development to occur in surrounding areas. The Multiple Species Conservation Program, which was completed in 1997, targets more than 170,000 acres for conservation where 85 sensitive plants and animals will be protected. Similar programs in the northern and eastern portions of the county also establish preserve systems targeting 19,000 acres and 1 million acres, respectively. Ultimately, the goal is to merge the three programs so that a wildlife corridor system can be established and vegetation can also be protected. These efforts will be completed in 2003 (San Diego Association of Governments 2001).

San Diego County

- San Diego is the third most populous county in the state after Los Angeles and Orange Counties.
- An additional 1 million people are expected in the region between 1995 and 2020.
- Population growth is significantly outpacing housing construction.
- More than 500,000 new jobs are expected between 1995 and 2020.

History

San Diego was first discovered in 1542 with the arrival of a small Spanish fleet led by the explorer Juan Rodriguez Cabrillo (Heilbron 1936). In 1602, the explorer

Figure 3—The San Diego Association of Governments (SANDAG) region is a one-county region in southern California (shaded area).

Source: 50 Individual States—Counties 1995

Vizcaíno entered the bay and named it "San Diego" after his favorite saint. Spain's primary interest in sending explorers west was to discover a shorter route to the Far East. San Diego's location, coupled with a wild and mountainous terrain, acted to separate it from the rest of the world (Ebner 1987). For 150 years San Diego existed in isolation. In 1769 Spain sent out two expeditions to San Diego: one by land from Mexico and the other by sea. The land expedition included Father Junipero Serra and Gaspar de Portolá, who continued on to Monterey after the land and sea expeditions united in San Diego.

All the early Spanish governors of California from 1769 to 1800 either lived in or visited San Diego. In fact, it held such importance economically and as an entry point to the region that by 1850 it was known all over the world. Hides and whale oil were the early commercial exports from the region, remaining the state's major exports from 1770 to 1870 (Carroll 1993).

El Camino Real, "the King's Highway," begins at the Mission San Diego de Alcalá and links all the California missions. The Mission San Diego de Alcalá is considered the "mother" mission. The missions were secularized in 1835. Before secularization, there were no privately owned ranches in the region. Grazing cattle was the predominant land use.

In 1850, the city of San Diego was founded. Also in 1850, California was admitted to the Union, and San Diego County became the first of the state's original 27 counties. Settlers from all over the country had migrated to the city, and the period from 1850 to 1874 was spent incorporating the city, fixing boundaries, controlling the San Diego River, and establishing infrastructure. One of the early city developers was Alonzo Horton, who purchased 960 acres near the harbor for $265 (Ebner 1987) and laid the land out in city blocks and lots. By 1870, Horton's land was called "New San Diego" and was considered a choice location for business. As the success of "New Town" grew, water acquisition for the city became more important. In 1873, the San Diego Water Company formed and a sunken well downtown provided water to the immediate area. Another group formed the San Diego Flume Company in order to develop a water supply in the mountains, resulting in the Cuyamaca Dam and a 31-mile flume down the mountain (Ebner 1987). A separate project in the 1900s involved a canal system constructed from the Colorado River. By 1902, 400 miles of canals were in service and almost 100,000 acres of the Imperial Valley were cultivated. In 1907, Imperial Valley voted to form a separate county and seceded from San Diego.

With the onset of World War II, it became increasingly apparent that new sources of water for the city would have to be developed. Navy installations were putting an added strain on a limited water supply (Ebner 1987). To alleviate the shortage, the Navy appealed to Washington for funds to obtain Colorado River water. Because the development of an additional water supply was a wartime emergency, funds were made available from the Federal government. In 1944, the San Diego Water authority was formed. President Franklin D. Roosevelt directed immediate construction of an aqueduct connecting the Colorado River Aqueduct of the Metropolitan Water District with the San Diego water system at its San Vicente reservoir. The aqueduct is 71.1 miles long: 30.4 miles are in Riverside County and 40.7 miles are in San Diego County.

The Korean War brought new jobs and activity to the area. Population grew once more, and by the early 1950s, the San Diego Water Authority was serving more than a half million people. Congress authorized the Navy to add a "second barrel" to the original pipeline, completed in 1954 (Ebner 1987). In 1960, construction was underway on a second San Diego Aqueduct. Voters also ratified a state proposition to secure northern California water. In 1966 and 1983, voters again approved funds to expand water pipelines of the San Diego Aqueduct.

Through the years, the industrial base diversified, including firms specializing in computers, oceanography, and research and development in addition to the existing military presence and aerospace industry.

San Diego County Today

Sociodemographic Characteristics

Projected Population—The population of San Diego County has more than doubled in the past 25 years (San Diego Association of Governments 1998a), making San Diego third to Los Angeles and Orange Counties in population (United States Census Bureau 2000). The highest growth rate occurred in the 1970s when the population grew by 37 percent. In the 1980s and 1990s, the population grew more slowly, with the recession tempering the county's growth. Growth will continue according to DOF and SANDAG, the two agencies that have published projections for the San Diego region. SANDAG predicts 1 million more people in the region between 1998 and 2020; DOF's forecasts are even higher. However, DOF's projections do not take into account economic considerations, while SANDAG's projections factor in job availability. This explains SANDAG's lower estimates (*table 4*).

Table 4—*Population projections, San Diego County, 1990-2040.*

Source	1990	1995	2000	2005	2010	2020	2030	2040
U.S. Census	2,498,016[1]	-	2,813,833	-	-	-	-	-
DOF	2,511,369[2]	-	2,943,001	-	3,441,436	3,917,001	4,484,673	5,116,228
SANDAG	-	2,669,300	-	3,223,400	3,437,600	3,853,300	-	-

Source: United States Census Bureau 1990a and 2000, State of California Department of Finance 1998, San Diego Association of Governments 1999e

[1] Data from April 1.

[2] Data from July 1.

Ethnic and Racial Diversity—The racial and ethnic diversity of the region is more pronounced than in the nation as a whole but mirrors that of California (San Diego Association of Governments 1998a). In 1990, Whites were the largest ethnic group in the county followed by Hispanics, Asians, Blacks, and American Indians (*table 5*). In 2000, Whites remained the largest ethnic group, but their proportion of the population decreased and the proportion of Hispanics and Asians increased. The proportion of Blacks and American Indians also decreased.

Table 5—*1990 and 2000 population, San Diego County.*

	1990	2000
	----------Percent----------	
Non-Hispanic White	65.4	55.0
Hispanic all races	20.4	26.7
Non-Hispanic Black	6.0	5.5
Non-Hispanic Asian	7.4	9.1
Non-Hispanic American Indian	0.6	0.5
Non-Hispanic other	0.2	0.2
Non-Hispanic two or more races	N/A	2.9

Source: United States Census Bureau 1990a, 2000

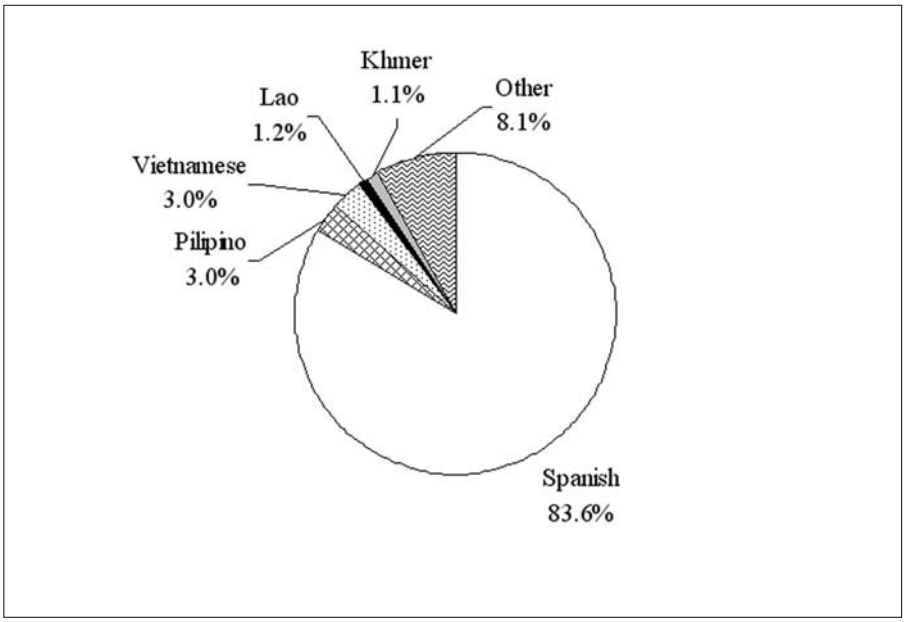
Hispanics are the largest ethnic group in the region, followed by Asians. Blacks have a presence in the county at 6 percent (compared to the much larger county of Los Angeles where Blacks comprise 10 percent of the population). The higher number of Blacks in San Diego County compared to surrounding counties (Riverside, 5 percent; Imperial County, 2 percent; Orange County, less than 2 percent) may be due to employment at one of San Diego's many military installations. In 1990, 17.2 percent of San Diego County's population was foreign-born.

In 1990, more than 25 percent of residents 5 years of age and older spoke a language other than English at home. Of those, 64.1 percent spoke Spanish, and 35.9 percent spoke a language other than English or Spanish (United States Census Bureau 1990b).

Linguistic diversity is also reflected within the schools in the region. The majority of LEP students in San Diego County public schools speak Spanish—mirroring the languages spoken at home—or a selection of other languages, such as Pilipino (Tagalog), Vietnamese, Lao, and Khmer *(fig. 4)*. In 1997-98, 22.1 percent of San Diego's public school students were LEP.

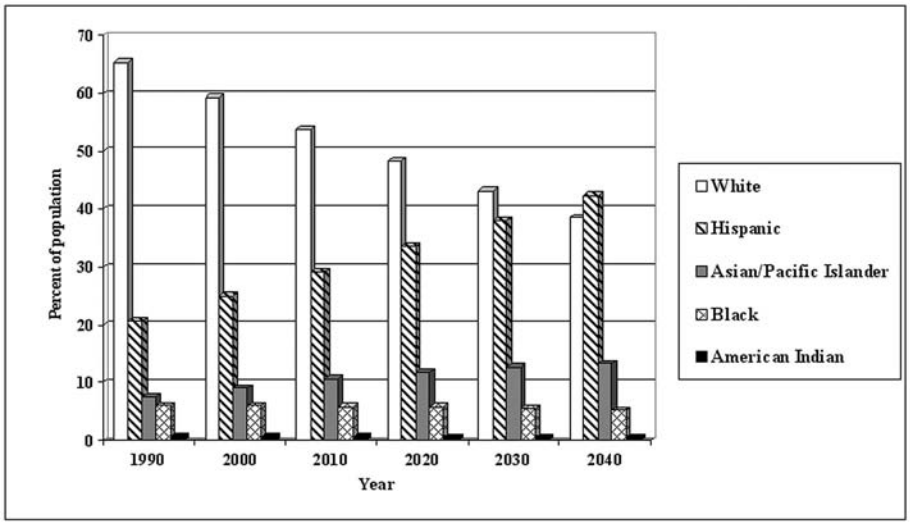
Projected Ethnic and Racial Diversity—Beyond increases in overall population, there are two overall trends in San Diego that are projected through 2040: a substantial decrease in the White population as a proportion of the total population and an increase in the Hispanic population as a proportion of the total population (*fig. 5*). These trends reflect an increasingly diverse population in the region.

The Hispanic population is not expected to surpass the White population as a proportion of the total population until 2040. Asians are expected to increase their proportion of the population by almost 6 percent through the forecast period, while Blacks and American Indians are expected to decrease as a proportion of the total population (*table 6*).



Source: California Department of Education 1998b

Figure 4—Limited-English-Proficient (LEP) students in San Diego County public school districts, by language, 1997-1998.



Source: State of California Department of Finance 1998

Figure 5—Racial and ethnic diversity trends for San Diego County.

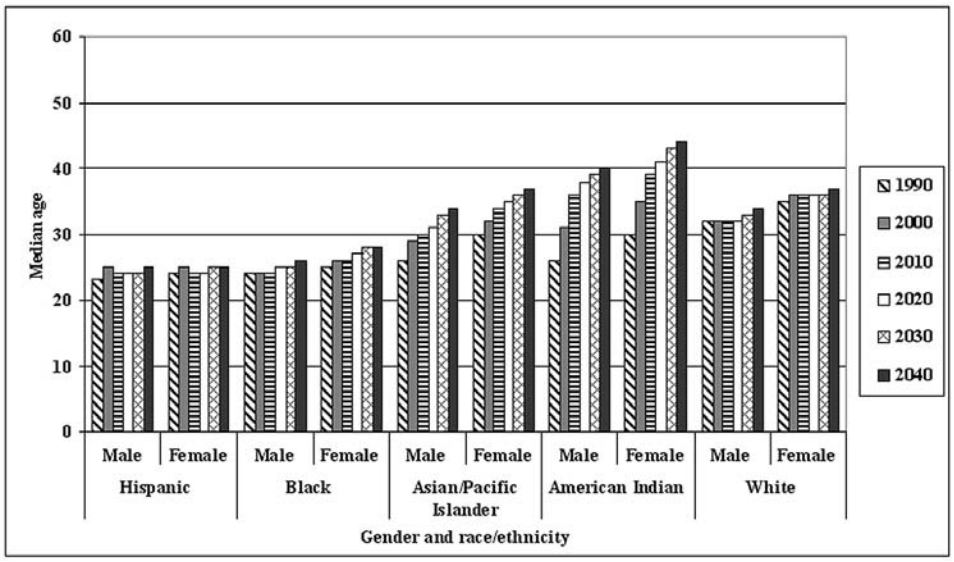
Table 6—*Percent race/ethnicity and percent change in San Diego County, 1990-2040.*

Racial/ethnic group	1990	2000	2010	2020	2030	2040	Cumulative percent change
	Year						
White	65.37 -	59.31 (-6.06)	53.80 (-5.51)	48.36 (-5.44)	43.22 (-5.15)	38.58 (-4.63)	-26.78
Hispanic	20.57 -	25.02 (4.44)	29.14 (4.13)	33.57 (4.42)	38.07 (4.51)	42.40 (4.33)	21.83
Asian/Pacific Islander	7.45 -	9.07 (1.62)	10.65 (1.58)	11.78 (1.13)	12.73 (0.95)	13.34 (0.61)	5.89
Black	6.01 -	6.05 (0.04)	5.90 (-0.15)	5.82 (-0.08)	5.55 (-0.27)	5.30 (-0.26)	-0.71
American Indian	0.60 -	0.55 (-0.05)	0.51 (-0.04)	0.47 (-0.03)	0.43 (-0.05)	0.38 (-0.05)	-0.23

Source: State of California Department of Finance 1998

In addition to the projected changes in race and ethnicity, changes in the population's median age are projected. Projected median age for San Diegans varies by race/ethnicity and gender. Overall, females have higher median ages across the forecast period. American Indians have the highest median age in San Diego through the forecast period, increasing from an average of 28 to 42, followed by Asians (increasing from 28 to 35.5) and Whites (from 33.5 to 35.5) (*fig. 6*). The youngest median ages through the forecast period are for Blacks (increasing from 24.5 to 27) and Hispanics (from 23.5 to 25). Although the median age in the region is increasing, Hispanics are projected to have the youngest age structure and the largest share of children of any ethnic group (San Diego Association of Governments 1999a). These increases in median age are smaller increases than what is projected for the whole assessment area, and median ages are lower in the county across all ethnic/racial groups.

Figure 6—Median age by gender and race/ethnicity, San Diego County, 1990-2040.



Source: State of California Department of Finance 1998

Development and Real Estate

The majority of construction in the region has occurred in incorporated areas (*fig. 7*). The late 1980s showed a dramatic decline in construction, followed by a slow upward trend beginning in 1994. Non-residential construction in unincorporated areas remained at a low level throughout 1987 to 1998. As build-out is reached, there may be pressure to develop in unincorporated areas.

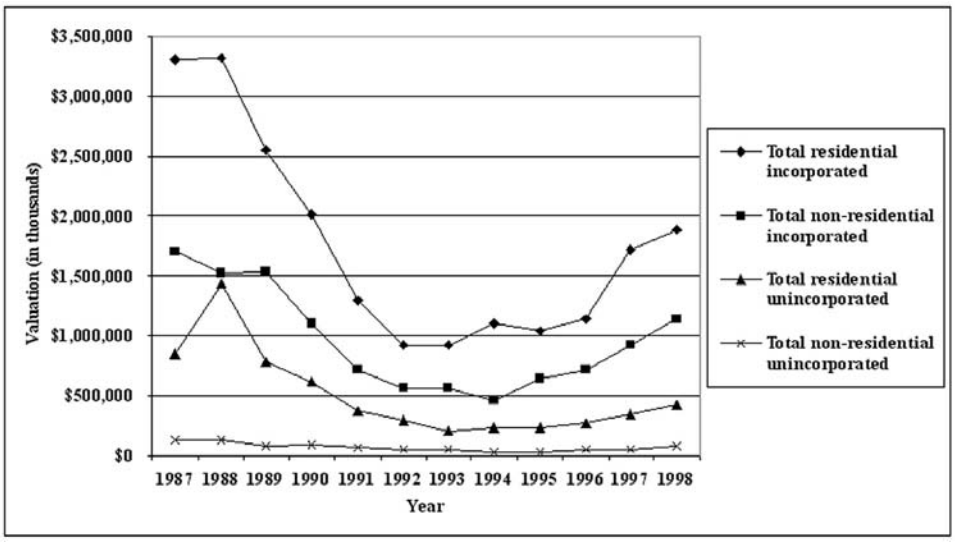


Figure 7—Building trends, San Diego County, in 1998 dollars, 1987-1998.

Source: Construction Industry Research Board 1988-1999

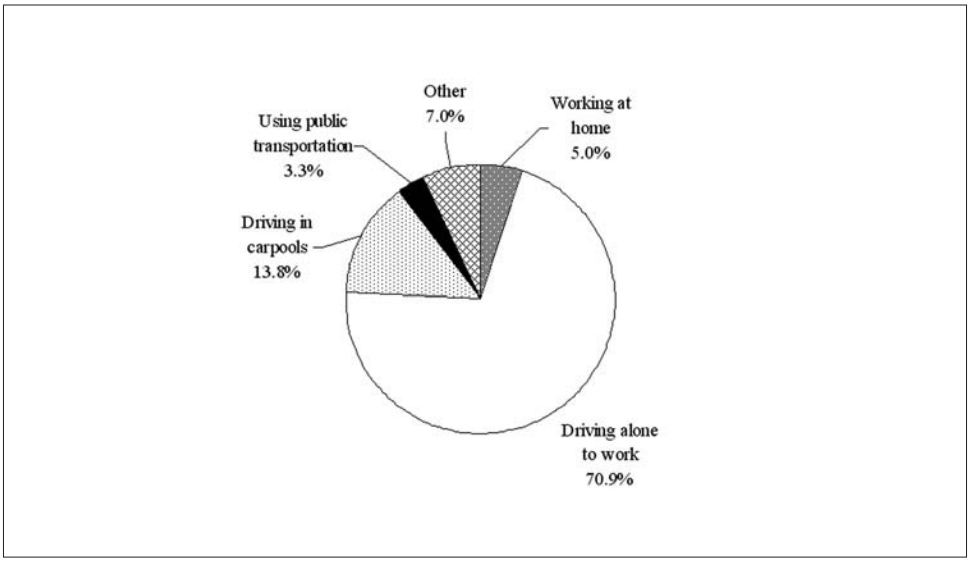
Even though population growth slowed relative to growth in the region during the 1970s and 1980s, current growth has significantly outpaced housing development. During the 1970s, the region built, on average, one new housing unit per every 1.9 residents. The ratio dropped to one new unit for every 2.8 new residents in the 1980s and slowed even more in the 1990s, to one unit for every 4.5 new residents. The 1998 ratio was one unit per 5.2 new residents. As a result, the region's average household size continues to climb (San Diego Association of Governments 1999c). This discrepancy between population growth and home construction could result in a housing crisis for the region (San Diego Association of Governments 1999c).

In 1990, San Diego County had 887,403 households and 946,240 housing units. The vast majority (93.8 percent) of housing units were occupied, and only 6.2 percent were vacant (United States Census Bureau 1990a). Of the occupied housing units, a slight majority (53.8 percent) were owner-occupied, and 46.2 percent were renter-occupied (United States Census Bureau 1990a). The median value of the owner-occupied housing units in 1990 was $186,700, and the median rent was $611 per month.

Quality of Life Indicators

Transportation, Commuting, and Employment—In 1990, there were 1,230,446 workers age 16 and older in San Diego County, and an average of 1.8 vehicles per household. Few residents (3.4 percent) worked outside the county. The majority (71 percent) drove to work alone, although some carpooled to work (14 percent) (*fig. 8*). Very few used public transportation. The average travel time to work was 22.2 minutes, which was slightly less than the average commute of 24.8 minutes for workers in the neighboring SCAG region.

Figure 8—Commuting patterns, workers 16 and older, San Diego County, 1990.



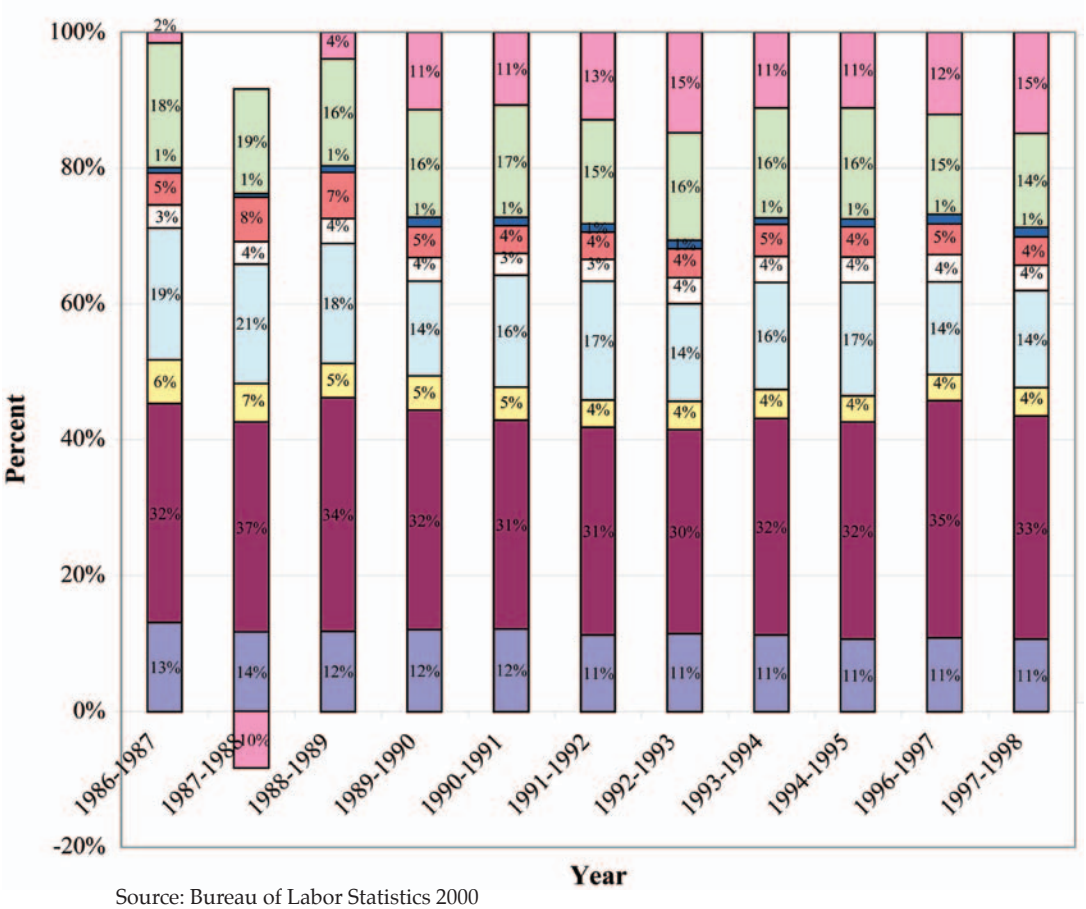
Source: United States Census Bureau 1990b

San Diego has an export-driven economy. Export-driven businesses have replaced manufacturing as a major component of industrial output. The manufacturing sector once comprised about 30 percent of the region's employment, but today it has dropped to less than 15 percent of total employment (San Diego Association of Governments 1998b). The former reliance on aerospace and defense is being replaced with emerging jobs in industries such as software, communications, and biotechnology (San Diego Association of Governments 1998b).

The San Diego region has 16 industry clusters that serve as engines of growth. According to the San Diego Association of Governments (1998b), these clusters are software and computer services, biotechnology and pharmaceuticals, computer and electronics manufacturing, communications, financial services, defense and transportation management, biomedical products, environmental technology, recreation goods manufacturing, medical services, business services, entertainment and amusement, horticulture, visitor industry services, fruits and vegetables, and uniformed military. During 1996, the 16 clusters accounted for 32 percent of the region's total employment. The visitor industry services and business services clusters employ the most workers.

Agriculture in San Diego is big business even though the region is urbanizing. The top five commodities are nursery and greenhouse crops, fruits, vegetables, poultry, and dairy products. The market value of agricultural products sold increased 27 percent to $632,731,000 from 1992 to 1997 (United States Department of Agriculture 1997). However, the number of full-time farms in the county decreased 8 percent from 1992 to 1997 (United States Department of Agriculture 1997).

Most of the growth in the county through 2020 will occur in the north inland, north coastal and south bay portions of the county and will be captured by such cities as Carlsbad, San Marcos, and Chula Vista (San Diego Association of Governments 1999d). The growth in the northern portion of the county is due to the concentration of cluster employment. For instance, Carlsbad has three times the regional average in employment in the recreational goods manufacturing cluster. San Marcos has three times the regional average in employment in the environmental technology cluster. The city of San Diego, however, contains the majority of the region's employment opportunities and will remain a strong economic force.



Source: Bureau of Labor Statistics 2000

Figure 9—Average annual expenditures as a percentage of income before taxes, San Diego Metropolitan Statistical Area, 1986-1998 (no data for 1995-1996).

Cost of Living/Expenditures—Overall, percent of annual income that residents expended for various items did not change much for the 1986 to 1998 period (*fig. 9*). The years 1987 and 1988 were an aberration for the state as well as the county. San Diego residents spent 10 percent more than their income in 1987 and 1988. During this time, savings disappeared as residents spent more on other items.

Education—San Diego County serves the largest number of students in its elementary schools (*table 7*). The county also has more elementary schools (386) than middle and high schools (80 and 63, respectively). Average enrollment per school is greatest at the high school level, which is the pattern across the assessment area and all counties. San Diego serves about 9 percent of the assessment area's school enrollments. County schools have the second highest enrollment overall (exceeded only by Los Angeles), yet they are fifth in highest average enrollment per school. Students in 2nd through 11th grade were tested using the Stanford 9 at 504 of the county schools. San Diego's ranking in academic performance for 1999 was a mean of 7.28 out of 10 (based on the similarity index, www.cde.ca.gov), indicating higher-than-average performance than similar schools. Although 6.2 percent and 11 percent of schools in the county performed well below or below average compared to similar schools, an impressive 42.8 percent were well above average and 25.2 percent were above average. This county has the highest academic performance based on the average similarity index of all 26 counties in the assessment.

Table 7—*Enrollment and number of schools, San Diego County, 1998-1999.*

Type of school	Total enrollment	Percent of total enrollment	Number of schools	Average enrollment/school
Elementary	249,345	54.6	386	646
Middle/Junior High	85,367	18.7	80	1,067
High School	121,758	26.7	63	1,933
Total	456,470	100.0	529	_

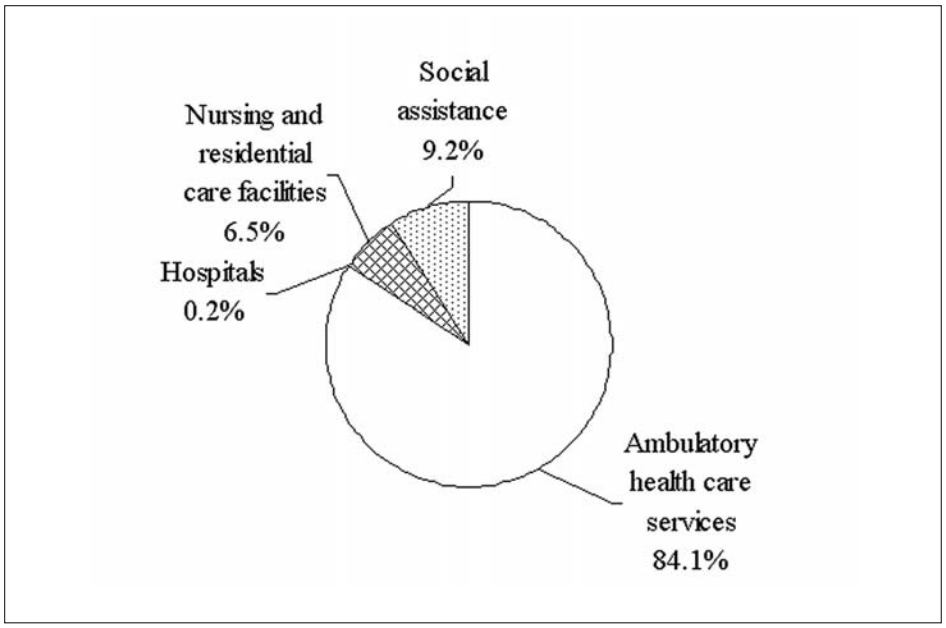
Source: California Department of Education 1998a

Health Care—The largest number of health care establishments in the county deliver ambulatory health care services, followed by social assistance, nursing and residential care, and hospital care *(fig. 10)*. The county has 33 hospitals, representing 8.3 percent of the assessment area's total hospitals (ahd.tool.net/list.php3/mstate=ca). Slightly more than half (51.5 percent) of the hospitals are nonprofit, with the balance classified as county (18.2 percent), Federal (9.1 percent), or for-profit (21.2 percent) facilities. For those hospitals with reported data (27 hospitals), a total of 6,410 beds and 1,407,045 total patient days were recorded in 1999. The county ranked third in number of hospitals, comparable to its third-place ranking in population. *U.S. News & World Report* ranked UCSD Medical Center 8th in the treatment of respiratory disorders and 34th in rheumatology nationwide (www.usnews.com/usnews/nycu/health/hosptl/metro.htm#).

Recreation and Tourism—Among the assessment area's 26 counties, San Diego ranked second in the 1997 economic census in accommodations and food services, and third in arts, entertainment, and recreation (United States Census Bureau, 1999b, 1999c). A total of 5,426 accommodation and food-services establishments, with $4,237,852,000 in receipts, was reported. Arts, entertainment, and recreation services involved 574 establishments, with receipts totaling $946,890,000.

San Diego County offers a number of special sites for recreation and tourism. Within the county, opportunities include the Cleveland National Forest, three state parks, seven beaches, two state historic monuments and one state reserve (www.wildernet.com). The Anza-Borrego Desert State Park is known for its spring

Figure 10—Health care and social assistance establishments, San Diego County, 1997.



Source: United States Census Bureau 1999a

wildflowers, as well as camping and hiking opportunities. Corral Canyon and the Ocotillo Wells State Vehicular Recreation Area offer off-roading opportunities. Hikers seeking views of waterfalls can visit the Holy Jim, Ortega, and Tenaja Falls on the Cleveland. The Pacific Crest Trail crosses the Cleveland National Forest as it traverses the U.S. from Mexico to Canada. The world-renowned Palomar Observatory is also located in the county (www.wildernet.com). Finally, the San Diego Zoo, the San Diego Wild Animal Park, Sea World, and Legoland are significant tourist draws (www.sandiegoadventures.com/site/themeparks.cfm). With a relatively mild climate, tourism is popular year-round.

Environmental Indicators

Water Quality—San Diego County crosses five watersheds: Aliso-San Onofre, which spans south Orange County and north San Diego County; Santa Margarita, which includes Camp Pendleton east to Temecula; San Diego, which includes the city of San Diego; Cottonwood-Tijuana, which includes Imperial Beach; and Salton Sea, which includes the city of Banning south to Calexico (www.epa.gov/surf3/surf98/county.html). (Watersheds frequently cross county boundaries. Therefore, some counties may include watersheds that are also located in other counties.)

The Salton Sea watershed was assigned a "5" by the Environmental Protection Agency (EPA), indicating "more serious water quality problems but low vulnerability to pollution stressors." (According to the EPA's Index of Watershed Indicators procedures, a pollution stressor includes aquatic/wetland species at risk, toxic loads above limits, urban runoff potential, agricultural runoff potential, population change, hydrologic modification, estuarine pollution susceptibility, and atmospheric deposition.) The San Diego watershed was assigned a "2," indicating a "better water quality but high vulnerability to pollution stressors." Aliso-San Onofre and Cottonwood-Tijuana were both assigned a "1," representing "better water quality and low vulnerability to pollution stressors." Data are not available for the Santa Margarita watershed.

Air Quality—San Diego County has the second largest population of the 26 counties, paired with the second highest emissions from all categories (*table 8*). The majority of emissions are projected for significant or marginal decreases dependent upon emission type. Particulates are expected to increase, primarily from area-wide sources, according to the California Air Resources Board (1999).

Table 8—*1996 estimated and 2010 forecasted annual average emissions, San Diego County (cells do not add to column totals due to rounding error).*

Year	Emission category	Emission type[1]						
		TOG	ROG	CO	NOx	SOx	PM	PM10
1996	Stationary	270	45	21	16	3	15	7
	Area-Wide	71	45	120	4	0	180	92
	Mobile	160	150	1,300	200	8	10	9
	Natural	6	4	67	1	-	11	10
	Total	510	240	1,500	220	11	210	120
2010	Stationary	340	60	25	13	4	19	10
	Area-Wide	75	48	100	6	0	230	120
	Mobile	69	64	680	130	8	10	8
	Natural	7	4	67	1	-	11	11
	Total	490	180	870	150	12	270	150

Source: California Air Resources Board 1999

[1]TOG: total organic gases; ROG: reactive organic gases; CO: carbon monoxide; NOx: nitrogen oxides; SOx: sulfur oxides; PM: particulate matter; PM10: particulate matter less than or equal to 10 microns (*appendix D*).

Summary and Implications for the SANDAG Region

The pace and shape of growth in the region will depend on the development of transportation routes, the availability of water, and economic growth. SANDAG predicts that the pace of road construction will accelerate between 1999 and 2005 as the region builds linkages between the central San Diego and east-county communities. With Interstates 5 and 15 as the major north-south routes, the county has been focusing on strengthening east-west linkages between these two routes and further east into inland portions of the county. There is also growing recognition that Route 905 along the international border is an important freight route between Mexico and the U.S. and that its extension will be an important economic consideration for the county. According to the San Diego Association of Governments (1999b), "...the daily number of cars and trucks crossing the border (in both directions) between San Diego and Tijuana is about 110,000 vehicles and growing." The agency also predicts that between 1999 and 2005, the county will spend $4.5 billion on the regional transportation system, not counting the money spent on local streets and roads. These transportation investments are considered investments in the economy.

In addition to transportation, the availability of water is a factor influencing the future growth in the region. More than 90 percent of San Diego's water is imported from the Colorado River and northern California (Intertec Publishing Corporation 1997). San Diego County Water Authority successfully negotiated a water deal with the Imperial Valley Irrigation District in which the Imperial Valley Irrigation District agreed to sell 200,000 acre-feet of surplus water from the Colorado River each year to San Diego County. According to an article in *Economist* (1998), Imperial Valley Irrigation District buys the water for agricultural use at $12.50 an acre-foot, but will sell each acre-foot to San Diego for $245. The impetus for this agreement came from the Metropolitan Water District's (MWD) plan to cut San Diego's water supply in half in 1992 after a 2-year drought. In order to avert such events in the future, San Diego County water officials decided to find an alternative water supply. The water will travel through aqueducts owned by MWD. MWD asked $230 for every acre-foot piped through their aqueducts, a price that made the deal uneconomic. In the summer of 1998, the state legislature earmarked $235 million from the state budget to line the aqueducts with concrete—just enough to cover the amount requested by MWD to transfer water to San Diego. This water plan is being challenged by the Coachella Valley in Riverside County, which wants an additional 170,000 acre-feet of water from the Colorado River. Because of San Diego's reliance on imported water, water-related developments may heavily influence the future growth that San Diego County will be able to support.

Although economic growth in the 16 industry clusters will invariably affect the pace of growth and the construction of housing as workers migrate to San Diego and search for places to live, there are other economic factors with effects that cannot yet be anticipated. For example, under the Indian Gaming Regulatory Act of 1988, Native American tribes recognized by the U.S. government have the right to build casinos without regard to local land-use controls. The language of the statute explicitly states that local government regulations do not apply (Newman 1999). Both the Rincon San Luiseño and Pala Band of Mission Indians are federally recognized tribes (www-libraries.colorado.edu/ps/gov/us/fedrec.htm#List). The Las Vegas-based Harrah's has announced a joint casino venture with the Rincon San Luiseño Band of Mission Indians 35 miles northeast of San Diego. The $100 million casino and hotel development awaits passage of Proposition 1A allowing Indians to operate slot machines, card games, and possibly satellite wagering on horse races (Perry 2000). This proposed development comes just a few months after a $90-million deal with the nearby Pala Band of Mission Indians.

Housing construction may become a severe constraint on growth in the region. To keep pace with population growth, 17,000 new housing units will need to be

built each year. "The 11,200 units added in 1998 fell well short of that requirement, and it is not likely that things will change soon" (San Diego Association of Governments 1999c).

Commute times, cost of living, educational opportunities, appropriate health care, and environmental quality will continue to be important for the quality of life in the county. As housing costs in the San Francisco Bay Area, Los Angeles, and Orange County have risen, many people have flocked to San Diego County as the last reasonably priced coastal area. However, the growth that San Diego County is experiencing is in direct conflict with efforts to protect natural resources. SANDAG's approach is "smart growth," which is an effort to funnel growth toward urban areas where jobs and infrastructure already exist. Despite this effort, one of the greatest challenges in the county's future will be the protection of open space and the reduction of sprawl as San Diego grows by an estimated 1 million people by 2020.

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III. The Southern California Association of Governments (SCAG) Region

SCAG was formed in 1964 pursuant to a state government-mandated joint powers agreement between member county and city jurisdictions (Bollens 1997). SCAG has evolved into the largest of nearly 450 COGs in the United States. [This number varies depending upon the source. Levy (2000) reports 450, Bollens (1997) reports 300, and the SCAG website reports 700.] It functions as a regional planning organization for Los Angeles, Orange, San Bernardino, Riverside, Ventura, and Imperial Counties *(fig. 11)*. The region encompasses a population exceeding 15 million people in an area of more than 38,000 square miles (www.scag.ca.gov).

SCAG has three primary roles as a regional planning body: (1) Under Federal and State law, SCAG is responsible for preparing growth forecasts for the region and then drawing up a series of plans, (2) SCAG functions as the authorized regional agency for intergovernmental review of programs proposed for Federal financial assistance and development activities, and (3) SCAG initiates the development of sub-regional COGs that deal with local land use and development issues on a sub-regional (but larger than municipal) scale.

SCAG is mandated by the Federal government to research and draw up plans for transportation, growth management, hazardous waste management, and air quality in the region. In the process, SCAG develops growth forecasts to aid plan development. Other mandates for SCAG come from the State. For example, State government mandates SCAG to develop growth projections, which are used in the Regional Housing Needs Assessment. The State requires that each municipality provide its fair share of affordable housing based on population size, income level, and income distribution. SCAG works with the State Department of Housing and Community Development to determine each city's "fair share."

SCAG also functions as the authorized regional agency for intergovernmental review of projects proposed for Federal financial assistance. Thus, if Federal money is set aside for a transportation project in the region, the funds are allocated through SCAG after its review and approval of the project. SCAG's power derives from its role in the allocation of Federal and State funds as well as through the publication of growth forecasts and plans for the region. A perception by local government is that once SCAG publishes a plan, the ideas earn legitimacy and may be used by other arms of the Federal government to require counties and cities in the region to provide facilities they did not intend to provide (Fulton 1997).

Currently, there is debate in the SCAG region regarding the 1998 Adopted Forecast. SCAG forecasts 22.3 million people, 10.6 million jobs, and 10.2 million employed people in the region by 2020. The sub-regional COG effort is to reduce the forecast by one million people and one million jobs. If SCAG reduces the forecast, the next issue will be how those numbers are re-allocated to the sub-regions (Choi 1999, Schuiling 1999). Counties that do not agree with SCAG's current forecasts have hired economists and demographers to develop alternative projections that they believe more accurately reflect economic conditions. Since job projections drive population projections (Schuiling 1999), economists at the Center for the Continuing Study of the California Economy have been contacted by some sub-regional COGs to help in developing revised numbers for the region.

SCAG tries to reduce the gap between their population projections and DOF

projections, but the fact that economic forecasts are used by SCAG in their forecasts and are not used by DOF accounts for at least some of the disparity in the two sets of numbers for each county. The less influence economic variables have in a forecast, the higher the population projection will be (Schuiling 1999). In other words, the availability of jobs acts as a cap on population growth. Generally, people will not stay where they cannot find jobs and people will migrate to places where there are jobs (*appendix C* has a more detailed discussion of DOF methodology; *appendix E* provides more detail on SCAG population projections).

The debate over population projections has become a highly politicized negotiation process (Community, Economic and Human Development Committee 1999). If local agencies disagree with SCAG projections, they must try to persuade SCAG that their own projections are more accurate. If the local agency and SCAG

Figure 11—The Southern California Association of Governments (SCAG) region is a six-county region in southern California (shaded area).

Source: 50 Individual States—Counties 1995

cannot reach agreement, the local agencies can enter into an alternative dispute resolution (ADR) process. Even when matters do not reach ADR, agreement on projections is negotiated. The process is intended to be collaborative, but it is complex. Because SCAG is dependent on voluntary local membership, SCAG must yield to some extent or risk eroding its credibility, which would cause the State and Federal governments to withdraw financial support. Cities and counties also have an interest in persuading SCAG to adopt their point of view. If they are unsuccessful, they could risk Federal or State money for certain projects in their jurisdictions. Additionally, they could find themselves responsible for providing a larger share of affordable housing than they may deem equitable given their population size, income level, and income distribution.

SCAG faces a number of challenges operating as a regional agency in a politically and spatially fragmented region. Despite its restructuring in 1992 and its involvement in many Federal and State programs, "SCAG faces two significant obstacles to becoming an effective regional governing body: (1) the size and diversity of its jurisdiction, and (2) its relationships with single purpose regional agencies" (Bollens 1997, p. 116). The diversity of the region and its constituency raise questions about how responsive a large COG can be to sub-regional needs and differences. A report by the Governor's Interagency Council on Growth Management concluded that "super-regional COGs are too large to allow for direct regional representation and participation" (Cox and Whiteside 1991, p. 21). SCAG has faced challenges in convincing a politically fragmented and vast region that a regional approach to planning is worthwhile. Residents of Ventura County, 40 miles north of Los Angeles, do not necessarily have the same interests or share common concerns with Imperial County residents, 200 miles southeast, and vice versa.

In recognition of its diverse constituency and the corresponding challenges, in the early 1990s SCAG proposed the designation of sub-regions that would develop plans and submit them to SCAG. SCAG would then negotiate with local governments, sub-regions, and agencies to ensure conformity and consistency. As described in a Governor's Interagency Council on Growth Management report, "the SCAG approach is partly an effort in self-preservation and partly an effort to take an organization with 25 years of experience and reshape its role to meet the current needs of the region" (Cox and Whiteside 1991, p. 46). SCAG is faced with the dual challenges of developing accurate population projections for the six-county region while simultaneously refining the planning process to incorporate local government input.

SCAG's effectiveness is also influenced by competition with independent single-function regional entities such as the Metropolitan Transportation Authority in Los Angeles, the Transportation Corridor Agencies in Orange County, and the South Coast Air Quality Management District. In southern California there are 72 Federal, State, and local agencies empowered to issue environmental decisions and regulations. Sixty-nine agencies are single purpose. As a result, local interests supersede regional needs (Cox and Whiteside 1991). Each of these agencies has been successful in obtaining a separate funding source or increased statutory authority. Furthermore, population-based disbursement of Federal transportation money from SCAG to county transportation commissions as mandated by the 1991 Intermodal Surface Transportation Efficiency Act has eroded SCAG's authority as the metropolitan planning organization for the Los Angeles region (Bollens 1997).

Transportation

Traffic congestion is one of southern California's greatest challenges (Southern California Association of Governments 1999a). The primary mode of travel in the region is commuters driving alone. According to the 1998 State of the Commute Survey conducted by SCAG, 83 percent of Whites and 80 percent of Asians drove alone to work on a regular basis compared to 71 percent of African Americans and

69 percent of Hispanics. Findings reveal that Los Angeles County has the lowest drive-alone rate, and Orange County has the highest. Residents in San Bernardino and Riverside Counties spend the most time commuting and travel the farthest, while Imperial County residents spend the least amount of time commuting and travel the shortest distances. Orange County has the highest rate of High Occupancy Vehicle lane availability but the lowest carpooling rate. Los Angeles County residents are the least likely to commute to another county to work. Overall, commuters in the SCAG region exceed the nationwide numbers on most measures, especially on commute travel time and commute trip length.

Because there is so much Federal and State open space in the SCAG region, SCAG has identified access routes to this land and the transportation issues affecting those resources (Southern California Association of Governments 1999b). National Forest land accounts for 1.9 million acres of land in the SCAG region, National Park Service land is 700,000 acres, Bureau of Land Management land is 10 million acres, and State open space totals 400,554 acres (Southern California Association of Governments 1999b). SCAG found that in 1994, visitors experienced varying degrees of congestion in reaching Federal open space destinations (Southern California Association of Governments 1999b). If those improvements currently programmed in the 1998-2004 Regional Transportation Improvement Program are made, Imperial County will meet plan goals, but the congestion will worsen significantly in other areas of the region. Specifically SCAG projects that access to the Los Padres National Forest will worsen along Routes 23, 126, and 150 in Ventura County. Severe congestion, especially along Routes 74, 79, 91, and Route 18 east of Route 15 will affect travel to the Cleveland National Forest. In San Bernardino County, access along Routes 18, 38, 138, and 330 will deteriorate. In Los Angeles County, congestion on Routes 2, 5, 14, and 39 will slow travel to the Angeles National Forest. In Orange County, congestion along Route 74 will worsen with completion of the Foothill Toll Road. In Riverside County, congestion on Route 74 east of Route 215 will remain severe. On Route 79 north, hot spots will exist south of Route 74. On the southern leg of Route 79, a hot spot will exist at the junction of Route 215.

Given the projected growth in the region, there are implications for protection of and access to open space. With population increases come potential increases in demand for access to recreation areas. Demand for open space is expected to occur in the Inland Empire where much of the open space is located and where a large share of the region's population growth is expected to occur (Southern California Association of Governments 1999b). As a result of the growth in population, SCAG expects significant development pressures on vacant lands. Areas of further investigation include the need to address the availability of public and private transit services to open space and recreation areas, access to open space across socioeconomic groups, access to regional and local open space, and access to private open space and recreation areas in the region.

Cost of Living/Expenditures

Cost of living data are available for the Los Angeles metropolitan area. The percent of annual income that residents expended for various items did not change much between 1986 and 1998 (*fig. 12*). Residents spent approximately one-third of their income on housing. The next largest expenditures were for transportation and "other." "Other" includes alcoholic beverages, personal care products and services, reading, tobacco products and smoking supplies, miscellaneous, cash contributions, and personal insurance and pensions. The period from 1987 to 1988 was an aberration for the State and the county because of the recession. Los Angeles metropolitan area residents had the least amount of savings during that time, and they spent a greater portion of their income on housing (35 percent) compared to other years (which ranged from 29 to 33 percent).

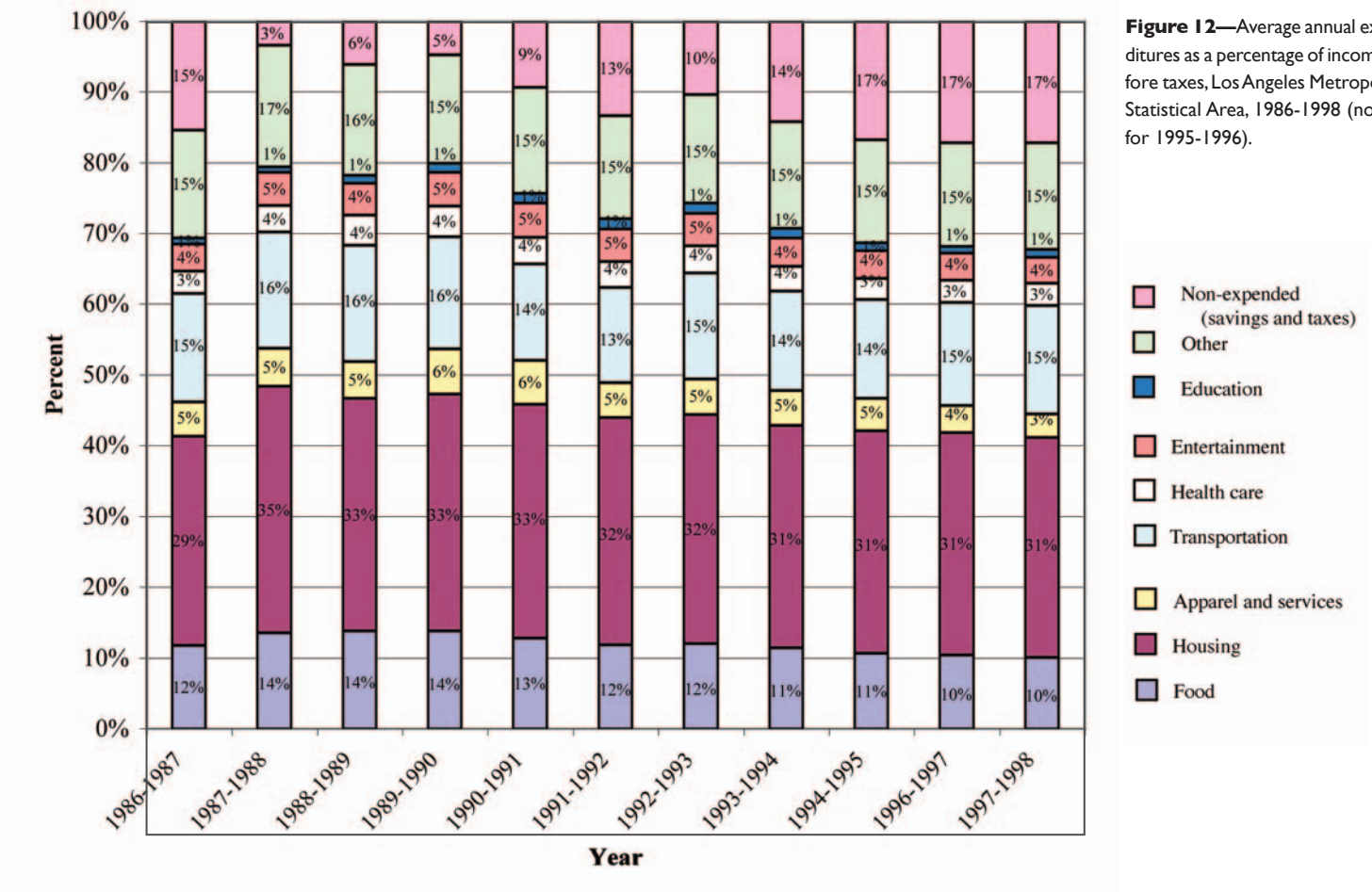

Figure 12—Average annual expenditures as a percentage of income before taxes, Los Angeles Metropolitan Statistical Area, 1986-1998 (no data for 1995-1996).

Source: Bureau of Labor Statistics 2000

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Imperial County

- This is an agricultural county with a history of water importation from the Colorado River.
- There is potential for extensive population growth and development.
- Historically there has been high unemployment in the region.
- The county has extensive economic and cultural ties with Mexico.
- There are a number of natural attractions such as the Glamis Sand Dunes, the Salton Sea, and Mineral Hot Springs.

History

Imperial County is located in the southeast corner of California *(fig. 13)*. It is bordered on the west by San Diego County, on the north by Riverside County, on the east by the Colorado River, and on the south by Mexico. The county covers 4,497 square miles or 2,942,080 acres. Sixty-seven percent of the land falls under Federal jurisdiction. (Primarily Bureau of Land Management and U.S. military lands.) Seven percent of the land is covered by the Salton Sea, and less than 1 percent of the land in the county is developed (0.6 percent). More than 18 percent of the land is irrigated for agriculture. Although Imperial County was the last county to be incorporated in California (1907), its history begins much earlier (County of Imperial 1993).

The history of Imperial County is the story of the struggle for water. Without access to a steady supply of water for irrigation, Imperial County would not have developed as it has. Furthermore, "the availability of water will play an important role in determining the population and economic growth of Imperial County" (County of Imperial 1993, p. 24). Both the Federal government and the private sector have been heavily involved in Imperial County's development. The Federal government made land available to settlers and the California Development Company brought water to the county.

The archeological record indicates occupancy in the region as early as 12,000 years ago. These early people occupied areas near waterways such as the Lake Cahuilla shoreline and the Colorado River region. Later groups such as the Yuman (today they identify themselves as Quechan) located along the lower Colorado River and were the first people to have contact with Europeans in California. The first European to encounter the Quechan was Hernando de Alarcon when he sailed up the Rio de los Tizones (Colorado River) in 1540. Evidence exists that the European discovery of California took place on the Imperial County shores of the Colorado River rather than the commonly held belief that Cabrillo first sighted California off the San Diego Coast (www.greencity.org/county.html). Following this early contact, missionaries in the late 1700s, and then Gold-Rush immigrants in the mid-1800s, came to the region. Due to the number of hostile confrontations between Gold Rush settlers and American Indians during the mid-1800s, the United States established the military fortification of Fort Yuma.

In the 19th century Imperial County held little attraction for settlers. It was primarily the stage route to San Diego, and few settlers recognized its agricultural potential. Most attempts to irrigate and develop Imperial County in the second half of the 19th century failed due to lack of funds, lack of water, and government restrictions. However, this changed when the water engineers Charles R. Rockwood and George Chaffey saw the agricultural potential of the area and organized the California Development Company in the early 1890s. To entice settlers, the developers called the newly irrigated area the Imperial Valley. In March 1900, the Imperial Land Company was formed as a subsidiary of the California Development Company to promote opportunities for agriculture and development in the Valley and to attract settlers (County of Imperial 1993). The settlers were then able to claim government land under the Desert Land Act.

The California Development Company brought the first irrigation water to Imperial Valley in 1901, with the opening of the Alamo Canal. The Alamo Canal Project spawned a series of towns and a large agricultural area in Imperial Valley. From 1901 to 1905, Imperial Valley developed rapidly as more land was cleared and more irrigation and drainage ditches were completed. By 1907, Imperial Valley had attracted enough population to incorporate as a separate county from San Diego. A faulty canal on the Colorado River caused disastrous flooding in the Imperial Valley between 1905 and 1907, inundating the new and valuable agricultural lands and creating the Salton Sea. Following a monumental effort by the California Development Company and the Southern Pacific Company, the flooding was stopped. Major improvements to the canal system were needed, and by 1916, the Imperial Irrigation District had bought the rights and property of the California Development Company and the Southern Pacific Company. The All-American Canal was completed in 1941, ensuring a reliable source of water.

Figure 13—Imperial County (shaded area) is in the southeast corner of California.

Source: 50 Individual States—Counties 1995

Imperial County Today

Sociodemographic Characteristics

Projected Population—As of 1994, 75 percent of the county's population was concentrated in the seven incorporated cities of Brawley, Calexico, Calipatria, El Centro, Holtville, Imperial, and Westmoreland. Population in unincorporated areas tends to concentrate in agricultural areas (e.g., Heber, Niland, and Seeley) and in recreation/retirement communities (e.g., Salton Sea Beach, and Desert Shores). The recreation/retirement communities experience a noticeable increase in population during the winter months when visitors converge on the area to avoid cold, wet winters in other parts of the United States and Canada.

In the past, incorporated cities have grown at a faster pace than the rural areas of the county. Recently, residential development has increased in agricultural areas away from cities and communities. "This has created conflicts with agriculture, in spite of the county's 'Right to Farm' ordinance" (County of Imperial 1993, p. 21). Furthermore, treated water is not available in these areas and the EPA prohibited the Imperial Irrigation District from providing service to these residences using untreated canal water as of 1992. Attempts to resolve this conflict continue, including installation of in-home treatment systems.

There are three agencies that have published population projections for Imperial County: DOF, SCAG, and the Imperial Valley Association of Governments (IVAG). DOF projects the largest population increases in the county. SCAG has the next highest projections, and IVAG the lowest *(table 9)*.

Table 9—*Population projections, Imperial County, 1990-2040.*

Source	1990	1994	2000	2005	2010	2015	2020	2030	2040
U.S. Census	109,303[1]	-	142,361	-	-	-	-	-	-
DOF	110,749[2]	-	154,549	-	221,585	-	298,700	394,008	504,220
SCAG[3]	109,303	138,470	148,980	171,772	207,305	240,812	280,341	-	-
IVAG	-	131,103	164,727	-	206,267	233,238	261,735	-	-

Source: United States Census Bureau 1990a and 2000, State of California Department of Finance 1998, Southern California Association of Governments 1998, Imperial Valley Association of Governments 1996

[1] Data from April 1.

[2] Data from July 1.

[3] Projections from SCAG are subject to change, based on the agency's final numbers, not yet finalized.

Although it is not unusual for each agency to have different population projections, the primary discrepancy between the SCAG and IVAG numbers centers on how much the population is likely to grow in incorporated versus unincorporated areas of the county *(table 10)*. Each agency makes different assumptions regarding land use that affect population projections. For example, DOF and SCAG do not take local land-use decisions into account (i.e., zoning restrictions, build-out capacity, environmental constraints, etc.) that may affect growth and development. As an example of this discrepancy, SCAG projects that 42.7 percent of the county's population will be in unincorporated areas in 2020. In comparison, IVAG projects 17.9 percent in unincorporated areas at that time. SCAG and IVAG population figures for 1994 differ by 7,367 persons, but future projections diverge by as much as 18,606 persons.

The cities in Imperial County differ in their degree of agreement with SCAG or IVAG projections. The city of Brawley's projections agree with SCAG's population projections, but IVAG may be more accurate with regard to economic forecasts. SCAG's year 2000 projected population of 22,586 is in alignment with the city's

current population (Stillman 1999). The cities of Calipatria and Westmoreland's projections also agree with SCAG numbers. Smaller cities in Imperial County show less variation in population projections through time because, unlike larger cities, they do not have large surrounding areas available for annexation (Arce 1999). Annexation introduces a greater potential for disagreement in population projections because population growth depends on the rate and extent of annexation. Finally, El Centro is in agreement with SCAG numbers, which are the lower ones for the city. El Centro had a population of 37,827 in 1999, which is much closer to SCAG's projected population for the year 2000 than IVAG's. If El Centro grows at the expected annual rate of 2.5 percent a year, the city's population will be higher than SCAG projections, but lower than IVAG's.

Table 10—*Population projections from IVAG and SCAG by city in Imperial County, 1990-2020.*

City	1990	1994	2000	2005	2010	2015	2020
	----------	----------	----------	Year	----------	----------	----------
Brawley	**18,923**	**21,738**	**22,586**	**24,425**	**27,294**	**29,998**	**33,187**
	-	21,150	29,547	-	38,520	43,260	48,276
Calexico	**18,633**	**28,703**	**30,081**	**33,070**	**37,727**	**42,120**	**47,302**
	-	23,063	31,112	-	40,328	45,291	50,542
Calipatria	**2,690**	**5,028**	**5,332**	**5,992**	**7,020**	**7,990**	**9,134**
	-	5,028	8,984	-	13,400	15,566	17,102
El Centro	**31,384**	**36,717**	**37,089**	**37,897**	**39,156**	**40,342**	**41,743**
	-	35,729	42,068	-	55,018	62,918	71,953
Holtville	**4,820**	**5,576**	**5,631**	**5,750**	**5,935**	**6,110**	**6,317**
	-	5,425	6,047	-	6,060	6,746	7,511
Imperial	**4,113**	**6,121**	**7,137**	**9,338**	**12,770**	**16,007**	**19,825**
	-	6,121	9,828	-	12,466	14,000	15,624
Westmoreland	**1,380**	**1,603**	**1,702**	**1,918**	**2,254**	**2,570**	**2,944**
	-	1,603	2,356	-	2,763	3,356	3,971
Unincorporated	**27,360**	**32,984**	**39,422**	**53,382**	**75,149**	**95,675**	**119,889**
	-	32,984	34,786	-	37,713	42,101	46,756
Total	**109,303**	**138,470**	**148,980**	**171,772**	**207,305**	**240,812**	**280,341**
	-	131,103	164,727	-	206,267	233,238	261,735

Sources: Figures in bold typeface from Southern California Association of Governments 1998. Figures in regular typeface from Imperial Valley Association of Governments 1996.

Calexico's General Plan outlines different growth scenarios depending upon an annual growth rate of 3, 5 or 6 percent. However, population increases in Calexico over the last three census periods have averaged slightly more than 3 percent a year (City of Calexico 1998). No matter which growth scenario is chosen, the city's projections are still lower than either SCAG's or IVAG's, although they are closer to SCAG's projections for the city (Ruiz 1999).

Two cities are in closer agreement with IVAG's projections. Holtville relies on IVAG numbers (Zernow 1999). Imperial agrees with IVAG projections because they are higher for the city, which has a lot of new homes being built and is annexing more land (Hisel 1999). The 1999 population estimate of 7,674 is already higher than SCAG's year 2000 projection.

The discrepancy in the figures for growth in unincorporated areas is significant because it highlights a basic disagreement about where future growth in the county will occur. Will it occur mainly in the seven incorporated cities as IVAG predicts, or will it occur primarily in the unincorporated regions of the county as SCAG forecasts? If the bulk of the growth is to occur in unincorporated regions, this will have significant implications for county government in terms of how future infrastructure will be built and how it will be financed. Furthermore, extensive

growth in unincorporated regions will most likely impact State and federally protected lands as housing and roads encroach upon previously undeveloped areas.

Ethnic and Racial Diversity—The majority of residents in the county are Hispanic (*table 11*).

Table 11—*1990 and 2000 population, Imperial County.*

	1990	2000
	---------- Percent	----------
Non-Hispanic White	29.0	20.2
Hispanic all races	65.8	72.2
Non-Hispanic Black	2.1	3.6
Non-Hispanic Asian	1.5	1.7
Non-Hispanic American Indian	1.4	1.2
Non-Hispanic other	0.1	0.1
Non-Hispanic two or more races	N/A	0.9

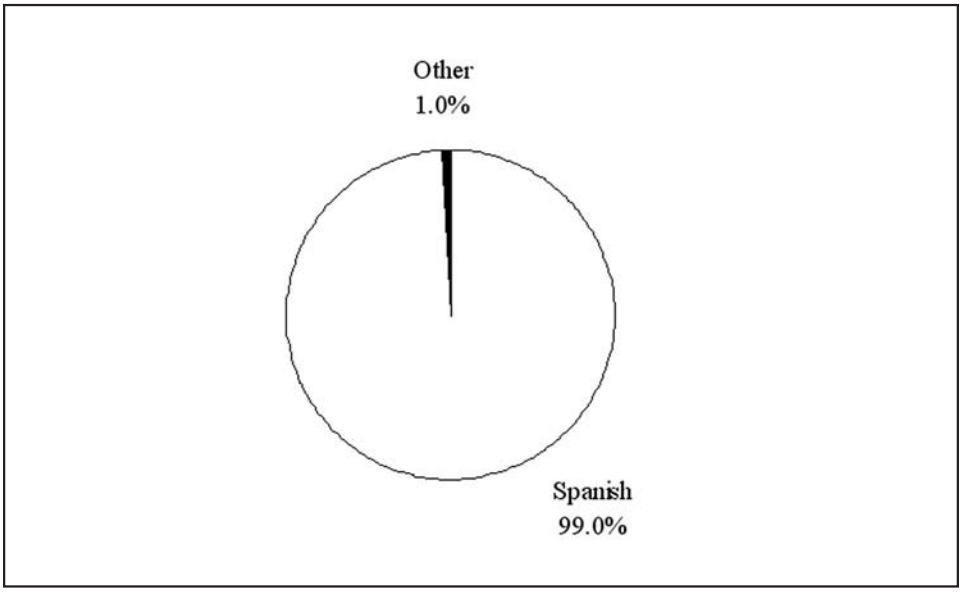
Source: United States Census Bureau 1990a, 2000

The high percentage of Hispanic residents is a reflection of Imperial County's proximity to the Mexican border and the corresponding economic interdependence between Imperial County and Mexico. In 1990, 28.9 percent of Imperial County residents were foreign-born, and almost 64 percent of county residents age 5 and older spoke a language other than English at home. Of those, 96.7 percent spoke Spanish and another 3.3 percent spoke other languages (United States Census Bureau 1990b).

The vast majority of LEP students in Imperial County public schools speak Spanish—mirroring the languages spoken at home (*fig. 14*). In 1997-98, 46.2 percent of Imperial County's public school students were LEP.

Projected Ethnic and Racial Diversity—The Hispanic population is projected to increase as a proportion of the population through 2040, and the White population is expected to decrease as a proportion of the population (*fig. 15*). The Hispanic

Figure 14—Limited-English-Proficient (LEP) students in Imperial County public school districts, by language, 1997-1998.



Source: California Department of Education 1998b

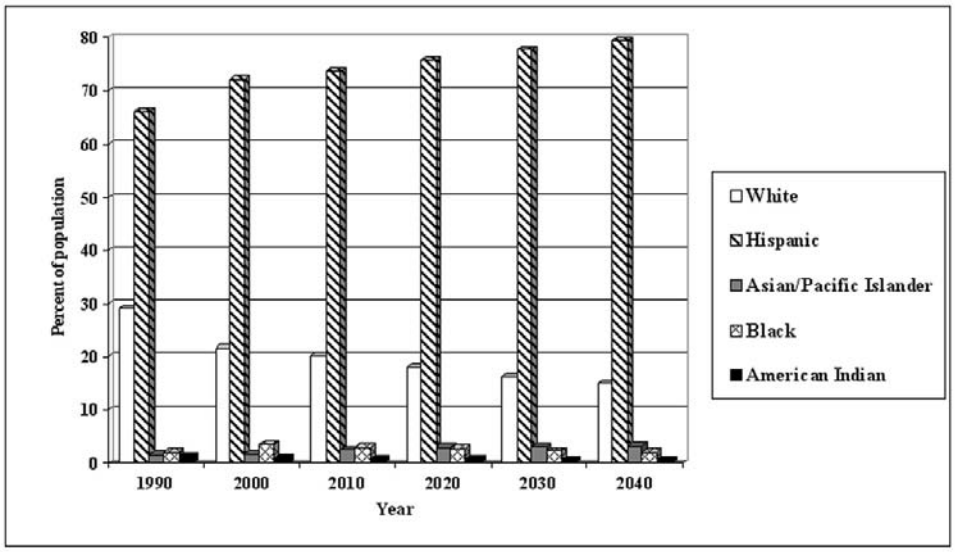


Figure 15—Racial and ethnic diversity trends for Imperial County.

Source: State of California Department of Finance 1998

population is the largest ethnic group in the county and is expected to remain the majority of the population through 2040. The Asian, Black, and American Indian populations are much smaller percentages of the total population. However, the Asian population is expected to increase slightly as a proportion of the population through 2040, while both the Black and American Indian populations are expected to decrease as a proportion of the population.

An examination of the cumulative percent change for each racial/ethnic group over the 1990 to 2040 period further clarifies this pattern (*table 12*). In Imperial County from 1990 to 2040 the largest projected declines as a proportion of the population are among Whites, American Indians, and Blacks, consecutively. The largest projected gains as a proportion of population are among Hispanics and Asians.

Table 12—*Percent race/ethnicity and percent change in Imperial County, 1990-2040.*

Racial/ethnic group	1990	2000	2010	2020	2030	2040	Cumulative percent change
	Year						
White	28.98	21.75	20.08	18.07	16.26	14.86	
	-	(-7.23)	(-1.67)	(-2.01)	(-1.81)	(-1.40)	-14.13
Hispanic	66.04	72.09	73.69	75.75	77.79	79.46	
	-	(6.05)	(1.59)	(2.07)	(2.04)	(1.68)	13.43
Asian/Pacific Islander	1.49	1.65	2.47	2.91	3.14	3.21	
	-	(0.16)	(0.82)	(0.45)	(0.22)	(0.08)	1.72
Black	2.07	3.55	2.99	2.62	2.29	2.03	
	-	(1.48)	(-0.56)	(-0.37)	(-0.33)	(-0.26)	-0.04
American Indian	1.42	0.96	0.77	0.64	0.53	0.43	
	-	(-0.46)	(-0.19)	(-0.13)	(-0.12)	(-0.09)	-0.99

Source: State of California Department of Finance 1998

Paired with the projected changes in ethnic and racial diversity in Imperial County, the populations' median age is expected to change. The median age for American Indians in Imperial County shows the greatest increase through the forecast period, increasing from an average of 25.5 to 54, followed by Asians (36.3

to 38.5) *(fig. 16)*. The youngest median ages through the forecast period are for Blacks (increasing from 32 to 34.5) and Hispanics (from 23.5 to 26.5). This county is unique to the assessment area in that the White population is expected to decrease in median age over the forecast period (from 39 to 35.5).

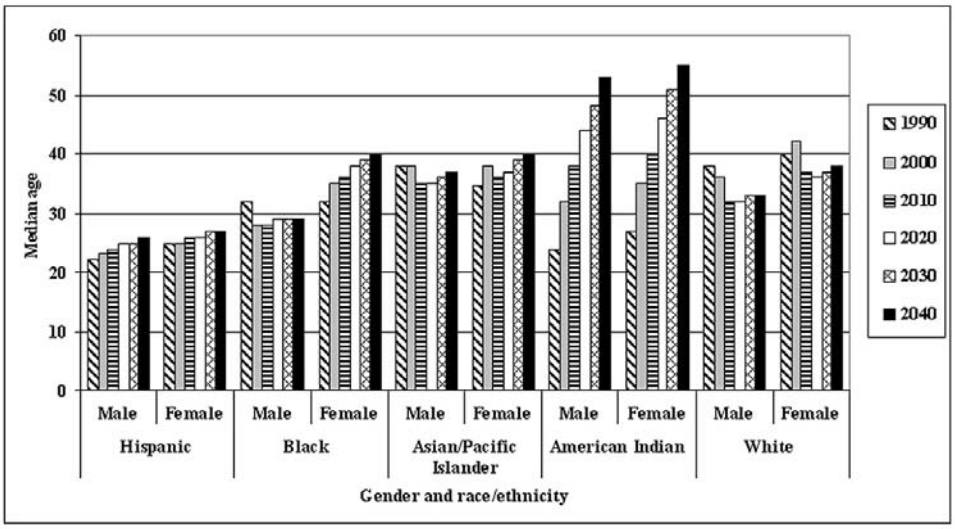


Figure 16—Median age by gender and race/ethnicity, Imperial County, 1990-2040.

Source: State of California Department of Finance 1998

Development and Real Estate

Building trends in Imperial County from 1987 to 1998 reveal that in the late 1980s non-residential building in the unincorporated areas of the county had the highest valuation *(fig. 17)*. With the recession, building plummeted; non-residential building in unincorporated areas was particularly limited. With the exception of non-residential building in unincorporated areas prior to 1989, the majority of building occurred in incorporated areas.

In 1990, Imperial County had 32,842 households and 36,559 housing units. The majority (89.8 percent) of housing units were occupied; a few were vacant (10.2 percent, United States Census Bureau 1990a). Of the occupied housing units,

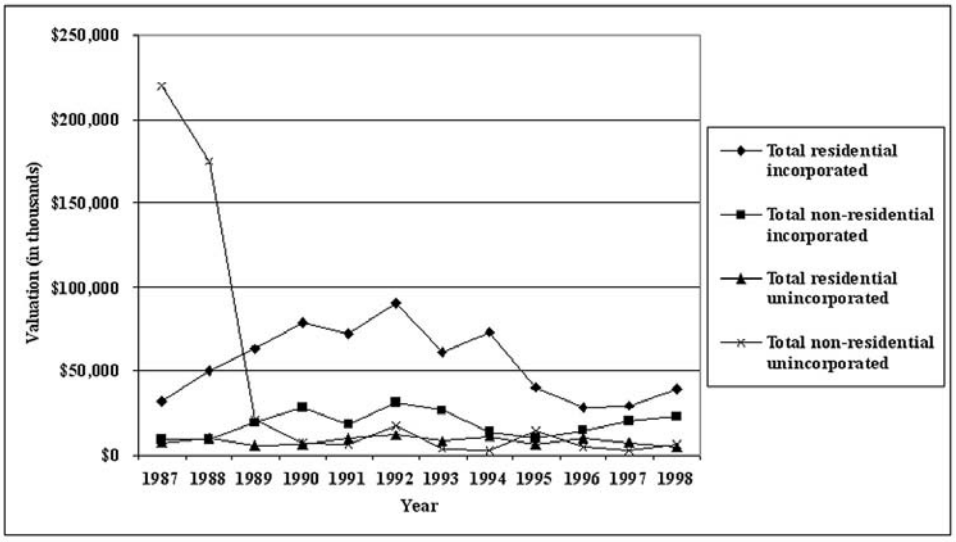


Figure 17—Building trends, Imperial County, in 1998 dollars, 1987-1998.

Source: Construction Industry Research Board 1988-1999

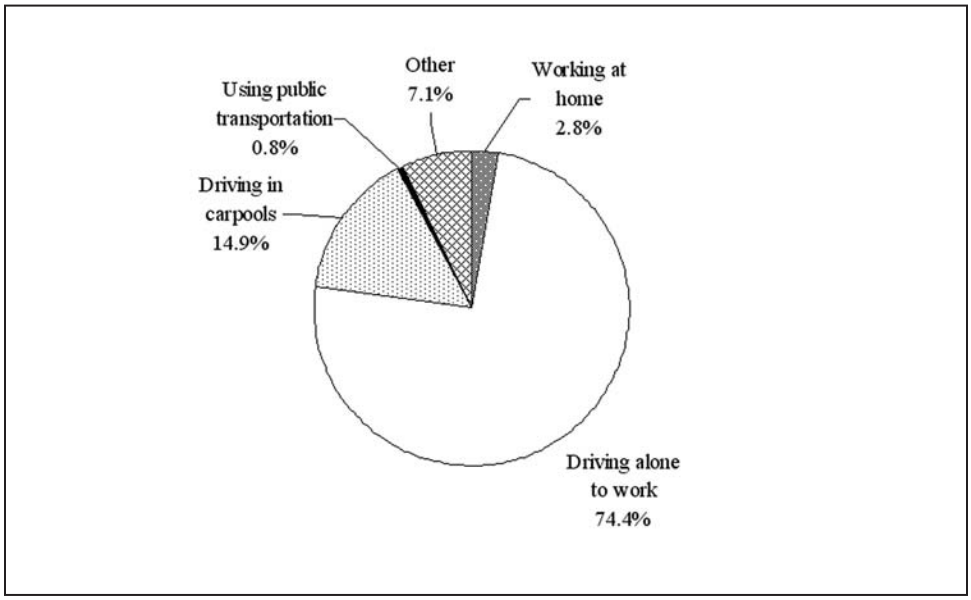
a slight majority (57.6 percent) were owner-occupied and 42.4 percent were renter-occupied. The median value of owner-occupied housing units in 1990 was $72,500, and the median rent was $394 per month.

Quality of Life Indicators

Transportation, Commuting, and Employment—In 1990, there were 35,905 workers age 16 and older in Imperial County, and an average of 1.7 vehicles per household. Few residents (6.2 percent) worked outside the county. The majority (74.4 percent) of workers in Imperial County drove to work alone, although some carpooled to work (14.9 percent) *(fig. 18)*. Less than 1 percent used public transportation. The average travel time to work was 16.5 minutes, less than the average commute of 24.8 minutes for workers in the SCAG region as a whole.

According to the 1990 U.S. Census, the median household income in Imperial County in 1989 was $22,442. Almost one-quarter (24 percent) of Imperial County families lived in poverty, higher than any other county in California (County of Imperial 1993). The statewide level of poverty in 1990 was 12.5 percent. "Unlike many California counties where poverty overwhelmingly burdens Black or Hispanic residents, Imperial County's rate was not substantially different, with 22.5 percent of White, 27.8 percent of Black, and 29.4 percent of Hispanic residents reporting incomes below the poverty level" (County of Imperial 1993, p. 9). Despite such high poverty rates, it seems that many residents are able to purchase homes, because 59 percent of the housing units in the county are single-family homes, 20 percent are multi-family, and 20 percent are mobile homes (County of Imperial 1993).

The largest employers are in agriculture and its related industries that employ about 35 percent of the workforce (County of Imperial 1993). The top five commodities are vegetables, cattle and calves, hay and grass seed, potatoes, and wheat (United States Department of Agriculture 1997). Government is the second largest employer with 21.3 percent of the workforce, followed by retail trade with 15.2 percent. Imperial County has a very high unemployment rate, which ranges between 30 and 40 percent annually (County of Imperial 1993). By comparison, San Diego County's unemployment rate is about 3 percent. Imperial



Source: United States Census Bureau 1990b

Figure 18—Commuting patterns, workers 16 and older, Imperial County, 1990.

County's high unemployment rate is compounded by two factors: (1) agriculture is a seasonal industry vulnerable to major employment swings, and (2) a large number of workers cross daily from Mexico into Imperial County to work for less money and under harsher conditions than Americans. Research on the legal border crossings between Mexico and Imperial County showed 2.9 million border crossings in March 1998 by a total of 700,000 people (Peterson 1998). According to this research, the most common reason to cross the border was to shop in the United States. However, about 22 percent of people crossing into the U.S. were heading to their American jobs. The majority (70 percent) were employed in agriculture, 12 percent in retail and wholesale trade, and 6 percent in services and manufacturing industries (Peterson 1998).

Today, agriculture continues to be the predominant activity in the Imperial Valley, but other industries are growing, creating an expanded economic base that includes mining, geothermal energy development, tourism, customs brokers, and the governmental facilities such as correctional institutions and military training facilities. The region also has economic and social ties with Mexico and the Mexicali area. As a result, the General Services Administration plans to construct a new international Port of Entry east of the city of Calexico to alleviate heavy traffic conditions. Other indications of Imperial County's efforts to entice business to the region include the county's designation by the State of California as an "enterprise zone," paving the way for lower taxes to business and accelerated project approval (Valley of Imperial Development Alliance 1998).

Education—Imperial County has a larger than average percentage of school age children. The 5- to 14-year old group (21 percent) is larger than the State average for the same cohort (14.8 percent) (County of Imperial 1993). Yet, Imperial County serves less than 1 percent of the assessment area's school enrollments. It serves the largest number of students in its elementary schools (*table 13*). The county also has more elementary schools (32) than middle and high schools (8 of each). Average enrollment per school is greatest at the high school level, which is the pattern across the assessment area and all counties. County schools have the 4th lowest enrollment overall and are 20th in highest average enrollment per school. Students in 2nd through 11th grade were tested using the Stanford 9 at 43 of the county schools. Imperial County's ranking in academic performance for 1999 was a mean of 6.30 out of 10 (based on the similarity index, www.cde.ca.gov), indicating higher-than-average performance compared to similar schools. Although 9.3 percent and 23.3 percent of schools in the county performed well below or below average compared to similar schools, 27.9 percent were well above average and 25.6 percent were above average.

Table 13—*Enrollment and number of schools, Imperial County, 1998-1999.*

Type of school	Total enrollment	Percent of total enrollment	Number of schools	Average enrollment/school
Elementary	18,157	57.5	32	567
Middle/Junior High	5,091	16.1	8	636
High School	8,319	26.4	8	1,040
Total	31,567	100.0	48	-

Source: California Department of Education 1998a

Health Care—The largest number of health care establishments in the county deliver ambulatory health care services, followed by social assistance, and nursing and residential care (*fig. 19*). There are no hospitals in the county as reported by the U.S. Census Bureau. However, according to the American Hospital Directory, the county has three hospitals, representing 0.8 percent of the assessment area's

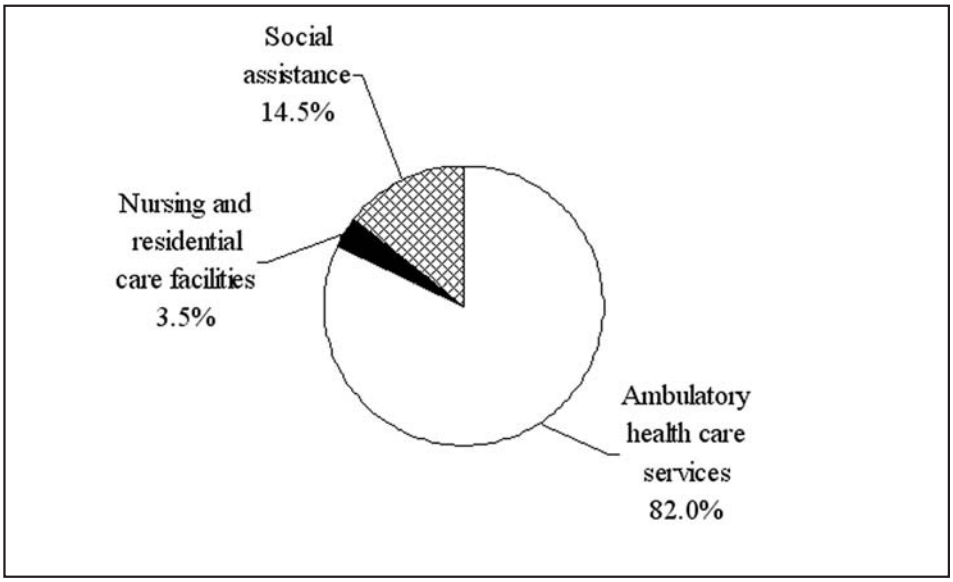


Figure 19—Health care and social assistance establishments, Imperial County, 1997.

Source: United States Census Bureau 1999a

total hospitals (ahd.tool.net/list.php3/mstate=ca). Two-thirds (66.7 percent) of the hospitals are county operated, and one-third are Federal (33.3 percent). For the two hospitals with reported data, a total of 215 beds and 43,007 total patient days were recorded in 1999. The county ranked 23rd in number of hospitals (tied with Santa Cruz County), comparable to its 24th place ranking in population.

Recreation and Tourism—Among the assessment area's 26 counties, Imperial ranked 24th in the 1997 economic census in accommodations and food services, and 25th in arts, entertainment, and recreation (United States Census Bureau 1999b, 1999c). A total of 238 accommodation and food-services establishments, with $89,264,000 in receipts, was reported. Arts, entertainment, and recreation services involved 11 establishments, with receipts totaling $2,914,000.

Imperial County offers special sites for recreation and tourism. These sites of interest include the Salton Sea National Wildlife Refuge, the Superstition Mountain Off-Highway Vehicle Area and the Imperial Sand Dunes Recreation Area. The most comfortable desert temperatures are in the spring and fall, with averages between 50 at night and 85 during the day. Winter is much cooler, with occasional snow at higher elevations. Summer routinely brings daytime temperatures over 100 degrees (www.wildernet.com).

Environmental Indicators

Water Quality—Imperial County crosses four watersheds: Imperial Reservoir, which covers land in Arizona and California and includes the cities of Vidal, Earp, Parker, Blythe, Ehrenberg, and Palo Verde; Lower Colorado, which also spans Arizona and California and includes the cities of Bard, Winterhaven and Gadsden; Southern Mojave, which includes Twentynine Palms; and Salton Sea, which includes cities from Banning south to Calexico (www.epa.gov/surf3/surf98/county.html). (Watersheds frequently cross county boundaries. Therefore, some counties may include watersheds that are also located in other counties.) Three out of the four watersheds, Imperial Reservoir, Lower Colorado, and Salton Sea, were assigned a "5" by the EPA, indicating "more serious water quality problems but low vulnerability to pollution stressors." (According to the EPA's Index of Watershed Indicators procedures, a pollution stressor includes aquatic/wetland species at risk, toxic loads above limits, urban runoff potential, agricultural runoff potential, population change, hydrologic modification, estuarine pollution

susceptibility, and atmospheric deposition.) The Southern Mojave watershed was assigned a "3," indicating "less serious water quality problems and low vulnerability to pollution stressors."

Air Quality—Imperial County has the 24th largest population of the 26 counties, paired with the 2nd lowest emissions from all categories *(table 14)***.** The majority of emissions are projected for marginal decreases dependent upon emission type. Particulates are expected to increase, primarily from area-wide sources, according to the California Air Resources Board (1999).

Table 14—*1996 estimated and 2010 forecasted annual average emissions, Imperial County (cells do not add to column totals due to rounding error).*

Year	Emission category	Emission type[1]						
		TOG	ROG	CO	NOx	SOx	PM	PM10
1996	Stationary	3	2	1	8	0	6	3
	Area-Wide	13	10	43	0	0	460	240
	Mobile	13	11	94	27	1	1	1
	Natural	-	-	-	-	-	-	-
	Total	29	24	140	36	1	470	250
2010	Stationary	3	3	2	11	1	9	4
	Area-Wide	15	12	47	0	-	500	260
	Mobile	7	7	65	23	1	1	1
	Natural	-	-	-	-	-	-	-
	Total	26	21	110	34	2	510	260

Source: California Air Resources Board 1999

[1]TOG: total organic gases; ROG: reactive organic gases; CO: carbon monoxide; NOx: nitrogen oxides; SOx: sulfur oxides; PM: particulate matter; PM10: particulate matter less than or equal to 10 microns (*appendix D*).

Implications

There are a number of unknown factors that could influence the pace of growth and development in Imperial County. For example, the following facilities have been constructed in the region, potentially accelerating growth and development: two State prisons (Calipatria and Centinela State Prisons), expansion of the Naval Air Facility at El Centro, an additional Mexico/U.S. border crossing for a total of three Ports of Entry, and growth of the geothermal industry. Approval of the North American Free Trade Agreement between the U.S., Mexico, and Canada should further stimulate growth.

Cities in Imperial County, with a few exceptions, tend to agree with SCAG population projections. Those exceptions occur when the 1999 population is higher than the projected year 2000 population and when new home construction and the potential to annex surrounding lands mean that a city has a larger potential for growth than SCAG anticipated (e.g., the city of Imperial). An analysis of city opinions on population projections reveals a somewhat uncertain rate of growth and future direction for Imperial County.

Imperial County will likely confront some challenging social, economic, and environmental issues in its future. Although the county has the cheapest housing of any county in the SCAG region, its residents also have the lowest average incomes, the highest average unemployment rates, and a significant percentage of the population (24 percent) in poverty. However, despite these challenges, Imperial County students scored a 6.30 out of 10 on the Stanford 9 exam in 1999, the second highest score (after Orange County) in the region. In terms of

environmental indices, water quality is a more serious concern than air quality in the county. The fact that three out of the county's four watersheds have serious environmental quality problems is something that will need to be addressed as the commercial and residential sectors in the county grow.

Imperial County has significant natural resources that have remained undeveloped. With the majority of land in the county under public domain, Imperial County could become an increasingly popular destination for recreation as the surrounding counties' populations grow and as wildland areas in those counties become more crowded.

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Los Angeles County

- The county is the center of the largest population concentration on the Pacific Coast and contains 88 cities.
- Air quality and transportation are important issues facing the county today.
- There has been a decline in the aerospace industry but growth in the service and technology industries.
- The county is an entry point for international immigrants.
- Urban growth is moving north of the San Gabriel Mountains.

History

The Los Angeles region has a long history beginning with the founding of the city in 1781 *(fig. 20)*. According to Hayden (1995), 44 settlers of mixed Spanish, American Indian, and African heritage settled in a pueblo near the Gabrieleño village of Yang-Na. Later, the Gabrieleños' labor was drawn upon for efforts to build ranching and wine-growing operations. Until the connection to the transcontinental railroad in 1876, Los Angeles was predominantly a Mexican town. However, the original Spanish-speaking settlers were almost completely absorbed by the Anglo Americans who arrived daily by train after 1876. Mexican presence was predominant once again at the beginning of the century when there was large-scale migration to jobs in railroad and streetcar line construction, migratory agricultural work, and brick, tile and cement plants. Persons of Mexican heritage were the largest minority in the city by 1930.

Blacks were also instrumental in the founding of Los Angeles. According to de Graaf (1970) and Hayden (1995), more than half of the original 44 settlers had some African ancestry. With the land boom of the 1880s, Blacks were drawn to

southern California by the possibilities of jobs. By 1900, almost 3,000 resided in the Los Angeles area, making it the largest Black settlement on the Pacific Coast (Hayden 1995).

Asians were also a visible minority in the city by 1900. Hayden reports that the Chinese came to California originally to mine gold and later to build railroads and aqueducts. They settled in Los Angeles' Chinatown in large numbers, starting businesses in produce operations. When restrictions were placed on Chinese immigration in the late 1800s, Japanese laborers replaced the Chinese in the citrus, flower, and fishing industries. Anglo American settlers did not arrive in Los Angeles in substantial numbers until the arrival of the railroad. The discovery of oil in the 1890s provided a stable source of income and led to the development of various kinds of manufacturing. The film and music industries developed before World War II. Defense industries grew to support the various war efforts from World War II to the Persian Gulf War.

The urban form represented by Los Angeles does not follow the pattern of eastern U.S. cities with a single dominant city center ringed by suburbs. Los Angeles is a multi-centered metropolis whose development was influenced both by industrial expansion and transportation. Although Los Angeles experienced waves

Figure 20—Los Angeles County (shaded area) is north of Orange County.

Source: 50 Individual States—Counties 1995

of expansion beginning with the land boom of 1887-1888 (de Graaf 1970), "over 70 percent of the urban development occurred since 1940" (County of Los Angeles 1993, p. G-1), making the post-World War II era one of the most significant periods in Los Angeles County history. "The multi-centered regional city premiered in Los Angeles, advanced to a new level during World War II, and developed in other metropolitan areas during the postwar era" (Hise 1993, p. 98).

Although historians such as Fogelson (1967) concentrate on transportation as the major decentralizing force in the region, historians Hise (1993, 1997) and Viehe (1981) present alternative hypotheses for the development of the county. Both focus on industrial development, but each examines different industries during consecutive eras. Viehe (1981) is primarily concerned with the influence of the extractive industries on the suburbanization of Los Angeles from 1890 to 1930; while Hise (1993, 1997) analyzes the development of the "Big Six" aircraft firms and the community builders who built housing for wartime workers employed by those aerospace firms during the postwar period. De Graaf (1970) specifically examines the emergence of the Black community in Los Angeles from 1890 to 1930 and thereby remedies a gap in the historical account.

According to Viehe (1981), industrial and residential development in Los Angeles County appeared at either oil fields or refinery sites. By 1930, that development was responsible for the industrialization of the greater metropolitan region. The economic benefits provided by the presence of oil encouraged suburbs to incorporate in order to include oil fields within their boundaries. Viehe traces the development of a number of cities in Los Angeles and some in Orange County to oil and concludes that cities' economic and financial linkages with the oil industry prevented their annexation by the city of Los Angeles.

Hise (1993, 1997) continues with the theme that industrial factors are the primary determinant of the spatial form of Los Angeles. Large aerospace firms chose Los Angeles because of the innovations of industry leaders such as Douglas Aircraft, the presence of a skilled non-union labor force, and support institutions like the California Institute of Technology. The expanding aircraft industry spurred regional employment in Los Angeles and created the need for housing. Changes in Federal Housing Administration regulations initiated a new class of mortgage guarantees targeted toward small homes. Builders such as Fritz B. Burns, Fred W. Marlow, and Henry J. Kaiser became the developers participating in the construction of affordable homes for defense workers. "These wartime satellite communities were planned to be complete communities for 'balanced living,' affordable for workers and families. They would become the core of a new multinucleated settlement pattern" (Hise 1993, p. 110). Hise concludes his analysis with the observation that these communities were not the result of unplanned growth and unmitigated sprawl, but were planned through a series of uncoordinated but mutually reinforcing decisions taken by aircraft manufacturers, federal housing personnel, and home builders.

If industrial location, community planning, and migration are the major factors in determining the spatial form of the Los Angeles region, then de Graaf (1970) highlights migratory patterns, specifically the migration of Blacks to Los Angeles in two periods: 1900 to 1920 and "the Great Migration" from 1915 to 1929. Blacks in the earlier migration came from the Pacific Northwest, but by 1920, most came from southern states. The Blacks in the earlier migration were professionals, and those in the later migration tended to be laborers and servants. De Graaf cites the class shift of Black immigrants as one factor explaining the increasing White hostility to Blacks in Los Angeles. Nevertheless, Blacks came to the region for the economic opportunities. The most important countervailing factor to restrictions in employment was the opportunity to buy land and houses. Many Blacks of modest means and occupation could afford to buy homes. "The real estate boom and home ownership gave Los Angeles Blacks reason for optimism and enterprise despite discriminations in other aspects of life" (de Graaf 1970, p. 344).

Los Angeles County Today

According to the Los Angeles County General Plan (County of Los Angeles 1993), the county is one of the nation's largest counties with its 4,083 square miles. It has the largest population (9.5 million as of April 2000) of any county in the nation and is larger than 42 states (www.co.la.ca.us/overview.htm). Approximately 29.3 percent of California's residents live in Los Angeles County (www.co.la.ca.us/overview.htm).

Historically, the area of the county experiencing the most growth has been the southern part of the county, but this is expected to change. In 1975, approximately 1,133 square miles were devoted to urban use, more than 97 percent of which was south of the San Gabriel Mountains (County of Los Angeles 1993). Currently, the areas experiencing high growth are in the northern part of the county, north of the San Gabriel Mountains. As the San Fernando Valley fills up, the Santa Clarita Valley and the Antelope Valley will intensify development. Planners expect that in the next 20 years, the Santa Clarita Valley will emerge as a major suburban office center (Sanchez 1999). Landowners are proposing new suburbs as far north as the Kern County line, creating concerns about the impact on the area's fragile environment. Despite environmental concerns, "north Los Angeles County, along with the Inland Empire to the east, stands to absorb much of southern California's future growth as affordable housing and open land (are) in short supply and the economy continues to expand" (Sanchez 1999, p. A32).

Sociodemographic Characteristics

Projected Population—Los Angeles County is divided into eight sub-regions by SCAG. Each sub-region summed equals the total growth forecast for the SCAG region. A comparison of the SCAG total with DOF reveals that the SCAG forecast is much higher than DOF's projections (*table 15*). SCAG is currently in the process of revising their growth forecast, and as a result, these projections will be lowered. The population allocation to the sub-regions is not yet finalized. An increased population is in the county's future.

Ethnic and Racial Diversity—The county is culturally diverse and is becoming more so *(table 16)*. Hispanics are the largest ethnic group in the county, surpassing Whites in 2000.

Table 15—*Population projections, Los Angeles County, 1990-2040.*

Source	1990	1994	2000	2005	2010	2015	2020	2030	2040
U.S. Census	8,863,052[1]	-	9,519,338	-	-	-	-	-	-
DOF	8,901,987[2]	-	9,838,861	-	10,604,452	-	11,575,693	12,737,077	13,888,161
North LA County	-	451,400	590,200	728,500	873,600	1,031,700	1,213,400	-	-
LA City	-	3,656,700	3,845,300	4,051,200	4,298,900	4,578,700	4,890,900	-	-
Arroyo Verdugo	-	538,000	556,800	578,000	604,200	647,400	684,000	-	-
San Gabriel Valley COG	-	1,482,300	1,566,700	1,624,400	1,673,500	1,728,700	1,805,200	-	-
Westside Cities	-	227,000	233,600	238,000	242,400	248,200	253,100	-	-
South Bay Cities Association	-	818,900	857,700	872,200	884,600	902,900	925,600	-	-
Gateway Cities COG	-	1,982,000	2,086,500	2,149,700	2,196,900	2,275,500	2,368,600	-	-
Las Virgines/ Malibu COG	-	75,300	81,700	87,800	94,600	100,400	108,300	-	-
SCAG Total[3]	-	9,231,600	9,818,500	10,329,800	10,868,700	11,513,500	12,249,100	-	-

Source: United States Census Bureau 1990a and 2000, State of California Department of Finance 1998, Southern California Association of Governments 1998

[1] Data from April 1.

[2] Data from July 1.

[3] Projections from SCAG are subject to change, based on the agency's final numbers, not yet available.

Table 16—*1990 and 2000 population, Los Angeles County.*

	1990	2000
	---------- Percent	----------
Non-Hispanic White	40.8	31.1
Hispanic all races	37.8	44.6
Non-Hispanic Black	10.5	9.5
Non-Hispanic Asian	10.2	12.1
Non-Hispanic American Indian	0.3	0.3
Non-Hispanic other	0.2	0.2
Non-Hispanic two or more races	N/A	2.3

Source: United States Census Bureau 1990a, 2000

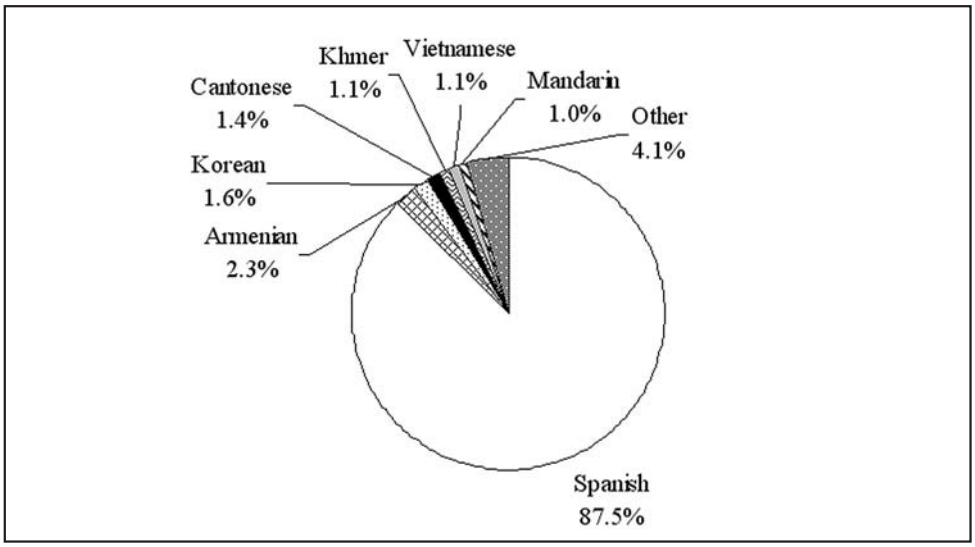
Los Angeles has been influenced by a number of migratory flows, and some of the major ethnic and racial communities include: Mexican, Black, White, Chinese, Jewish, Japanese, Cuban, Korean, and Filipino (County of Los Angeles 1993). In fact, "Los Angeles is the second largest Mexican, Armenian, Filipino, Salvadoran, and Guatemalan city in the world, the third largest Canadian city, and has the largest Japanese, Iranian, Cambodian, and Gypsy communities in the United States" (Hayden 1995, p. 83). The U.S. Census numbers show that Hispanics have once again become the largest ethnic group in the county as they were early in Los Angeles' history.

Children in the Los Angeles Unified School District speak 96 different languages (Hayden 1995). In 1990, 32.7 percent of Los Angeles County's population was foreign-born. Slightly more than 45 percent of residents age 5 and older spoke a language other than English at home. Of those, 69.4 percent spoke Spanish, and 30.6 percent spoke a language other than English or Spanish (United States Census Bureau 1990b). This linguistic diversity is reflective of the cultural and ethnic diversity of county residents.

The majority of LEP students in Los Angeles County public schools speak Spanish—mirroring the languages spoken at home—or a selection of other languages, such as Armenian, Korean, Cantonese, Khmer, Vietnamese, and Mandarin *(fig. 21)*. In 1997-98, 35.4 percent of Los Angeles County's public school students were LEP.

Projected Ethnic and Racial Diversity—By 2000, Hispanics in Los Angeles County were projected to become the majority population, and did so. Whites, Blacks and American Indians are projected to continue decreasing as a proportion of the population, while the Asian population is expected to increase slightly as a proportion of the population *(fig. 22)***.**

Figure 21—Limited-English-Proficient (LEP) students in Los Angeles County public school districts, by language, 1997-1998.



Source: California Department of Education 1998b

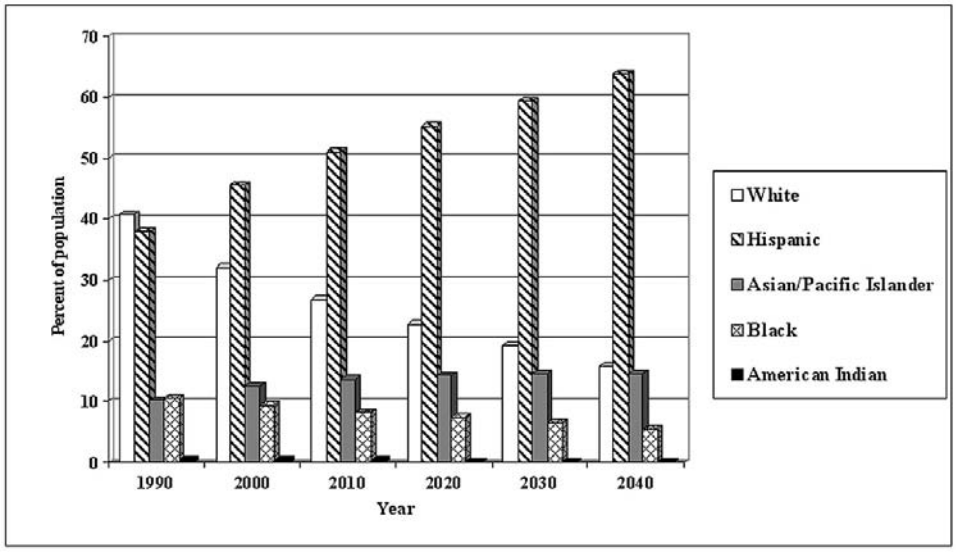


Figure 22—Racial and ethnic diversity trends for Los Angeles County.

Source: State of California Department of Finance 1998

Whites are expected to have approximately a 25 percent decrease in proportion of the population, and Hispanics approximately a 26 percent increase (*table 17*). Blacks represent the second largest decrease in proportion of population at 5.03 percent.

Table 17—*Percent race/ethnicity and percent change in Los Angeles County, 1990-2040.*

Racial/ethnic group	1990	2000	2010	2020	2030	2040	Cumulative percent change
	----------Year----------						
White	40.81	32.15	26.75	22.72	19.25	15.87	
	-	(-8.66)	(-5.40)	(-4.03)	(-3.47)	(-3.38)	-24.94
Hispanic	38.01	45.56	50.99	55.28	59.52	63.87	
	-	(7.55)	(5.42)	(4.30)	(4.24)	(4.35)	25.86
Asian/Pacific Islander	10.32	12.58	13.73	14.31	14.58	14.57	
	-	(2.26)	(1.16)	(0.58)	(0.26)	(0.00)	4.25
Black	10.53	9.43	8.26	7.44	6.44	5.50	
	-	(-1.10)	(-1.17)	(-0.82)	(-1.00)	(-0.94)	-5.03
American Indian	0.33	0.28	0.27	0.25	0.22	0.18	
	-	(-0.04)	(-0.01)	(-0.02)	(-0.03)	(-0.03)	-0.14

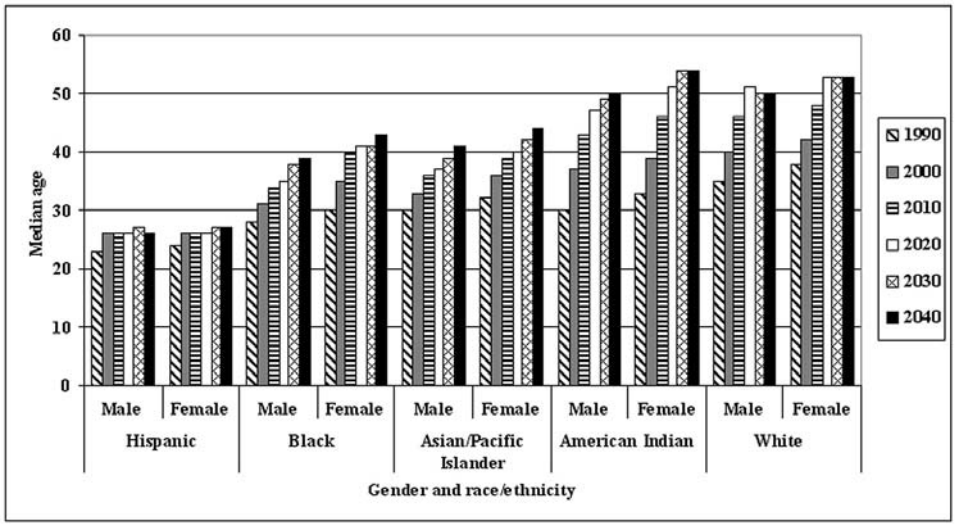
Source: State of California Department of Finance 1998

All racial and ethnic groups in Los Angeles County show an increasing median age through the forecast period, and the county's median age moves from 30 to 34 between 1990 and 2040, though interim years show fluctuation (*fig. 23*). The American Indian population's median age is expected to increase the most dramatically, from 31.5 to 52 years, followed by Whites (increasing from 36.5 to 51.5 years). Blacks and Asians are also projected to increase in median age as a population (from 29 to 41, and 31 to 42.5, respectively). Hispanics have the lowest forecasted median age (from 23.5 to 26.5). A 25-year span is represented between American Indians with the highest median age and the projected median age for Hispanics.

Development and Real Estate

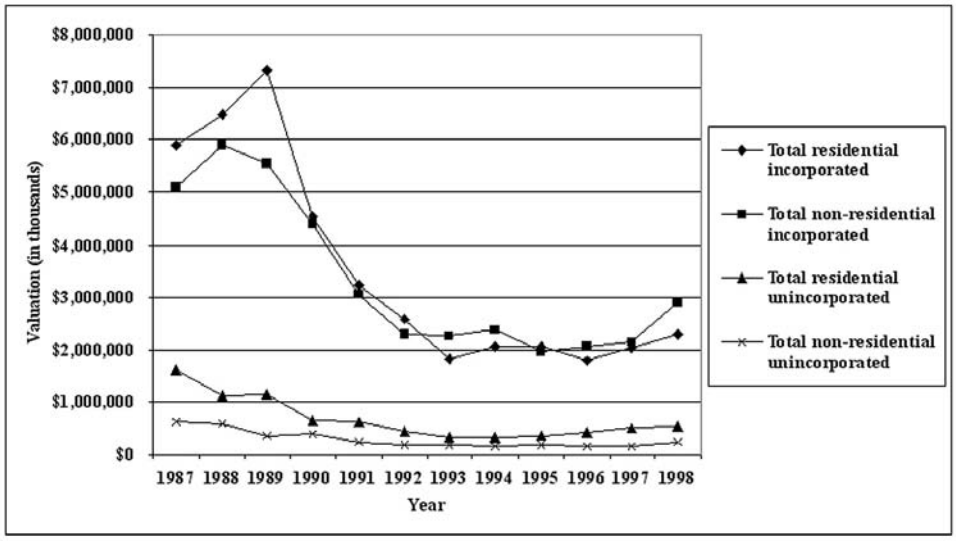
Most of the growth in the county has occurred in incorporated areas (*fig. 24*). Residential building in incorporated areas accounted for the highest proportion of building in the county from 1987 to 1990 but in the early 1990s was surpassed by non-residential building in incorporated areas. Building in unincorporated areas from 1987 to 1998 remained stable.

Figure 23—Median age by gender and race/ethnicity, Los Angeles County, 1990-2040.



Source: State of California Department of Finance 1998

Figure 24—Building trends, Los Angeles County, in 1998 dollars, 1987-1998.



Source: Construction Industry Research Board 1988-1999

Single-family housing is characteristic of the Los Angeles urban form, but its low profile is punctuated by many high-intensity centers, several of which contain clusters of high-rise buildings. However, detached single-family homes and other low intensity uses continue to be the dominant form of new development in outlying urban areas, constituting more than 75 percent of new urban expansion. The trend of decreasing household size will mean that more housing is needed to serve approximately the same level of population (County of Los Angeles 1993). In 1990, Los Angeles County had 2,989,552 households and 3,163,343 housing units. The vast majority were occupied, with a 5.5 percent vacancy (United States Census Bureau 1990a). The occupancy rate of 94.5 percent is one of the highest in the SCAG region, indicating a housing shortage in Los Angeles. Orange County has the same occupancy rate and Ventura County's is even higher at 95.1 percent, the highest in the SCAG region. Of the occupied housing units, fewer were owner-occupied (48.2 percent) than renter-occupied (51.8 percent, United States Census Bureau 1990a). The median value of owner-occupied housing units in 1990 was $226,400, and the median rent was $626 per month.

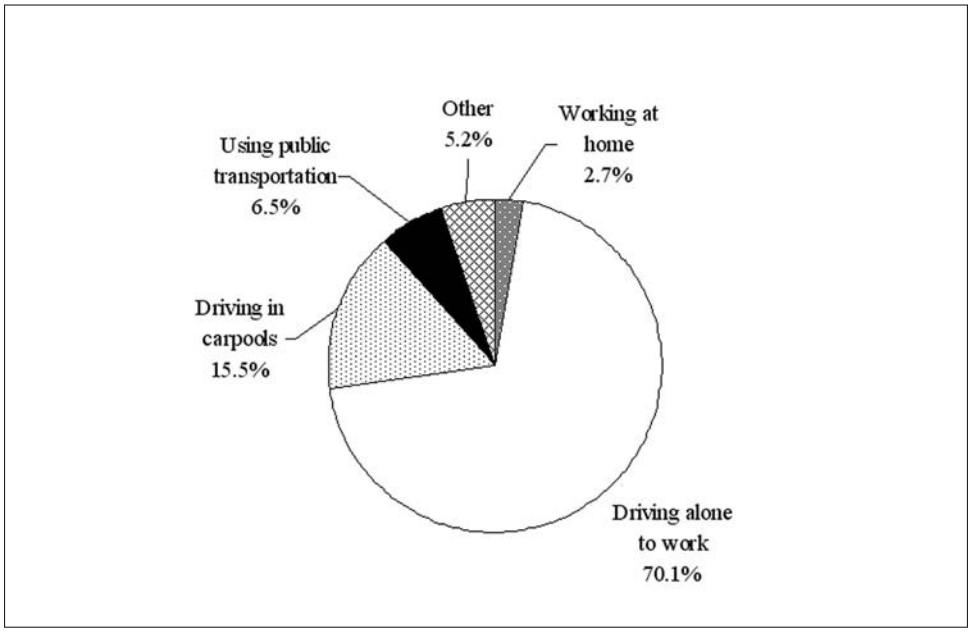
Quality of Life Indicators

Transportation, Commuting, and Employment—In 1990, there were 4,115,248 workers age 16 and older in Los Angeles County, with an average of 1.7 vehicles per household. Of these workers, 5.9 percent worked outside the county. The majority (70.1 percent) of workers in Los Angeles County drove to work alone, although some carpooled (15.5 percent), or used public transportation (*fig. 25*). The average travel time to work was 26.5 minutes, slightly longer than the average commute of 24.8 minutes of workers in the SCAG region as a whole.

New freeway construction has virtually ceased. Automobiles are the primary mode of transportation, and air pollution is a critical issue despite improvements brought about by new technology. According to the General Plan, prime developable land is growing scarce and expensive (County of Los Angeles 1993). "Urban development has encroached upon natural areas and the coastline" (County of Los Angeles 1993, p. G-3).

As described in the General Plan, Los Angeles County is the second largest metropolitan economy in the nation (County of Los Angeles 1993). Its average share of manufacturing employment is the largest in the nation, ahead of Chicago and New York (Kyser and others 2000). If the Los Angeles County economy is ranked among countries, it is 16th in 1999 gross-product dollars, coming after the Netherlands, but ahead of Taiwan (Kyser and others 2000). Tremendous growth has occurred in some industries such as high technology, aerospace, and services while stagnation has occurred in others such as steel and automobile manufacturing. Los Angeles County has reached a level of prominence as an international center for trade, finance, and business services. There are also strong industrial sectors in communication (television and film), transportation, and electronics. It is expected that the growth leaders in 2000 and 2001 will be international trade, technology, and tourism. Job losses will continue in the aerospace and apparel industries (Kyser and others 2000). In terms of international trade, both Mexico and the Asian Pacific Rim have been significant for California and Los Angeles County.

In 1997, the unemployment rate in the county was 6.8 percent. Of those who were employed, almost one-third were in services (32.7 percent), followed by trade (22.2 percent), and manufacturing (17.1 percent) (www.dof.ca.gov/html/fs_data/profiles/LA.xls). The county's unemployment rate was 5.6 percent in 2000 and is



Source: United States Census Bureau 1990b

Figure 25—Commuting patterns, workers 16 and older, Los Angeles County, 1990.

expected to increase to 5.7 percent in 2001 (Kyser and others 2000). The healthy performance of the county's economy has been in part due to its diversity. If one sector of the economy is doing poorly, such as aerospace, there are others that are performing strongly, such as international trade, technology, and tourism. While the land in farms, the average size of farms, and the number of full-time farms decreased from 1992 to 1997, the market value of agricultural products sold increased to $237,665,000 during the same period, an increase of 19 percent (United States Department of Agriculture 1997). Manufacturing job losses are primarily due to the loss of aerospace and some leakage of jobs to surrounding areas due to the lack of industrial space (Kyser and others 2000). Manufacturing remains a strong component of the Los Angeles County economy. What continues to be important for the county are ways to develop critical infrastructure such as airport and freeway capacity (Kyser and others 2000).

Education—Los Angeles County serves the largest number of students in its elementary schools and has more elementary schools (1,160) than middle and high schools (237 and 167, respectively) *(table 18)*. Average enrollment per school is greatest at the high school level, which is the pattern across the assessment area and all counties. Los Angeles County serves 30 percent of the assessment area's school enrollments. County schools have the highest enrollment overall, and they are first in highest average enrollment per school. Students in 2nd through 11th grade were tested using the Stanford 9 at 1,554 of the county schools. Los Angeles's ranking in academic performance for 1999 was a mean of 6 out of 10 (based on the similarity index, www.cde.ca.gov), indicating higher-than-average performance than similar schools. Although 13.7 percent and 19.4 percent of schools in the county performed well below or below average compared to similar schools, 23.3 percent were well above average and 23.6 percent were above average.

Table 18—*Enrollment and number of schools, Los Angeles County, 1998-1999.*

Type of school	Total enrollment	Percent of total enrollment	Number of schools	Average enrollment/school
Elementary	857,493	55.1	1,160	739
Middle/Junior High	299,215	19.2	237	1,263
High School	398,325	25.6	167	2,385
Total	1,555,033	100.0	1,564	-

Source: California Department of Education 1998a

Health Care—The largest number of health care establishments in the county deliver ambulatory health care services, followed by social assistance, nursing and residential care, and hospital care *(fig. 26)*. The county has 124 hospitals, representing 31.2 percent of the assessment area's total hospitals (ahd.tool.net/list.php3/mstate=ca). Half are nonprofit (50 percent), and more than one-third are for-profit (38.7 percent), with the balance county (9.7 percent) and Federally managed (1.6 percent). For those hospitals with reported data (106 hospitals), a total of 29,273 beds and 31,666,238 total patient days were recorded in 1999. The county ranked first in number of hospitals, comparable to its first-place ranking in population.

U.S. News & World Report recognized Los Angeles County hospitals for excellence in health care (www.usnews.com/usnews/nycu/health/hosptl/metro.htm#). UCLA Medical Center, Los Angeles, ranked 1st in geriatrics; 4th in gynecology and urology; 5th for eyes; 6th in ear, nose and throat as well digestive disorders and psychiatry; 8th in cancer treatment, neurology, and rheumatology;

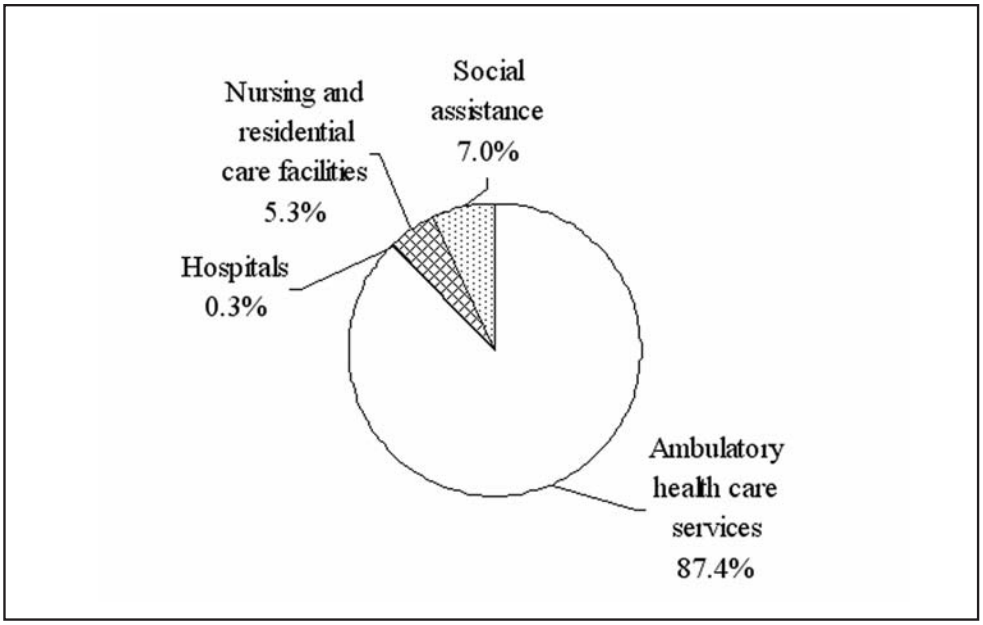


Figure 26—Health care and social assistance establishments, Los Angeles County, 1997.

Source: United States Census Bureau 1999a

10th in orthopedics; 12th in kidney disease; 13th in hormonal disorders and respiratory disorders; 15th in pediatrics; and 17th in heart. USC Medical Center was also recognized for numerous areas of excellence, including eyes (ranked 7th for Doheny Eye Institute), rheumatology (16th), kidney disease (22nd), neurology (36th), ear, nose and throat (37th), orthopedics (47th), and geriatrics (49th). Children's Hospital of Los Angeles was ranked 5th nationally in pediatrics; Rancho Los Amigos Medical Center was ranked 11th in rehabilitation. Finally, Cedars-Sinai Medical Center was ranked 16th in heart, 25th in gynecology, and 44th in digestive disorders. These accolades demonstrate a high quality of care among various specialties within the large number of hospitals located in Los Angeles County.

Recreation and Tourism—Among the assessment area's 26 counties, Los Angeles ranked first in the 1997 economic census in accommodations and food services, and in arts, entertainment, and recreation (United States Census Bureau 1999b, 1999c). A total of 15,718 accommodation and food-services establishments, with $11,074,317,000 in receipts, was reported. Arts, entertainment, and recreation services involved 6,832 establishments, with receipts totaling $8,250,505,000.

Los Angeles County offers an extensive variety of sites for recreation and tourism. Aside from the urban-based opportunities such as the Norton Simon Museum of Art and the Huntington Library, natural resource-based opportunities abound. The county surrounds and overlaps the Angeles National Forest, and is proximate to the Los Padres and San Bernardino National Forests. On the Angeles, elevations range from 1,200 to 10,064 feet, much covered with dense chaparral shifting to fir and pine as elevation changes. Winter season offers snow-play, while lower elevations offer year-round opportunities in hiking, camping, mountain biking, and snow skiing (www.wildernet.com a). The county park system in Los Angeles represents a wide range of ecosystems. Visitors to the coastal areas can visit one of the many State beaches (such as Will Rogers State Beach), or move inland to the desert regions and visit spots such as the Antelope Valley California Poppy Reserve (www.wildernet.com a). The Santa Monica Mountains National Recreation Area offers year-round opportunities as well (www.wildernet.com b).

Environmental Indicators

Water Quality—Los Angeles County crosses 10 watersheds: the Middle Kern-Upper Tehachapi-Grapevine, which includes the cities of Caliente south to Frazier Park; the Santa Clara, which includes the cities of Fillmore and Santa Clarita; Calleguas, which includes Port Hueneme east to Thousand Oaks; Santa Monica Bay; Los Angeles, which includes the cities of San Fernando south to Paramount; the San Gabriel Reservoir, which includes the cities of Duarte south to Seal Beach; San Pedro Channel Islands, which includes Catalina Island; the Santa Ana, which includes the area from Anaheim to Riverside; Antelope-Fremont Valleys, which includes the cities of Lancaster and Palmdale; and Mojave, which includes the San Bernardino County cities of Barstow south to Hesperia (www.epa.gov/surf3/surf98/county.html). (Watersheds frequently cross county boundaries. Therefore, some counties may include watersheds that are also located in other counties.)

The Calleguas and Santa Monica Bay watersheds were assigned a "5" by the EPA, indicating "more serious water quality problems but low vulnerability to pollution stressors." (According to the EPA's Index of Watershed Indicators procedures, a pollution stressor includes aquatic/wetland species at risk, toxic loads above limits, urban runoff potential, agricultural runoff potential, population change, hydrologic modification, estuarine pollution susceptibility, and atmospheric deposition.) The Middle Kern-Upper Tehachapi-Grapevine, Santa Clara, Los Angeles, San Gabriel, San Pedro Channel Islands, Santa Ana, Antelope-Fremont Valleys, and Mojave watersheds were assigned a "3," indicating "less serious water quality problems and low vulnerability to pollution stressors."

Air Quality—Los Angeles County has the largest population of the 26 counties, paired with the highest emissions in all categories *(table 19)***.** The majority of emissions are projected for marginal decreases dependent upon emission type. Particulates are expected to increase, primarily from area-wide sources, according to the California Air Resources Board (1999).

Table 19—*1996 estimated and 2010 forecasted annual average emissions, Los Angeles County (cells do not add to column totals due to rounding error).*

Year	Emission category	Emission type[1]						
		TOG	ROG	CO	NOx	SOx	PM	PM10
1996	Stationary	400	190	44	97	29	29	20
	Area-Wide	170	130	280	22	0	370	200
	Mobile	410	370	3,400	570	35	30	26
	Natural	6	3	63	1	-	10	10
	Total	990	690	3,800	690	65	440	250
2010	Stationary	460	230	44	73	18	33	23
	Area-Wide	170	130	220	25	0	410	220
	Mobile	170	160	1,900	360	43	28	24
	Natural	6	3	63	1	-	10	10
	Total	810	520	2,300	460	62	480	270

Source: California Air Resources Board 1999

[1]TOG: total organic gases; ROG: reactive organic gases; CO: carbon monoxide; NOx: nitrogen oxides; SOx: sulfur oxides; PM: particulate matter; PM10: particulate matter less than or equal to 10 microns (*appendix D*).

Implications

Most of the growth in the county has occurred south of the San Gabriel Mountains toward the ocean and adjacent to Orange County. Contrary to popular perception, 65 percent of the land in the county is unincorporated (www.co.la.ca.us/statistics.htm) and 71 percent of that unincorporated land is

composed of mountainous areas, including the Angeles National Forest and the Santa Monica Mountains. Thus, growth that is occurring in undeveloped areas is occurring north and west of these two wildland areas. As described in the General Plan (County of Los Angeles 1993), there is a great need for additional housing in the county in order to accommodate the burgeoning population. Although past trends have not indicated that the majority of new building is occurring in unincorporated areas, planners' projections, as well as the building boom in the Santa Clarita and Antelope Valleys, seem to suggest that the future holds more construction in unincorporated regions of the county.

Los Angeles has one of the most ethnically diverse populations in the United States. The Hispanic population is the county's largest ethnic group and is expected to be 64 percent of the population by 2040. Additionally, all ethnic groups except Hispanics will be increasing in median age. This means that Los Angeles will have a population consisting of young Hispanics and older Whites, Asians, Blacks, and American Indians. Because it is likely that each group will have diverse needs and interests, the implications for planning are numerous.

Economic forecasts for Los Angeles are not entirely clear, but with continued population growth, infrastructure is going to be an on-going concern for the county. Transportation, housing, the availability of water, and energy are all resources whose development will remain significant for the county. The county can adopt certain approaches to develop infrastructure to meet future demand. The county can use infill development to guide housing projects to vacant lots within urbanized areas. To mitigate traffic congestion and air pollution, the county might improve the current highway system, develop additional public transit facilities, and develop transit-oriented districts. To protect open space and natural resources, the county can survey and update maps to promote preservation of these areas. Given the proximity of the Angeles National Forest to Los Angeles, it is likely that visits to the forest will continue to increase as population increases. The greatest challenge for the county will be how to accommodate growth with sensitivity to preserving natural resources and providing needed public facilities and services (Fricano 2000).

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Orange County

- The county has agricultural roots, but today is highly urbanized.
- The county had the largest municipal bankruptcy in U.S. history in December 1994.
- It is the location of the world's largest master-planned community, the city of Irvine.
- Within the county there are hubs of commerce that center around entertainment, biotechnology, information technology, and aerospace.
- The county contains the largest settlement of Vietnamese residing outside Vietnam.

History

As the county directly south of Los Angeles, Orange County has frequently been thought of as an appendage of Los Angeles *(fig. 27)*. The first inhabitants of Orange County were the Juaneños (the native tribal name is the Chumash) and Gabrieleños, who were named after the nearby missions: Mission San Juan Capistrano and the San Gabriel Mission. In the 1700s Portolá was commissioned by Spain to explore and map California. Father Junipero Serra joined Portolá on his expeditions to build missions to work the land and convert the native Indians to Christianity.

When Europeans settled the area, most of the land was divided into huge parcels called Ranchos. Land ownership was not given to Indians, but was parceled out by way of Spanish and Mexican land grants. A number of Orange County's wealthy families can be traced back to these original land grants including the Yorbas, the Peraltas, and the Irvines.

A unique feature in the county's history is the presence of large developers that have played a central role in the spatial form of the county. The Irvine Company, one of the largest private landholding companies in the United States, owns land that used to be part of the Irvine Ranch in central Orange County. The history of the Irvine Company goes back to California's pastoral era when two brothers, Benjamin and Thomas Flint, and their cousin Llewellyn Bixby operated a large sheep ranch in Monterey County under the name of Flint, Bixby and Company in the 1850s (Schiesl 1991). The Civil War increased the demand for California wool, and the company extended their holdings further south to include cattle ranches located in the Los Angeles region. A severe drought in the early 1860s brought devastation to the cattle industry and left Mexican American rancheros financially destitute (Schiesl 1991).

James Irvine, a wealthy merchant from San Francisco, accepted an invitation from the sheep ranchers to take half interest in their investment in the empty cattle lands. They purchased the Rancho San Joaquin, Rancho Lomas de Santiago, and part of the Rancho Santiago de Santa Ana. Irvine bought out his partners for $150,000 in 1876 and got title to all three properties. Then in 1889, the California legislature voted in favor of creating a new county out of the southern part of Los Angeles County and authorized a special election, due to pressure from prominent merchants and landowners from the Santa Ana Valley. The voters approved separation by a huge margin. James Irvine II, who inherited his father's estate, decided to consolidate the properties and incorporated them as the Irvine Company in 1894 (Schiesl 1991).

Incorporation marked the transition from a grazing enterprise to an agricultural one. Much of the land formerly devoted to sheep pasture was planted in the late 1890s with field crops such as beans, barley, and corn. Diversification of crops continued in the next decade. In the 1910s and 1920s, the Irvine Company entered

Figure 27—Orange County (shaded area) is directly south of Los Angeles.

Source: 50 Individual States—Counties 1995

the citrus industry and devoted hundreds of acres to lemon and orange trees. All this activity put heavy demands on water supplies, and the company drilled wells, laid thousands of miles of pipeline, and built several dams and reservoirs to ensure a steady water supply.

After World War II, residential demands placed new pressures on the Irvine Company to devote portions of the ranch to urban uses. With these pressures, the Irvine Company transitioned from agriculture to development by the mid-1960s. Other parts of Orange County responded to growth pressures before this time and smaller orange groves, bean fields, strawberry fields, and dairies in the northwestern and central part of the county were developed into residential areas as a result (Gayk 2000). The Irvine Company still owns one-sixth of Orange County land stretching from the hills above the Pacific Coast to the Cleveland National Forest, 22 miles to the northeast.

The region has been shaped by the cultures of Indian peoples, Spanish, Mexican, and American colonists; it has always had a history of conquest of one group

over another. The popular perception is that Orange County represents White flight from Los Angeles. Although this perception has some merit, it masks the fact that Orange County is quite ethnically diverse. For example, the largest settlement of Vietnamese outside Vietnam resides in Westminster in northern Orange County (Economist 1998, Gropp 1992, www.vncoc.org).

"The future came to Orange County first," said author Joel Garreau who coined the term "edge cities" for regions like Orange County that grew outside traditional cities. "Every urban area worldwide that is growing is growing like Orange County" (Strickland 1998, p. A12). Rather than having one central city that dominates the landscape, Orange County has an "urban node" form of development with multiple hubs of commerce.

Although the county is known as an enclave of the wealthy, the Orange County bankruptcy of December 1994 significantly changed Orange County's financial status. The bankruptcy was the largest municipal bankruptcy in the history of the United States. Partly as a result of the pressure to raise revenue in the financially restrictive Post-Proposition 13 era and partly as a result of bad judgment, the county treasurer, Robert Citron engaged in risky ventures in the investment of the county's money (Baldassare 1997, Fulton 1997).

Orange County looked to its waste management system to help bail it out of the crisis. The county was successful in changing legislation to allow the importation of waste from other counties into its own landfill system to raise revenue. As approved in the bankruptcy recovery plan, the $15 million raised each year from this imported waste will be placed in the county's general fund for the next 20 years to aid the daily operation of the county (Struglia 1998).

Today, the county is facing land use battles over El Toro and Tustin Marine Corps Air Stations that will significantly affect the direction of future growth in the county.

Orange County Today

Sociodemographic Characteristics

Projected Population—DOF, SCAG, and the county were the agencies that calculated population projections for Orange County (*table 20*). An increasing population is expected throughout the forecast period, though degree of increase depends on the source of projections.

Since the bankruptcy in 1994, the county has contracted the calculation of population and growth projections to Dr. William Gayk who runs the Center for Demographic Research at California State University, Fullerton. Dr. Gayk's center provides the technical support for the development of the projections, which are

Table 20—*Population projections, Orange County, 1990-2040.*

Source	1990	1994	2000	2005	2010	2015	2020	2030	2040
U.S. Census	2,410,668[1]	-	2,846,289	-	-	-	-	-	-
DOF	2,417,552[2]	-	2,833,190	-	3,163,776	-	3,431,869	3,752,003	4,075,328
SCAG[3]	-	2,595,300	2,859,100	3,005,700	3,105,500	3,165,400	3,244,800	-	-
CDR	-	-	2,853,757	3,031,440	3,168,942	3,270,677	3,343,829	-	-

Source: United States Census Bureau 1990a and 2000, State of California Department of Finance 1998, Southern California Association of Governments 1998, Center for Demographic Research 2000

[1] Data from April 1.

[2] Data from July 1.

[3] Projections from SCAG are subject to change, based on the agency's final numbers, not yet available.

approved by the Orange County Council of Governments (OCCOG) and then forwarded to SCAG for incorporation into their growth forecast. "If all works (well), the Center's, OCCOG's, and SCAG's projections are the same" (Gayk 1999). The projections from each of these sources are slightly different. DOF projects the highest population for the county, but does not factor in local land-use decisions in the calculation of these forecasts. Land in Orange County is being consumed, which limits future development, especially as the county approaches 2020 when it will reach first stage build-out. Furthermore, the bulk of Orange County housing stock is relatively new. Thus, "residential redevelopment will not become a major driving force for adding new units to the housing stock for some time to come. The number of new housing units added will be limited, and the level of development will continue to decline as we reach 2020" (Gayk 1999).

Historically, urban development occurred in the part of the county closest to Los Angeles, but it has been reaching further south and will continue to occur in the southern part of the county (County of Orange 1995). Conceptually, the county can be divided into two portions: (1) the older, northern industrial portion of the county, which includes the "central cities" of Anaheim and Santa Ana, the county's two largest cities; and (2) the newer, southern portion of the county, which includes residential areas and high-tech development such as one of the nation's largest industrial parks, the Irvine Spectrum. As a result of having the Irvine Spectrum within its borders, the city of Irvine can say that it has more than 400 multinational firms located in the city (Olin 1991).

Ethnic and Racial Diversity—The majority of the county's ethnic and racial minorities reside in the northern part of the county, and the southern portion of the county is predominantly White, although this is changing. The county is growing more ethnically diverse, with Whites holding a slim majority *(table 21)*.

Table 21—*1990 and 2000 population, Orange County.*

	1990	2000
	Percent	
Non-Hispanic White	64.5	51.3
Hispanic all races	23.4	30.8
Non-Hispanic Black	1.6	1.5
Non-Hispanic Asian	10.0	13.8
Non-Hispanic American Indian	0.4	0.3
Non-Hispanic other	0.1	0.2
Non-Hispanic two or more races	N/A	2.3

Source: United States Census Bureau 1990a, 2000

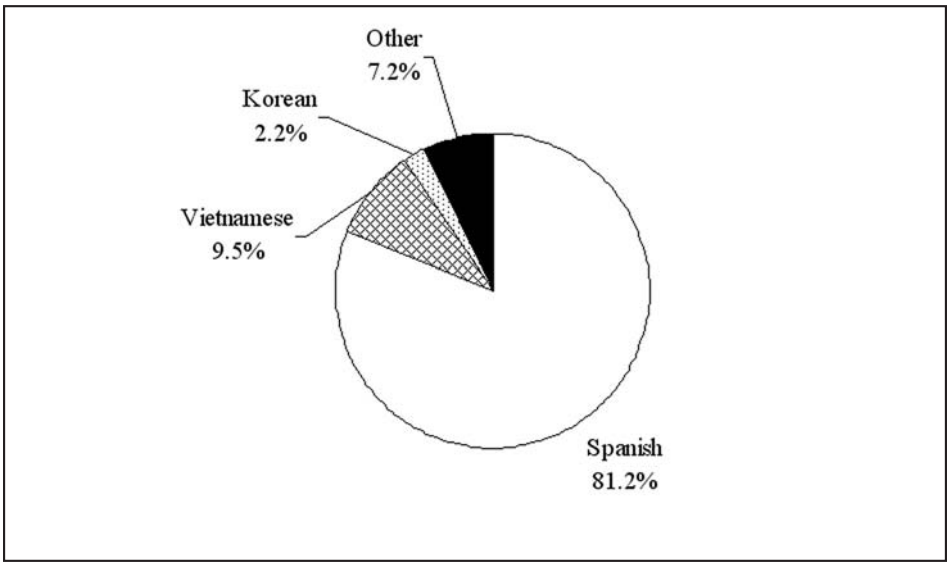
Although a majority of the county was White in 1990, individual cities like Santa Ana had a majority Hispanic population. Other cities in the north also have large Hispanic populations: Stanton, Anaheim, and Orange. Asians are also a significant racial/ethnic population in Westminster, Garden Grove, Irvine, Stanton, Santa Ana, and Huntington Beach. The highest percentages of Blacks also reside in north-county cities like Santa Ana, Anaheim, and Stanton. However, their proportion of the population remains low because of a historic lack of employment for them in the county and a history of Ku Klux Klan activity in the northern part of the county, particularly in the city of Anaheim (Cocoltchos 1992, Tolbert and de Graaf 1990). Most of the jobs in the county prior to World War II were agricultural, and Blacks coming to California were attracted to Los Angeles County where there was a greater diversity of jobs available (Tolbert and de Graaf 1990). In 1990, 23.9 percent of Orange County's population was foreign-born.

Slightly less than a third (31 percent) of residents age 5 and older spoke a language other than English at home. Of those, most (61.1 percent) spoke Spanish, though 38.9 percent spoke a language other than English or Spanish (United States Census Bureau 1990b).

Linguistic diversity is also reflected within the schools in the region. The majority of LEP students in Orange County public schools speak Spanish—mirroring the languages spoken at home—or Vietnamese (*fig. 28*). In 1997-98, 30.1 percent of Orange County's public school students were LEP.

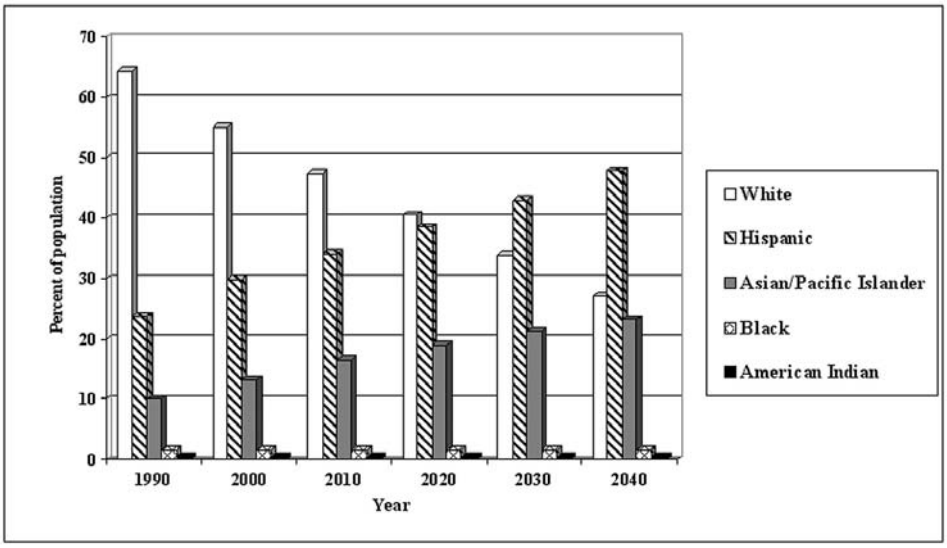
Projected Ethnic and Racial Diversity—As Orange County's population increases, racial and ethnic diversity are projected to increase through 2040. Hispanics and Asians are expected to increase as a proportion of the total population, while Whites are expected to decrease as a proportion of the total population (*fig. 29*). Blacks and American Indians represent the smallest percentages of the county's population.

Blacks are expected to remain a consistently small proportion of the population through 2040, and American Indians are expected to constitute an even smaller proportion of the population *(table 22)*.



Source: California Department of Education 1998b

Figure 28—Limited-English-Proficient (LEP) students in Orange County public school districts, by language, 1997-1998.



Source: State of California Department of Finance 1998

Figure 29—Racial and ethnic diversity trends for Orange County.

Table 22—*Percent race/ethnicity and percent change in Orange County, 1990-2040.*

Racial/ethnic group	1990	2000	2010	2020	2030	2040	Cumulative percent change
	Year						
White	64.34 -	55.08 (-9.26)	47.48 (-7.60)	40.59 (-6.89)	33.81 (-6.78)	27.12 (-6.69)	-37.22
Hispanic	23.60 -	29.86 (6.26)	34.12 (4.26)	38.49 (4.37)	42.99 (4.50)	47.80 (4.81)	24.20
Asian/Pacific Islander	10.07 -	13.20 (3.13)	16.50 (3.30)	18.94 (2.45)	21.23 (2.29)	23.13 (1.90)	13.06
Black	1.63 -	1.56 (-0.07)	1.58 (0.03)	1.64 (0.06)	1.64 (0.00)	1.63 (-0.01)	0.00
American Indian	0.35 -	0.31 (-0.05)	0.32 (0.01)	0.33 (0.01)	0.32 (0.00)	0.31 (-0.01)	-0.04

Source: State of California Department of Finance 1998

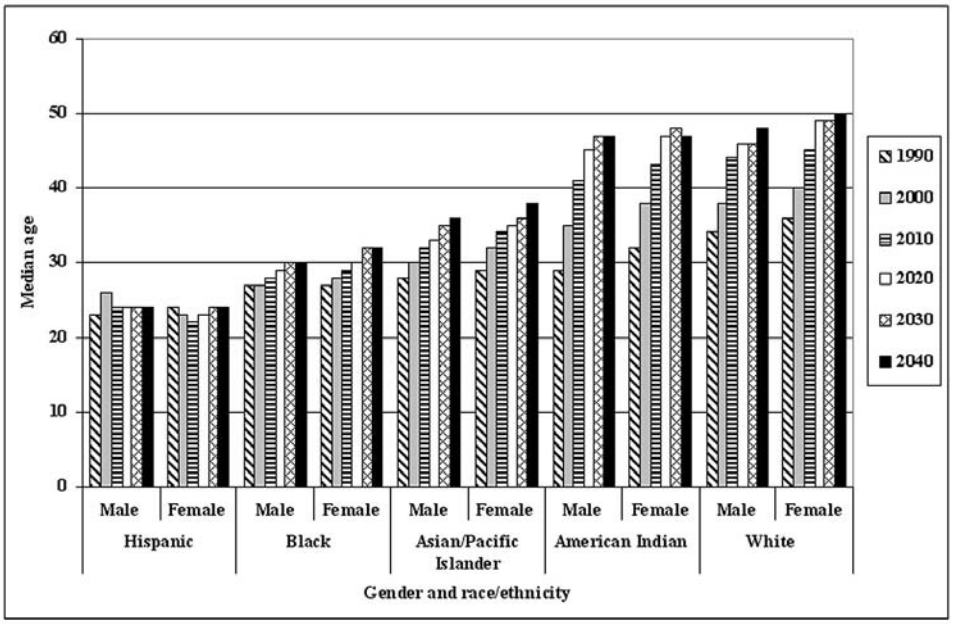
Changes in the area population's age distribution are also expected across the forecast period. The overall median age for the county is expected to increase, from 31 to 33 years. Although other counties show an older median age among females, that pattern is not consistent in Orange County across all ethnic/racial groups. American Indians and Whites are expected to have the greatest gains in median age (from 30.5 to 47 and 35 to 49, respectively), followed by Asian/Pacific Islanders (from 28.5 to 37 years). The county's Black population shows less of an increase in median age (27 to 31 years), while Hispanics have the youngest age structure, remaining at a median age of 24 years throughout the forecast period (*fig. 30*).

Development and Real Estate

Building trends in Orange County from 1987 to 1998 reveal that with the recession, building plummeted *(fig. 31)*. The largest decreases in building occurred in residential incorporated and unincorporated areas, as well as non-residential developments in incorporated areas. Non-residential building in unincorporated areas remained a small proportion of building in the county.

In 1990, Orange County had 827,066 households and 875,072 housing units. The vast majority (94.5 percent) of housing units were occupied, although a few

Figure 30—Median age by gender and race/ethnicity, Orange County, 1990-2040.



Source: State of California Department of Finance 1998

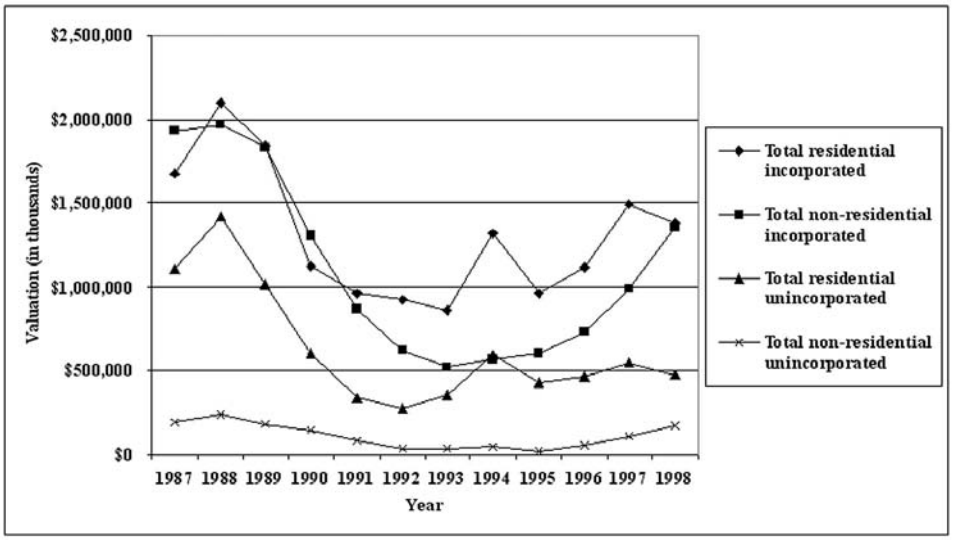


Figure 31—Building trends, Orange County, in 1998 dollars, 1987-1998.

Source: Construction Industry Research Board 1988-1999

(5.5 percent) were vacant (United States Census Bureau 1990a). Of the occupied housing units, a majority (60.1 percent) were owner-occupied, and 39.9 percent were renter-occupied (United States Census Bureau 1990a). The median value of owner-occupied housing units in 1990 was $252,700, and the median rent was $790 per month.

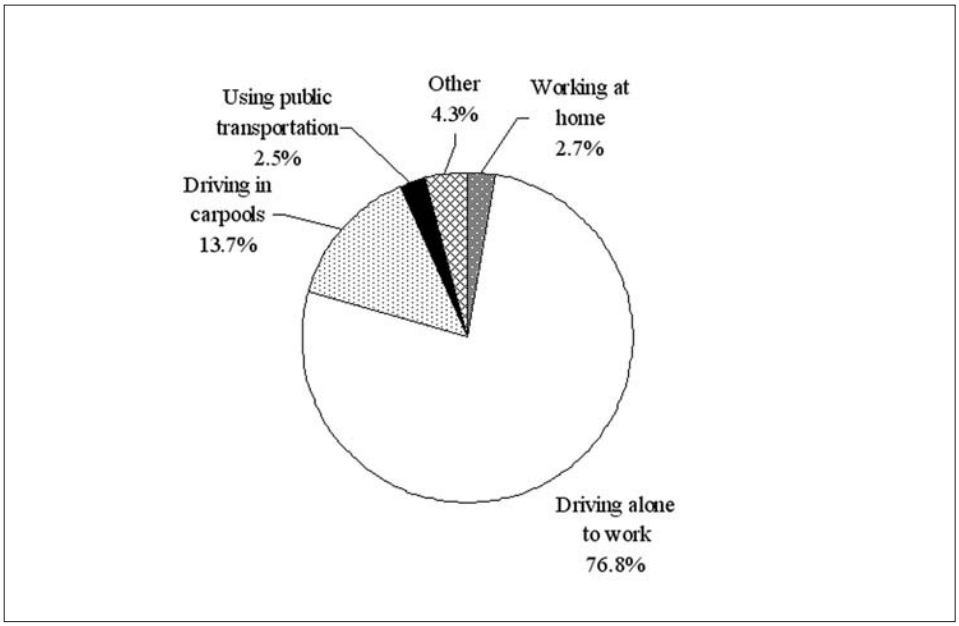
Quality of Life Indicators

Transportation, Commuting, and Employment—In 1990, there were 1,278,661 workers age 16 and older in Orange County, and an average of 1.9 vehicles per household (United States Census Bureau 1990b). Eighty-three percent of the population who lives in Orange County also works in Orange County (Southern California Association of Governments 1999). The remainder work in Los Angeles (15 percent), Riverside (1 percent), or San Bernardino (1 percent) Counties. The majority (76.8 percent) of workers in Orange County in 1990 drove to work alone, although less than a fifth carpooled to work (13.7 percent) (United States Census Bureau 1990b) *(fig. 32)*. The average travel time to work was 25.5 minutes, a slightly longer commute than the average of 24.8 minutes for workers in the SCAG region as a whole.

In February 2000 the unemployment rate in the county was 2.3 percent. Services and retail trade account for almost half of all employment in the county followed by manufacturing (16.8 percent) and government (10.7 percent) (www.fullerton.edu/cdr/county.html). The fewest number are employed in mining and agriculture, a shift from earlier days in the county. While land in farms in the county decreased 4 percent from 1992 to 1997, the market value of agricultural products sold increased to $228,881,000 from 1992 to 1997, an increase of 23 percent (United States Department of Agriculture 1997). The top five agricultural commodities sold in the county are nursery and greenhouse crops, fruits and berries, vegetables, aquaculture, and grains (United States Department of Agriculture 1997). The median family income in 1998 was $61,812 and was expected to reach $63,478 in 1999 (www.fullerton.edu/cdr/county.html).

Education—Orange County serves the largest number of students in its elementary schools *(table 23)*. The county also has more elementary schools (371) than middle and high schools (76 and 59, respectively). Average enrollment per school is greatest at the high school level, which is the pattern across the assessment area and all counties. Orange County serves about 9 percent of the assessment area's school enrollments. County schools have the third highest enrollment overall (exceeded

Figure 32—Commuting patterns, workers 16 and older, Orange County, 1990.



Source: United States Census Bureau 1990b

only by Los Angeles and San Diego Counties), and they are third in highest average enrollment per school. Students in 2nd through 11th grade were tested using the Stanford 9 at 501 of the county schools. Orange County's ranking in academic performance for 1999 was a mean of 6.39 out of 10 (based on the similarity index, www.cde.ca.gov), indicating somewhat higher-than-average performance than similar schools. Although 7.2 percent and 17.8 percent of schools in the county performed well below or below average compared to similar schools, 22.8 percent were well above average and 28.2 percent were above average.

Table 23—*Enrollment and number of schools, Orange County, 1998-1999.*

Type of school	Total enrollment	Percent of total enrollment	Number of schools	Average enrollment/ school
Elementary	256,017	56.3	371	690
Middle/Junior High	75,055	16.5	76	988
High School	123,818	27.2	59	2,099
Total	454,890	100.0	506	

Source: California Department of Education 1998a

Health Care—The largest number of health care establishments in the county deliver ambulatory health care services, followed by social assistance, nursing and residential care, and hospital care *(fig. 33)*. The county has 37 hospitals, representing 9.3 percent of the assessment area's total hospitals (ahd.tool.net/list.php3/mstate=ca). Slightly more than half (59.5 percent) of the hospitals are for-profit, and more than one-third are nonprofit (37.8 percent), with the balance unclassified (2.7 percent). For those hospitals with reported data (31 hospitals), a total of 6,818 beds and 20,282,375 total patient days were recorded in 1999. The county ranked second in the number of hospitals, comparable to its second place ranking in population.

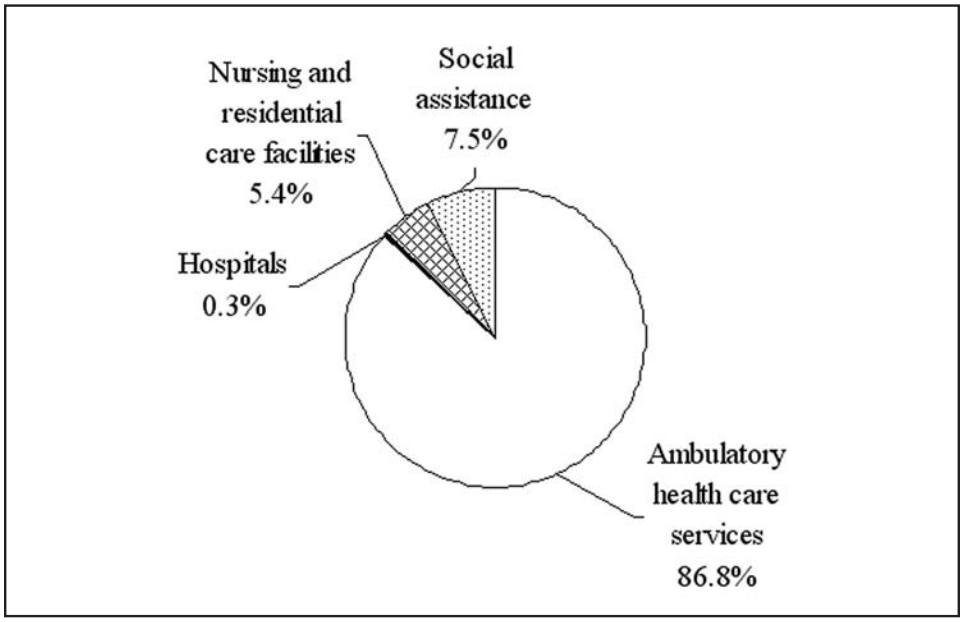


Figure 33—Health care and social assistance establishments, Orange County, 1997.

Source: United States Census Bureau 1999a

Recreation and Tourism—Among the assessment area's 26 counties, Orange County ranked third in the 1997 economic census in accommodations and food services, and second in arts, entertainment, and recreation (United States Census Bureau 1999b, 1999c). A total of 5,397 accommodation and food-services establishments, with $4,241,737,000 in receipts, was reported. Arts, entertainment, and recreation services involved 575 establishments, with receipts totaling $1,680,012,000.

Orange County offers a number of special sites for recreation and tourism, too numerous to list here. World-famous Disneyland and Disney's California Adventure are significant tourist draws for those interested in amusement parks (Disneyland.Disney.go.com/disneylandresort). Knotts Berry Farm is another amusement park located in the county (www.knotts.com). Boasting 42 miles of shoreline, the county offers prime surfing and shoreline opportunities (Thomas Bros. Maps 1998). A number of State Beaches fall along the Orange County coastline, with many serving as nature preserves (www.wildernet.com b). Further inland the Cleveland National Forest, spanning Orange, Riverside, and San Diego Counties, offers open space and escape from these very urban areas (www.wildernet.com a).

Environmental Indicators

Water Quality—Orange County crosses four watersheds: San Gabriel Reservoir, which includes the cities of Duarte south to Seal Beach; San Jacinto, which spans eastern Orange County to Hemet; Santa Ana, which includes the area from Anaheim to Riverside; and Aliso-San Onofre, which includes south Orange County (www.epa.gov/surf3/surf98/county.html). (Watersheds frequently cross county boundaries. Therefore, some counties may include watersheds that are also located in other counties.) The San Jacinto watershed was assigned a "4" by the EPA, indicating "less serious water quality problems but high vulnerability to pollution stressors." (According to the EPA's Index of Watershed Indicators procedures, a pollution stressor includes aquatic/wetland species at risk, toxic loads above limits, urban runoff potential, agricultural runoff potential, population change, hydrologic modification, estuarine pollution susceptibility, and atmospheric deposition.) The San Gabriel and Santa Ana watersheds were assigned a "3," indicating "less serious water quality problems and low vulnerability to pollution stressors." Aliso-San Onofre was assigned a "1," representing "better water quality and low vulnerability to pollution stressors."

Air Quality—Orange County has the third largest population of the 26 counties, paired with the third highest emissions in various categories *(table 24)*. Orange County is third highest in reactive organic gas emissions, seventh in total organic Gas emissions, and sixth in carbon monoxide emissions *(appendix D)*. The majority of emissions are projected for marginal decreases dependent upon emission type. particulates are expected to increase, primarily from area-wide sources, according to the California Air Resources Board (1999).

Table 24—*1996 estimated and 2010 forecasted annual average emissions, Orange County (cells do not add to column totals due to rounding error).*

Year	Emission category	Emission type[1]						
		TOG	ROG	CO	NOx	SOx	PM	PM10
1996	Stationary	120	66	7	14	1	6	3
	Area-Wide	46	38	100	6	0	110	58
	Mobile	130	120	1,100	160	3	7	6
	Natural	1	0	8	0	-	1	1
	Total	300	220	1,300	180	5	130	69
2010	Stationary	150	83	8	13	2	6	4
	Area-Wide	45	37	72	7	0	130	68
	Mobile	57	52	700	100	4	7	5
	Natural	1	0	8	0	-	1	1
	Total	250	170	790	120	6	150	79

Source: California Air Resources Board 1999

[1]TOG: total organic gases; ROG: reactive organic gases; CO: carbon monoxide; NOx: nitrogen oxides; SOx: sulfur oxides; PM: particular matter; PM10: particulate matter less than or equal to 10 microns (*appendix D*).

Implications

Orange County projections are consistent with statewide trends showing that by 2040 Latinos will be the dominant ethnic group and that White residents will not only become a smaller proportion of the population, but their actual numbers will decline as well (Haldane 1998). Factors contributing to the declining White population are the aging, and relatively low birth rate, of the baby boom generation and the propensity of baby boomers to leave Orange County upon retirement (Haldane 1998). This is coupled with high Asian and Latin American immigration, and relatively high birth rates among these populations, leading to a shifting population distribution.

These projected demographic changes present the county with some interesting challenges. If the Latino population in the county remains young and centered in the older, urban areas of the north and a decreasing and aging White population remains in the south, the county will have to find a way to meet the needs of an ethnically diverse population, as well as a population diverse in age. "That could change politics," according to UC Berkeley political science professor Bruce Cain who forecasts "struggles between aging populations with their own demands of the government and younger Latinos who will still need family and children's services" (Haldane 1998, p. B7).

In addition to demographic changes, the county faces the unknown with the reuse of the former El Toro and Tustin Marine Corps Air Stations. The debate over the bases' reuse has at least two lasting implications for the county: First, the alliances and opponents created by the debates could significantly alter the political climate. It is not clear what the effects of this altered political climate will be except that El Toro especially is such an all-consuming battle that "…experts

worry the standoff could obstruct efforts to tackle other regional issues, such as affordable housing, transportation and education" (Sterngold 1999, p. A18). Second, how bases will actually be developed will greatly affect the future growth of the county. The two major proposals are to either create an international airport or a Great Park at the former El Toro Marine Base. Each proposal has significant natural resource implications ranging from the impact on air quality, the generation of noise, increased traffic levels, and a change in overall land-use patterns. Other natural resource challenges the county is facing include the impact of urban run-off on the water quality at the county's beaches and the increasing lack of affordable housing, which causes workers to reside outside the county and commute long distances from Los Angeles, San Bernardino, and Riverside, adding to a decrease in air quality in Orange County and the region as a whole.

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Riverside County

- In land area, the county is 7,200 square miles, making it the fourth largest county in California.
- County population is expected to double by 2020.
- The county is completing a 3-year integrated planning process that combines three plans: a revision of the General Plan, a habitat and species conservation plan, and a transportation plan.
- Northwest Riverside County is a distribution hub for the western United States.

History

According to Brown's (1985) history of Riverside County, the first dwellers in the foothills and valleys of western Riverside County included the Serrano, Luiseño, Cupeño and Cahuilla tribes (*fig. 34*). The first three tribes were primarily hunters and gatherers; the Cahuilla were skilled not only in hunting and gathering but also in agriculture. Lake Cahuilla was an important source of food, yielding clams and fish. The lake existed from A.D. 900-1500 (Brown 1985) and occupied the area where the Salton Sea is today. In prehistoric times, the lake was 100 miles long, 34 miles at its widest and 300 feet deep, which is about four times larger than today's Salton Sea (Murkland 1999). In A.D. 1500 the accumulated deposits from the Colorado River and the turning back of the Colorado to the Gulf of California signaled the beginning of the end of the lake. Archeologists have found evidence of the human disruption this caused by mapping seven generations of fish traps rebuilt in concentric rings around the lake as the water receded (Brown 1985). This archeological evidence suggests numerous difficulties for the Cahuillas' ancestors. Their food supply disappeared quickly and the desert was slow to replace it. As a result, the villages fanned out in search of new food sources. However, most of the settlements remained in the western part of the county because the eastern desert was so arid (Brown 1985).

Until 1772, the Riverside County region lay undiscovered by Europeans who clung to the seacoast with their missions and presidios as near to good harbors as possible (Brown 1985). Lieutenant Pedro Fages, the military governor of San Diego, was the first to travel through the region in a search for deserters. In 1774, Captain Juan Bautista de Anza, leading a contingent of 34 Spanish soldiers, set out from Tubac, Arizona in search of a land route to the riches of California. His route later became the Anza Trail, which led from Tubac to Monterey and facilitated the colonization of California (Harrison 1994). Despite explorations by Fages and de Anza, settlement of the region by Europeans was slow because of its distance from the coast and occupation by unmissionized tribes (Brown 1985). In 1821, the fathers of the San Gabriel Mission established a rancho run by Indians at the far end of the San Bernardino Valley. This area, which is now western Riverside County, was used by the mission to raise grain and cattle (www.co.riverside.ca.us). The pace of settlement rapidly increased with Mexican independence and the passage of the Secularization Act of 1833. According to Brown (1985), the number of privately held ranchos in California was about 20 during the Spanish regime and leapt to around 500 during the Mexican regime. Sixteen ranchos were granted within Riverside County, all at the western end. Juan Bandini received the first land grant known as Rancho Jurupa, which consisted of 32,000 acres in the Santa Ana River Valley. Other ranchos in the area were even larger, up to 48,000 acres.

After Mexico was defeated and the Treaty of Guadalupe Hidalgo ceded most of the Southwest to the United States in 1848, bureaucrats from San Diego started to look toward the inland area and demand taxes (Brown 1985). In the 1860s, news of gold brought interest in developing a stage route from Los Angeles directly east to the Colorado River. Later, railroads would compete to become the first to set track through the region.

Figure 34—Riverside County (shaded area) is east of Orange County.

Source: 50 Individual States—Counties 1995

The first city to develop in the region was Riverside in 1883. John Wesley North, a Methodist from New York, founded the city. As a reformer, he had a vision to develop a colony in California based on the ideas of temperance and pacifism. North, in partnership with Dr. James P. Greves and other investors, formed the Southern California Colony Association and purchased the future site of Riverside (Brown 1985, Harrison 1994). The early site was divided into parcels for small farms. Indians formed the earliest work force for the community, helping to dig irrigation ditches and working as laborers in the fields and as servants to colonists (Brown 1985). Later, Chinese formed much of the labor force in all phases of the citrus industry. The development of the Riverside and Gage canals in the 1880s was fundamental to the growth of agriculture in the area and helped Riverside develop as a center for citrus, particularly oranges. The development of the county's early communities depended on engineering feats that could bring water to them. In 1893, residents of Riverside petitioned for and were granted their own county, which was carved from San Bernardino and San Diego Counties. Historians Brown

(1985) and Fitch (1993) describe the competition between San Bernardino and Riverside as the impetus for the formation of Riverside County.

The history of Riverside County is a story of water acquisition. From the development of the Riverside and Gage canals to efforts to divert and dam the Colorado River, the development of the county has been determined by the success of these efforts. According to southern California water officials, "the coming century will bring little in the way of new sources of fresh water. Instead, residents and businesses will need to find more effective ways of using the water that's here" (Muckenfuss 1999, p. 17). The Eastside Reservoir near Hemet doubles the water storage capability of the Metropolitan Water District, providing a six-month emergency supply of water for southern California. However, the reservoir is the agency's last planned reservoir (Muckenfuss 1999).

Riverside County Today

Riverside County is part of the Inland Empire. The population in the Inland Empire region of Riverside and San Bernardino Counties is projected to double from 1.4 million people to 2.8 million by 2020 (Petix 1999). Residents and businesses find the Inland Empire attractive because of cheaper land. For example, in 1999 the median home price in Riverside County was $161,552 (The Business Press 2000), compared to twice that amount in Orange County. Because Riverside County is attractive for residential development, a major trend in the unincorporated areas of the county is the conversion of agricultural land, primarily dairies and citrus acreage, to housing tracts (Moran 2000).

With explosive growth projected for Riverside County, long-term comprehensive planning has become a top priority for the county. As a result of the predicted exponential growth for the Inland Empire, Riverside County is currently in the process of revising its general plan. The county held meetings about the general plan revision as well as workshops for each of the 19 area plans in the county. The Riverside Transit Agency held meetings regarding the future of rail in Riverside County. All of these meetings provided a unique opportunity to observe the challenges many inland counties are facing as formerly agricultural areas urbanize. Riverside County is on the verge of phenomenal change, and the content of these meetings provides a glimpse into the opportunities and challenges facing future high-growth areas of California. Not all 19 meetings were attended, but the content from meetings reported here gives insight into the types of issues that were a concern to citizens of the county.

County officials call the Riverside County Integrated Plan (RCIP) unique because it will connect the General Plan with transportation and habitat conservation plans for the western part of the county. The integrated planning process is a "stakeholder driven process" (Riverside County Integrated Plan Community Meeting, Moreno Valley 1999) whereby county planners held public meetings, workshops, and focus groups and have conducted surveys in order to solicit input from citizens as well as from stakeholders at "technical and policy levels" such as the California Department of Fish and Wildlife, Caltrans, and groups appointed by the County Board of Supervisors (Riverside County Integrated Plan Community Meetings, Moreno Valley and Beaumont 1999). Advisory committees have also been appointed to help guide the preparation of the plan (Harrod 2000). According to Riverside County planners, outcomes from workshops revealed that people liked their communities overall, they were aware of growth pressures for their communities, and they supported the planning process (Riverside County Integrated Plan Community Meetings, Moreno Valley and Beaumont 1999). Residents were concerned about unchecked annexation and the representation of unincorporated areas as the county continues to grow. Two-thirds of workshop participants said the county should plan for growth, 22 percent said the county should let growth occur in an unrestricted manner, and 11 percent said growth should be restricted (Riverside County Integrated Plan Community Meetings, Moreno Valley and Beaumont 1999).

The public meetings and workshops indicated that the single most evident quality about Riverside County is its diversity (County of Riverside 1999). Because Riverside County is diverse in topography, people, and community character, "its vision of the future must respect the fact that 'one size does not fit all'"(County of Riverside 1999). The public meetings and workshops identified 12 areas of concern for planning and the future of the county: (1) population growth, (2) protection of community and neighborhood character, (3) housing, (4) transportation, (5) conservation and protection of open space, (6) air quality, (7) jobs and the economy, (8) preservation of agricultural lands, (9) educational facilities, (10) plan integration, (11) financial realities, and (12) intergovernmental cooperation (Riverside County Integrated Plan Community Meetings, Moreno Valley and Beaumont 1999).

In the public meetings, each community saw their area as unique, with needs different from the rest of the county. Because of the uniqueness of each of the different regions in Riverside County, the county is developing area plans to specifically address the needs of the different regions. For example, in the RCIP meeting in Beaumont, residents described their region as "the Pass Area" whose rustic and rural character and cherry orchards attracted people to come live there. The "Pass Area" refers to the San Gorgonio Pass, wherein lie the communities of Beaumont, Cherry Valley, Cabazon, Banning, and Calimesa. However, with population growth, many residents expressed concern that they would not be able to keep their cherry orchards in business because water could be assessed at the residential rate rather than the agricultural rate as the area urbanizes. There were also concerns that the Pass Area would lose its young people to other parts of the county as well as to other counties because there were no jobs to keep them there. For the Pass Area residents, particularly the older people, the concerns centered on transportation. Older people wanted transportation available to help them navigate around the region, and they also saw its importance in attracting jobs to the region. Many residents were concerned that without adequate transportation, low-income people were "locked in" and could not get to jobs that might help them out of poverty. There was recognition that the Pass Area is aptly named because it is primarily an area that people "pass through," without stopping long, either on their way to Arizona or to Los Angeles. The question was how to attract people to the area while preserving community identity and rural character.

In the RCIP meeting in Moreno Valley, an area much more urbanized than the Pass Area, concerns focused on the ability of the county to balance multiple and conflicting needs of different interest groups. For example, residents wondered how the county would succeed at protecting 164 species in the Multiple Species Habitat Conservation Plan while also expanding transportation and providing public access to open space. Furthermore, there were concerns that much of the housing in Moreno Valley was vacant, so the future focus should not be on new construction, but filling existing housing. Residents recognized constraints on growth such as the availability of water, poor air quality, the need for high-paying jobs, and the congestion in the existing transportation network. Residents realized that growth cannot be stopped but must be accommodated.

At the Riverside Transit Agency's Rail Review meeting, transit officials were concerned about the projected doubling of the population in western Riverside County combined with a projected tripling of traffic volume. Transit officials agreed that the area is ripe for a public transit system other than buses, which are not expected to be able to meet projected demand. Rail was touted as the best option because it naturally consolidates the population and has the ability to move large numbers of people to many destinations. The planning for a rail system must begin now because the process of moving from the conceptual planning phase to the earmarking of Federal dollars to fund such a system will take 15 to 20 years (Riverside Transit Agency Rail Review 2000).

Themes common to the meetings attended were how to preserve the rural character of the area that drew residents to it in the first place; how to preserve

agriculture, yet attract new business; and how to accommodate the housing and service needs of the population already in the area while also meeting the needs of those who are projected to move to the county. During these meetings, differing conceptions of "rural" arose between current residents and those who had moved to the area in the last couple of years (Riverside County Integrated Plan Area Plan Meetings, Eastvale and Lake Mathews 2000). To long-term residents, a rural area provides wide-open spaces, very low-density housing, the ability to raise livestock, raise crops and ride horseback unencumbered by roads and housing developments. To newer residents, "rural" meant clean air, bike paths and horse trails, low-density housing that was actually a much higher density than current zoning, and quiet living uninterrupted by agricultural operations. The question that consistently arose in the meetings was how the county will balance the multiple and conflicting interests that come with growth. In other words, how can Riverside County attract economic activity and preserve a good quality of life?

Sociodemographic Characteristics

Projected Population—Four agencies develop projections for Riverside County: DOF, SCAG, and the two regional COGs. The two regional COGs are Western Riverside Association of Governments (WRCOG) and the Coachella Valley Association of Governments (CVAG). The population for the two COGs added together is equal to SCAG's projection for the region *(table 25).* (Any discrepancies are due to rounding error.) Thus, there is agreement on the COG and regional level regarding population projections through 2020 for the county. However, there are some discrepancies between DOF and SCAG numbers. SCAG projections are consistently higher than DOF's projections for the county. What is consistent across all the agencies is the predicted doubling of the population between 1994 and 2020.

Table 25—*Population projections, Riverside County, 1990-2040.*

Source	1990	1994	2000	2005	2010	2015	2020	2030	2040
U.S. Census	1,170,413[1]	-	1,545,387	-	-	-	-	-	-
DOF	1,194,623[2]	-	1,570,885	-	2,125,537	-	2,773,431	3,553,281	4,446,277
SCAG[3]	-	1,376,900	1,687,800	1,976,900	2,265,300	2,531,700	2,816,000	-	-
WRCOG	-	1,066,200	1,315,300	1,564,900	1,814,100	2,033,900	2,264,000	-	-
CVAG	-	310,700	372,300	412,100	450,900	497,600	551,800	-	-

Source: United States Census Bureau 1990a and 2000, State of California Department of Finance 1998, Southern California Association of Governments 1998, Western Riverside Council of Governments 1998, Coachella Valley Association of Governments 1998

[1] Data from April 1.

[2] Data from July 1.

[3] Projections from SCAG are subject to change, based on the agency's final numbers, not yet available.

Ethnic and Racial Diversity—The racial/ethnic composition of Riverside County grew more diverse between 1990 and 2000 *(table 26).*

Table 26—*1990 and 2000 population, Riverside County.*

	1990	2000
	----------Percent ----------	
Non-Hispanic White	64.4	51.0
Hispanic all races	26.3	36.2
Non-Hispanic Black	5.1	6.0
Non-Hispanic Asian	3.3	3.8
Non-Hispanic American Indian	0.7	0.7
Non-Hispanic other	0.2	0.2
Non-Hispanic two or more races	N/A	2.2

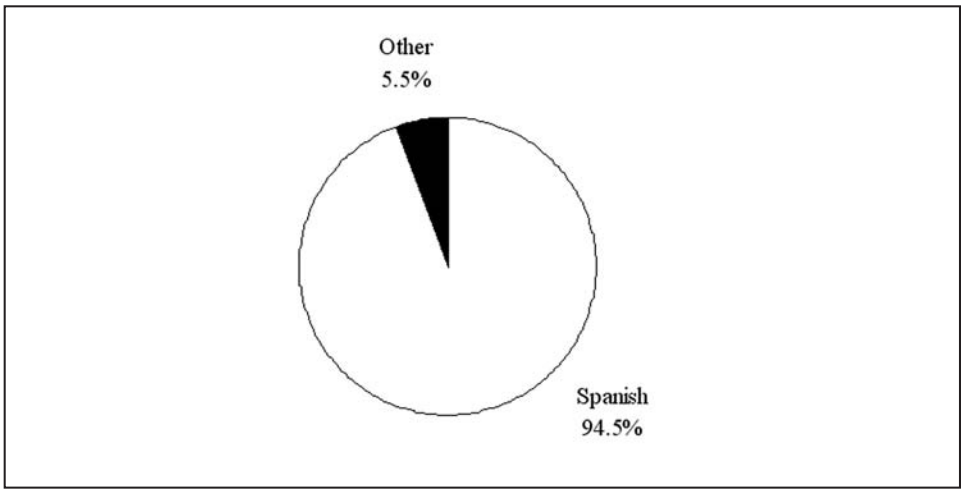
Source: United States Census Bureau 1990a, 2000

Riverside County was predominantly White, though Hispanics represented approximately one-fourth of the population. In 1990, 14.8 percent of Riverside County's population was foreign-born.

Almost 25 percent of residents 5 years and older spoke a language other than English at home. Of those, 79.4 percent spoke Spanish and 20.6 percent spoke a language other than English or Spanish (United States Census Bureau 1990b).

Linguistic diversity is also reflected within the schools in the region. The majority of LEP students in Riverside public schools speak Spanish—mirroring languages spoken at home—or a selection of other languages *(fig. 35)*. (Other languages include Vietnamese, Hmong, Cantonese, Pilipino, Khmer, Korean, Armenian, Mandarin, Lao, Russian, Punjabi, Arabic, Mien, Farsi and other languages of China and the Philippines.) In 1997-98, 19.1 percent of Riverside County's public school students were LEP.

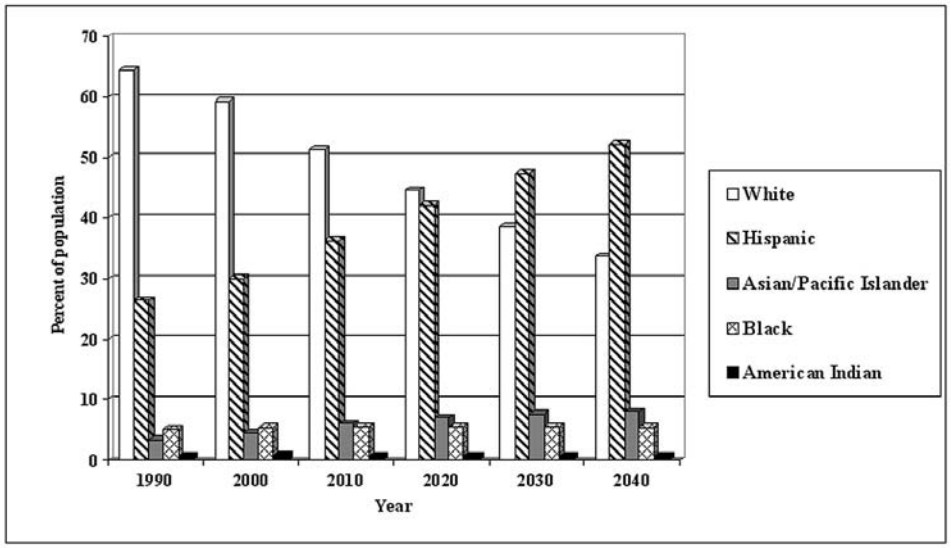
Figure 35—Limited-English-Proficient (LEP) students in Riverside County public school districts, by language, 1997-1998.



Source: California Department of Education 1998b

Projected Racial and Ethnic Diversity—Along with the increased population in the county, projections for Riverside show two significant demographic trends: (1) a greater proportion of the population will be Hispanic, and they will be increasingly younger; and (2) the older population will grow "by 85 percent in Riverside and San Bernardino Counties between now and 2020, reaching a population of more than 650,000" (Petix 1999, p. 10). The Hispanic population will increase as a proportion of the population through 2040, whereas Whites are projected to decline as a proportion of the population (*fig. 36)*.

Figure 36—Racial and ethnic diversity trends for Riverside County.



Source: State of California Department of Finance 1998

The county's Asian and Black populations are projected to increase slightly as a proportion of the population, while American Indians are expected to decline as a proportion of the population over the forecast period (*table 27*).

Table 27—*Percent race/ethnicity and percent change in Riverside County, 1990-2040.*

Racial/ethnic group	1990	2000	2010	2020	2030	2040	Cumulative percent change
	Year						
White	64.47 -	59.33 (-5.14)	51.35 (-7.97)	44.59 (-6.76)	38.70 (-5.89)	33.74 (-4.96)	-30.73
Hispanic	26.38 -	30.05 (3.68)	36.40 (6.35)	42.18 (5.78)	47.54 (5.37)	52.30 (4.75)	25.92
Asian/Pacific Islander	3.30 -	4.43 (1.12)	6.04 (1.62)	6.98 (0.94)	7.64 (0.66)	8.01 (0.37)	4.71
Black	5.13 -	5.42 (0.29)	5.46 (0.04)	5.54 (0.08)	5.46 (-0.09)	5.34 (-0.12)	0.21
American Indian	0.72 -	0.77 (0.05)	0.74 (-0.03)	0.70 (-0.03)	0.66 (-0.05)	0.61 (-0.05)	-0.11

Source: State of California Department of Finance 1998

The median age of Riverside County residents is expected to be the same in 2040 as in 1990, though interim years show some fluctuation. It will remain one of the younger populations on average for the SCAG region. Whites show the greatest median age in Riverside through the forecast period (increasing from 35 to 44 years) followed by Asians (from 27.5 to 33) and American Indians (from 29.5 to 35). Blacks do not show a large increase in median age (27.5 versus 30.5), and Hispanics show almost no change in median age from 1990s' average age of 23 years (*fig. 37*). Females have higher median ages across the forecast period within Riverside County.

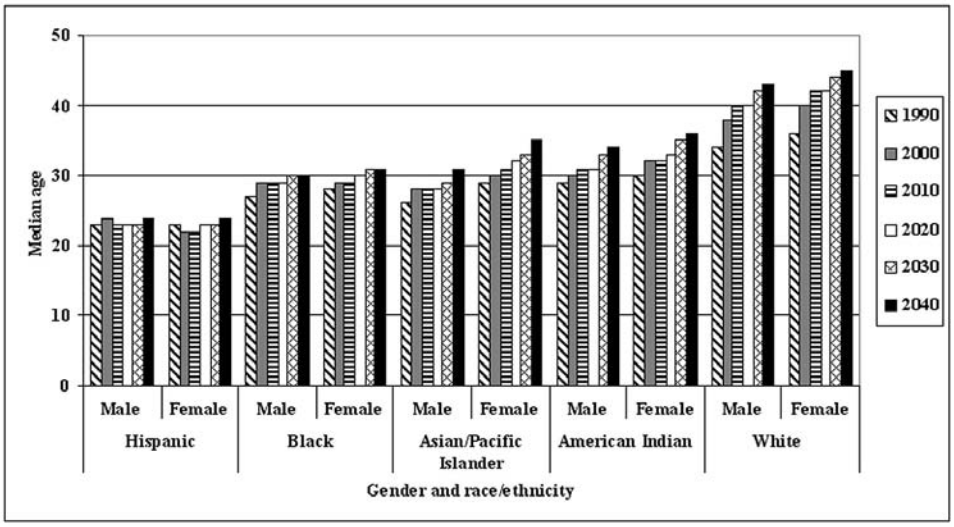


Figure 37—Median age by gender and race/ethnicity, Riverside County, 1990-2040.

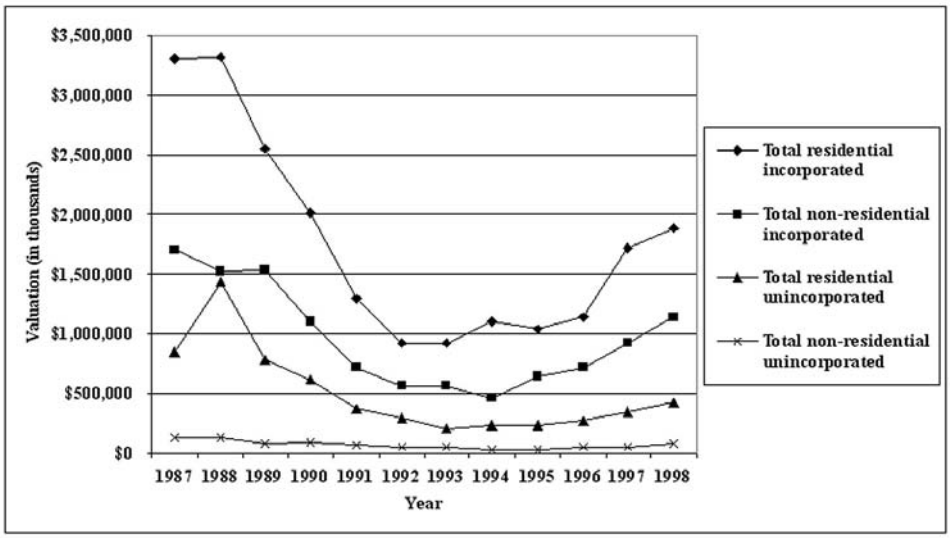
Source: State of California Department of Finance 1998

Development and Real Estate

With the recession in the late 1980s, residential building in incorporated and unincorporated areas fell sharply in the county *(fig. 38)*. Residential development represented the majority of the building in the county. With the exception of nonresidential construction in unincorporated areas, building was on the upswing.

In 1990, Riverside County had 402,067 households and 483,847 housing units. The majority (83.1 percent) were occupied, 16.9 percent were vacant (United States

Figure 38—Building trends, Riverside County, in 1998 dollars, 1987-1998.



Source: Construction Industry Research Board 1988-1999

Census Bureau 1990a). Of the occupied housing units, 67.4 percent were owner-occupied and 32.6 percent were renter-occupied (United States Census Bureau 1990a). The median value of owner-occupied housing units in 1990 was $139,100, and the median rent was $572 per month.

Quality of Life Indicators

Transportation, Commuting, and Employment—In 1990, there were 482,618 workers age 16 and older in Riverside County, and an average of 1.8 vehicles per household. More than one-fourth, 29.5 percent, worked outside the county. The majority (73.8 percent) of workers in Riverside County drove to work alone, although some carpooled to work (17.7 percent) *(fig. 39).* Public transportation was used by less than 1 percent to get to work. The average travel time to work was 28.2 minutes, longer than the average commute (24.8 minutes) of workers in the SCAG region as a whole.

Riverside County has a growing economy that is becoming more diverse. The northwest portion of the county is a distribution hub for the western United States; the southwest part of the county has a number of small manufacturers. The Interstate-215 corridor has developed a concentration of recreational vehicle manufacturers; and the Coachella Valley is a productive agricultural community as well as a resort area with the potential to attract small manufacturers such as golf club manufacturers (Moran 2000). In fact, the Coachella Valley is a microcosm of the county and holds the record for highest and lowest per capita income in the county (Kerr 2000). The Coachella Valley is also 100 miles from the Mexican border, resulting in a high Hispanic population (Kerr 2000). The county is also beginning to attract wood-fabrication manufacturers and metal fabricators (Palmer 2000). In 1997, the unemployment rate in Riverside County was 7.5 percent. For those who are employed in both Riverside and San Bernardino Counties, 26.3 percent are in services, 25.9 percent in trade, and 20.5 percent in government (www.dof.ca.gov/html/fs_data/profiles/River.xls). Riverside County is also an important agricultural area that ranks eighth in the State in the value of agricultural products sold (United States Department of Agriculture 1997). The market value of agricultural products sold increased to $1,047,525,000 from 1992 to 1997, an increase of 24 percent (United States Department of Agriculture 1997). The top five commodities in the county are dairy products, fruits and berries, vegetables, poultry, and nursery crops.

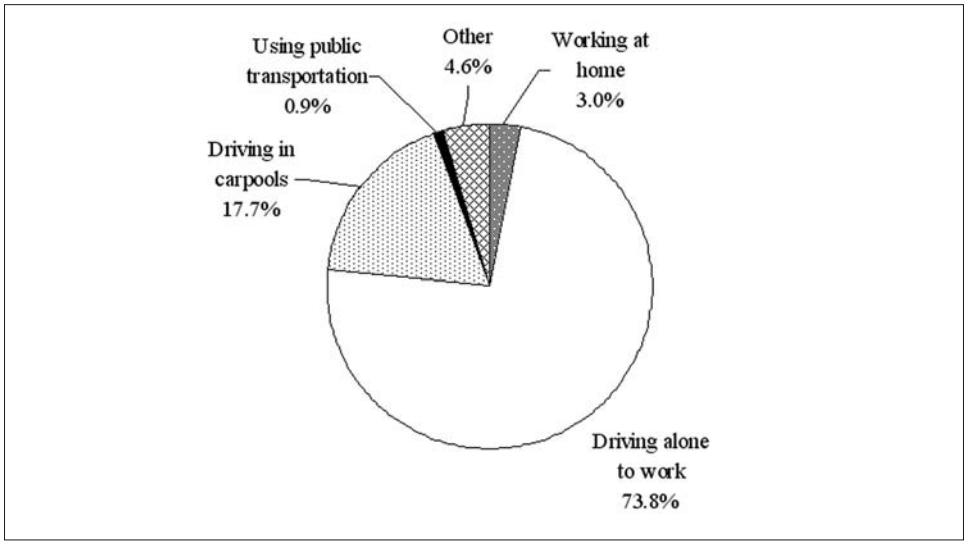


Figure 39—Commuting patterns, workers 16 and older, Riverside County, 1990.

Source: United States Census Bureau 1990b

Education—Riverside County serves the largest number of students in its elementary schools and has more elementary schools (207) than middle and high schools (54 and 36, respectively) *(table 28)*. Average enrollment per school is greatest at the high school level, which is the pattern across the assessment area and all counties. Riverside County serves 5.6 percent of the assessment area's school enrollments. County schools have the fifth highest enrollment overall, yet they are second in highest average enrollment per school. Students in 2nd through 11th grade were tested using the Stanford 9 at 293 of the county schools. Riverside's ranking in academic performance for 1999 was a mean of 4.95 out of 10 (based on the similarity index, www.cde.ca.gov), indicating lower-than-average performance than similar schools. This ranking is the second lowest for the counties within the SCAG region (only San Bernardino has a lower average). Although 21.5 percent and 25.6 percent of schools in the county performed well below or below average compared to similar schools, 11.9 percent were well above average and 17.7 percent were above average.

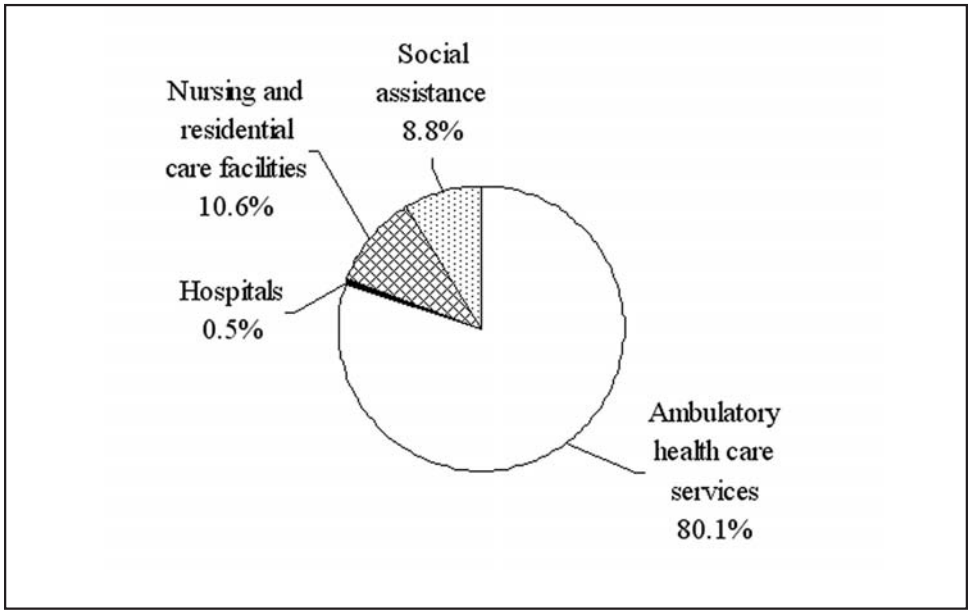
Table 28—*Enrollment and number of schools, Riverside County, 1998-1999.*

Type of school	Total enrollment	Percent of total enrollment	Number of schools	Average enrollment/ school
Elementary	154,085	54.3	207	744
Middle/Junior High	55,647	19.6	54	1,031
High School	73,878	26.0	36	2,052
Total	283,610	100.0	297	-

Source: California Department of Education 1998a

Health Care—The largest number of health care establishments in the county deliver ambulatory health care services, followed by nursing and residential care, social assistance, and hospital care *(fig. 40)*. The county has 17 hospitals, representing 4.3 percent of the assessment area's total hospitals (ahd.tool.net/list.php3/mstate=ca). Less than half (41.2 percent) of the hospitals are for-profit, and more than one-third are nonprofit (35.3 percent). The remainder are county facilities (23.5 percent). For those hospitals with reported data (15 hospitals), a total of 3,254 beds and 3,118,702 total patient days were recorded in 1999. The county ranked fifth in number of hospitals, comparable to its sixth place ranking in population.

Figure 40—Health care and social assistance establishments, Riverside County, 1997.



Source: United States Census Bureau 1999a

Recreation and Tourism—Among the assessment area's 26 counties, Riverside ranked ninth in the 1997 economic census in accommodations and food services, and seventh in arts, entertainment, and recreation (United States Census Bureau 1999b, 1999c). A total of 2,159 accommodation and food-services establishments, with $1,619,391,000 in receipts, was reported. Arts, entertainment, and recreation services involved 266 establishments, with receipts totaling $430,765,000.

The San Bernardino National Forest and the Cleveland National Forest overlap and are proximate to Riverside County. The San Bernardino Mountains are the main natural resource attraction of the Inland Empire (www.wildernet.com). Mt. San Jacinto State Park and the aerial tram near Palm Springs offer hiking and sightseeing during the summer, and snow-based activities in the winter (www.sanjac.statepark.org). The Santa Rosa Plateau Ecological Reserve offers 6,925 acres for day uses such as hiking (www.co.riverside.ca.us/activity/parks). Riverside County offers a wide variety of recreation and tourism opportunities. The Lake Perris State Recreation Area offers a variety of water recreation activities, and the California Citrus State Historic Park is a 400-acre park emphasizing the historical importance of the citrus industry in southern California (www.wildernet.com). On the eastern portions of the county lies the Colorado River, a significant draw for river-based recreational interests.

Environmental Indicators

Water Quality—Riverside County crosses nine watersheds: the Imperial Reservoir, which spans Arizona and California and includes the cities of Vidal, Earp, Parker, Blythe, Ehrenberg and Palo Verde; Bouse Wash in Arizona; Tyson Wash in Arizona; San Jacinto, which includes eastern Orange County to Hemet; Santa Ana; Aliso-San Onofre, which includes southern Orange County; Santa Margarita, which includes areas from Camp Pendleton to Temecula; Southern Mojave, which includes Twentynine Palms; and Salton Sea, which includes cities from Banning south to Calexico (www.epa.gov/surf3/surf98/county.html). (Watersheds frequently cross county boundaries. Therefore, some counties may include watersheds that are also located in other counties.) The Imperial Reservoir and Salton Sea watersheds were assigned a "5" by the EPA, indicating "more serious water quality problems but low vulnerability to pollution stressors." (According to the EPA's Index of Watershed Indicators procedures, a pollution stressor includes aquatic/wetland species at risk, toxic loads above limits, urban runoff potential, agricultural runoff potential, population change, hydrologic modification, estuarine pollution susceptibility,

and atmospheric deposition.) The San Jacinto watershed was assigned a "4," indicating "less serious water quality problems and high vulnerability to pollution stressors." The Santa Ana and Southern Mojave watersheds were assigned a "3," representing "less serious water quality problems and low vulnerability to pollution stressors." The Aliso-San Onofre watershed was assigned a "1," representing "better water quality and low vulnerability to pollution stressors." This watershed is located almost entirely in Orange County. Data are not available for the Bouse Wash, Tyson Wash, and Santa Margarita watersheds.

Air Quality—Riverside County has the 6th largest population of the 26 counties, paired with the 10th highest emissions in various categories *(table 29)*. The majority of emissions are projected for marginal decreases dependent upon emission type. Particulates are expected to slightly increase, primarily from area-wide sources, according to the California Air Resources Board (1999).

Table 29—*1996 estimated and 2010 forecasted annual average emissions, Riverside County (cells do not add to column totals due to rounding error).*

Year	Emission category	Emission type[1]						
		TOG	ROG	CO	NOx	SOx	PM	PM10
1996	Stationary	39	19	5	15	1	4	2
	Area-Wide	96	31	64	4	0	210	110
	Mobile	92	82	720	160	4	8	7
	Natural	5	3	49	1	-	8	8
	Total	230	130	840	180	5	230	130
2010	Stationary	51	26	6	14	1	4	3
	Area-Wide	100	36	67	6	0	240	130
	Mobile	43	40	460	120	5	8	6
	Natural	5	3	49	1	-	8	8
	Total	200	100	580	150	6	260	140

Source: California Air Resources Board 1999

[1] TOG: total organic gases; ROG: reactive organic gases; CO: carbon monoxide; NOx: nitrogen oxides; SOx: sulfur oxides; PM: particulate matter; PM10: particulate matter less than or equal to 10 microns (*appendix D*).

Implications

As outlined in *The Press-Enterprise* (McCue 1999), there are three economic scenarios predicted for the region. It is not known which path the county will take.

Scenario 1: Growth in the High-Technology Sector

This scenario is a positive one. It predicts that the right decisions will be made in research and business to bring about an abundance of high-tech firms and higher paying jobs to the region. Predictions such as those made by University of California, Riverside economist Michael Bazdarich that the region could become a solar energy center as the technology improves would become a reality in this scenario.

Scenario 2: Plenty of Jobs, but the Wrong Kind

This scenario is a pessimistic one. It predicts that the Inland Empire will grow because of the demand for cheaper housing and industrial space, but it will not provide a diverse spectrum of jobs. Economist John Husing's prediction that relying on growth in blue-collar jobs alone is a poor strategy turns out to be correct in this scenario. In this scenario, jobs that migrated to the area from coastal counties were primarily in the middle of the wage spectrum or lower. Husing predicts that if these jobs come to the Inland Empire, the companies providing them will continue to move overseas. He predicts that unless the county improves the educational system and, thus, the skills of the workforce, companies that pay high wages will not move to the area.

Scenario 3: Diversity of Jobs in Manufacturing

This is a positive scenario. It predicts that a diverse manufacturing base will develop in the region. In this scenario, transportation is particularly important because the region will need reliable air, trucking, and rail facilities in order to ship goods out of the region. Although this scenario is a positive one, the wealth differential between the Inland Empire and the coastal counties does not disappear because technology jobs will remain in Los Angeles and Orange Counties.

Economists at the April 2000 Inland Empire Business Exposition emphasized the importance of education for the future success of Riverside's economy. Education holds the promise for the development of a highly skilled workforce that will help attract high technology firms to the area. Today, the county faces some challenges in attracting those firms. Almost 20 percent of Riverside students in 1997-98 were LEP and exam scores on the Stanford 9 for 1999 were the second lowest in the region.

Other factors that will influence which economic scenario the county follows will be the conversion of March Air Force Base. In 1993, the base was downsized to a reserve and guard installation. For 6 years, officials from the county and the cities of Riverside, Moreno Valley, and Perris have met to map out a plan for the use of the surplus land (Churchill 1999). The March Joint Powers Commission has a conversion plan in place for the Base to become an air cargo port and industrial center (Guardado 2000).

Water availability will also affect the future growth of Riverside County. Already water is quite expensive and with no new sources planned for the future, the county will be challenged by its need to support the projected future population growth. The lack of affordable housing in Orange County and many parts of Los Angeles has caused people to purchase homes in Riverside County and commute long distances to jobs in coastal urban areas. Not only is this difficult for commuters who primarily use the 91 freeway corridor, but it results in urban sprawl, increased air pollution, and the loss of open space. Community meetings held for the update of the Riverside County General Plan indicate that Riverside County residents see urban growth coming to the county and that they want to protect the county's unique topography and open space. The challenge for county and city planners as well as natural resource managers will be how to encourage growth in a manner that also permits the protection of unique and valuable wildland areas.

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San Bernardino County

- It is the United States' largest county in geographic area.
- It is productive in the following: dairy, cattle, citrus, grapes, and mineral extraction.
- There has been extensive military presence since World War II.
- The county was hard hit by the economic recession of the early 1990s, military base closures, and closure of major industries such as Kaiser Steel.
- The county is the focus of dramatic population growth into 2040.

History

The history of San Bernardino County can be divided into the following phases: the early Indian period, the Rancho period, the Mormon period, the railroad period, and urbanization (Beattie and Beattie 1951, Lyman 1996, Schuiling 1984) *(fig. 41)*. Archeological evidence reveals that the San Bernardino County area has been inhabited for at least 12,000 years (www.co.san-bernardino.ca.us). Because of its inland location, the area was not explored by Europeans until late in the 18th century. When Spanish explorers and priests came, they found a diverse native population composed of at least seven tribes: the agricultural Yuman who had settled in small villages along the Colorado; and six desert tribes, including the Chemehuevi or Southern Paiutes, the Koso or Panamint, the Gabrieleños, Luiseños, Serranos, and the Cahuilla. At the time Europeans arrived, there were approximately 1,500 Indians living in the San Bernardino Valley (Schuiling 1984).

The first explorers to enter the area were Pedro Fages, the military commander of California in 1772, and Father Francisco Garcés, a missionary priest, in 1774 (www.co.san-bernardino.ca.us). The missionaries were from the San Gabriel Mission to the west, and the aim of having missionaries accompany explorers into the region was to search for a site for a new mission in order to extend influence into interior valleys. Father Garcés was the first White man to establish friendly relations with the Indians, which made later explorations of the area possible (Schuiling 1984). In 1834, after the secularization of the missions, the land was divided into a series of ranchos or land grants made to influential citizens by the Mexican government. The size of these land grants was limited to no more than 48,000 acres (Schuiling 1984). Indians provided the labor on these ranchos, raising

cattle and horses and cultivating crops. In 1848, when the southwest was ceded to the United States, most of the Mexican land grants became areas of public domain, and raising livestock gave way to agriculture.

Much has been written about the next phase of San Bernardino County history: the Mormon period. In 1851, Mormons settled in the San Bernardino Valley to start a new colony. When Brigham Young asked church followers to start a new colony in California, he expected a few to volunteer to go, but was quite dismayed when 437 volunteered (Beattie and Beattie 1951, Lyman 1996). The Mormons traveled from Salt Lake City to San Bernardino along a route that came to be known as "the Mormon Trail." The journey on the Mormon Trail was 400 miles, and crossed difficult desert and mountain terrain. The last leg of the trip required navigating the Cajon Pass in the San Bernardino Mountains before descending into the San Bernardino Valley. The Mormons had made plans to purchase the Chino Ranch from Isaac Williams. However, he had changed his mind about selling it when they arrived (Schuiling 1984, Lyman 1996). Because of the debt that the purchase of this land created and the need to demonstrate to church leaders in Salt Lake City that the colony was productive, the Mormons quickly developed crop cultivation and lumbering. Lumber was such an important cash commodity that it was called the "Mormon currency" (Schuiling 1984, p. 45). The Mormons also planted fruit trees and vineyards and built a flour mill. The Mormons were instrumental in establishing San Bernardino County in 1851 and the city of San Bernardino in 1854. However, when Brigham Young recalled the settlers to Salt Lake City in 1857,

Figure 41—San Bernardino County (shaded area) is north of Riverside County.

Source: 50 Individual States—Counties 1995

two-thirds of the original settlers left and the community began to develop in ways quite different from its original settlement. Beattie and Beattie (1951) detail some of the changes after the Mormon exodus, such as an increase in crime. Lyman (1996) notes that the peaceful coexistence of the Mormons with the surrounding Indian tribes changed after the Mormon exodus. One result was the displacement of the Cahuilla tribe.

In the late 1800s, the railroad came to San Bernardino County. Fierce competition between the Southern Pacific and Santa Fe lines led to price wars, which enabled many settlers from the Northeast and Midwest to be able to afford the long journey west. Southern Pacific had a monopoly in the county for a long time until Fred T. Perris surveyed the Cajon Pass, which allowed the Santa Fe Railway Company to link San Diego, San Bernardino, and Barstow by rail and thus, break the monopoly. Cheap railroad transportation led to a land boom in the 1880s and approximately 30 new communities were established. Only about half have survived to the present day (Schuiling 1984). The demand for land created a demand for water, so the Bear Valley dam was built in 1884, creating Big Bear Lake. In an attempt to replicate the success of the Bear Valley dam and develop a source of water for irrigation, Lake Arrowhead was created. In 1849, the Gold Rush was on and the discovery of gold in the San Bernardino Mountains brought an influx of miners to the area. Later, silver mining took precedence as gold was mined out, and then borate mining replaced silver mining. Mining continued as a strong part of the county's economic base into the 20th century (Schuiling 1984).

The last phase of San Bernardino County's history has been one of urbanization. Road construction opened up the mountains and deserts to recreation and tourism. Agriculture expanded in the county as it was pushed out of Los Angeles and Orange Counties. Dairies forced out of these areas moved to western San Bernardino County, making the Chino area "the largest concentrated dairy center in the nation" (Schuiling 1984, p. 101). World War II brought the beginning of a strong military presence in the county. As described in Schuiling (1984), before World War II there were no permanent military installations in the area with the exception of March Field in neighboring Riverside County. Military installations established in San Bernardino County include the Mojave Anti-Aircraft Range in northern San Bernardino County; Fort Irwin; the San Bernardino Air Depot of the Air Material Command, which became Norton Air Force Base in 1950; the Defense Supply Agency of the Department of Defense; 29 Palms Marine Base; George Air Force Base, which was a training facility for fighter pilots; and the navy bombing range at China Lake in the northwest part of the county, which expanded in 1943 and became the 750,000-acre Naval Ordnance Training Station that also lies partly in Kern and Inyo Counties.

World War II was also instrumental in bringing heavy industry to San Bernardino County (Schuiling 1984). Before World War II, Fontana had been an agricultural area, but with the establishment of the Kaiser Steel Mill on 1,800 acres in Fontana in 1942, the area transitioned to heavy industry. Other industries supporting steel production, such as steel fabricating and chemical plants, were added to the growing complex of heavy industry. Pollution damaged the citrus, as Fontana became a center of heavy industry. Iron ore for the steel mill came from Eagle Mountain mine in Riverside County, 160 miles away, and coal came from mines in Utah and Oklahoma. Kaiser Steel was one of the biggest employers in the county. In 1965, the plant employed 8,500 people. However, Schuiling (1984) states that foreign competition, high labor costs, outdated technology, and growing environmental concerns caused the plant closure in 1983. Other important industries in the county included the Santa Fe Railroad Company, numerous orange packing plants, and the Pacific Electric Heating Company known eventually as General Electric. Ontario was the "Flatiron Capital of the World" until 1981.

San Bernardino County Today

As the history indicates, western San Bernardino County is an area of industrial manufacturing. The county is very large and covers an area of 20,000 square miles

with a varied population distribution (Blair and others 1995). The majority of the population is located in the western part of the county, closest to Los Angeles, Orange, and Riverside Counties. In addition to the urbanized areas in the west, there are a number of other types of communities in the county, including resort communities in the mountains and parts of the desert, retirement communities, cities developed around military installations, farming communities, and mining communities (County of San Bernardino 1993).

Sociodemographic Characteristics

Projected Population—Three agencies are involved in growth forecasts for San Bernardino County: DOF, SCAG, and the San Bernardino Associated Governments (SANBAG). SANBAG is not in agreement with SCAG's projections for the region as a whole (Schuiling 1999a, 1999b) but has not published a separate set of projections. Comparison of the DOF and SCAG numbers shows that SCAG numbers are higher than DOF's. Despite the differences between the two sets of numbers, the overall picture is the same: explosive growth is predicted in the county through 2040. According to DOF, the county's population is expected to more than double between 1990 and 2040 *(table 30)*.

Table 30—*Population projections, San Bernardino County, 1990-2040.*

Source	1990	1994	2000	2005	2010	2015	2020	2030	2040
U.S. Census	1,418,380[1]	-	1,709,434	-	-	-	-	-	-
DOF	1,436,696[2]	-	1,727,452	-	2,187,807	-	2,747,213	3,425,554	4,202,152
SCAG[3]	-	1,558,600	1,772,700	2,005,400	2,239,600	2,512,800	2,829,800	-	-

Source: United States Census Bureau 1990a and 2000, State of California Department of Finance 1998, Southern California Association of Governments 1998

[1] Data from April 1.

[2] Data from July 1.

[3] Projections from SCAG are subject to change, based on the agency's final numbers, not yet available.

Ethnic and Racial Diversity—In 1990, San Bernardino County was predominantly White. By 2000, the percentage of Whites decreased substantially such that Whites and Hispanics formed the two largest ethnic/racial groups in the county *(table 31)*.

Table 31—*1990 and 2000 population, San Bernardino County.*

	1990	2000
	---------- Percent ----------	
Non-Hispanic White	60.8	43.9
Hispanic all races	26.7	39.2
Non-Hispanic Black	7.7	8.8
Non-Hispanic Asian	3.9	4.8
Non-Hispanic American Indian	0.7	0.6
Non-Hispanic other	0.2	0.2
Non-Hispanic two or more races	N/A	2.5

Source: United States Census Bureau 1990a, 2000

The population of Blacks in San Bernardino County was the second highest in the SCAG region. According to the 1990 U.S. Census, 7.7 percent of the population was Black in San Bernardino County, compared to 10.5 percent in Los Angeles County, 5.1 percent in Riverside County, 2.2 percent in Ventura County, 2.1 percent in Imperial County and 1.6 percent in Orange County. San Bernardino County also has a fairly young population. According to the 1990 census data, one-third of the county's population was 18 or younger (County of San Bernardino 1993). In 1990, 13.2 percent of San Bernardino's population was foreign-born.

Slightly more than 23 percent of residents age 5 and older spoke a language other than English at home. Of those, most (76.1 percent) spoke Spanish, and slightly less than one-fourth (23.9 percent) spoke a language other than English or Spanish (United States Census Bureau 1990b).

Linguistic diversity is also reflected within the schools in the region. The majority of LEP students in San Bernardino County public schools speak Spanish—mirroring the languages spoken at home—or a selection of other languages, such as Vietnamese and Khmer *(fig. 42)*. In 1997-98, 16.2 percent of San Bernardino County's public school students were LEP.

Projected Ethnic and Racial Diversity—Between 1990 and 2040 the county's majority is projected to shift from White to Hispanic *(fig. 43)*.

Whites are expected to have approximately a 35 percent decrease in their proportion of the population, and Hispanics approximately a 30 percent increase *(table 32)*. Hispanics will be the largest ethnic group in the Inland Empire by 2030 because of higher fertility rates and immigration (Petix 1999). Asians and Blacks are expected to increase only slightly as a proportion of the population, at 4.26 and 1.11 percent, respectively. American Indians are expected to slightly decrease as a percent of the overall population.

The changing ethnic and racial composition of the county is paired with changes in San Bernardino County population's age. Overall, median age projections remain stable at 29 years between 1990 and 2040, though interim years show fluctuation. However, Whites are projected for a dramatic increase in median age (from 32 to 43 years), as are American Indians (from 29 to 41 years) *(fig. 44)*. Asians and Blacks also have projected increases in median age across the forecast period (from 27.5 to 33.5, and 25 to 30, respectively). Hispanics are expected to move from an average of 23 to 24 years of age, which is a marginal increase. The 65-plus population in the Inland Empire is expected to grow significantly (Petix 1999).

Development and Real Estate

A drastic decline in residential construction occurred with the onset of the recession in the late 1980s *(fig. 45)*. Non-residential building in incorporated areas fell, but not as sharply. By 1998, construction in incorporated areas was on an upward trend. Building in unincorporated areas has not returned to pre-recession levels.

In 1990, San Bernardino County had 464,737 households and 542,332 housing units. The majority of those units were occupied (85.7 percent); few were vacant (14.3 percent, United States Census Bureau 1990a). However, parts of the county have experienced a number of challenges with regard to housing. The city of San Bernardino is one example. The city of San Bernardino is the oldest and largest city in the county. Home prices in the city of San Bernardino are among the lowest in California, making home ownership possible for many residents. However, San Bernardino has the lowest rate of home ownership of any major city in southern California (Lee 1999). The low rate of home ownership is due to a number of factors. These factors include its image as a crime-ridden place and the recession of the early 1990s, from which San Bernardino's recovery has been slow. San Bernardino was particularly affected by the recession because of the closure of three economic pillars in the community: Kaiser Steel, Norton Air Force Base, and the Santa Fe Railroad. The city has also been beset by unusually high crime, welfare, home foreclosures, and a high jobless rate (Lee 1999). According to economist John Husing (in Lee 1999), the city of San Bernardino has also experienced a subtle demographic shift in which broad sections of the middle class are retiring or dying. Properties are turned over to heirs as rentals or sold to investors who flocked inland in the expectation that prices would rise. The oversupply of rental housing and the number of foreclosures exacerbate the already downward trend. Of the occupied housing units, 63.3 percent were owner-occupied and 36.7 percent were renter-occupied (United States Census Bureau 1990a). The median value of owner-occupied housing units in 1990 was $129,200, and the median rent was $556 per month. The only housing within the SCAG region that is less expensive can be found in Imperial County.

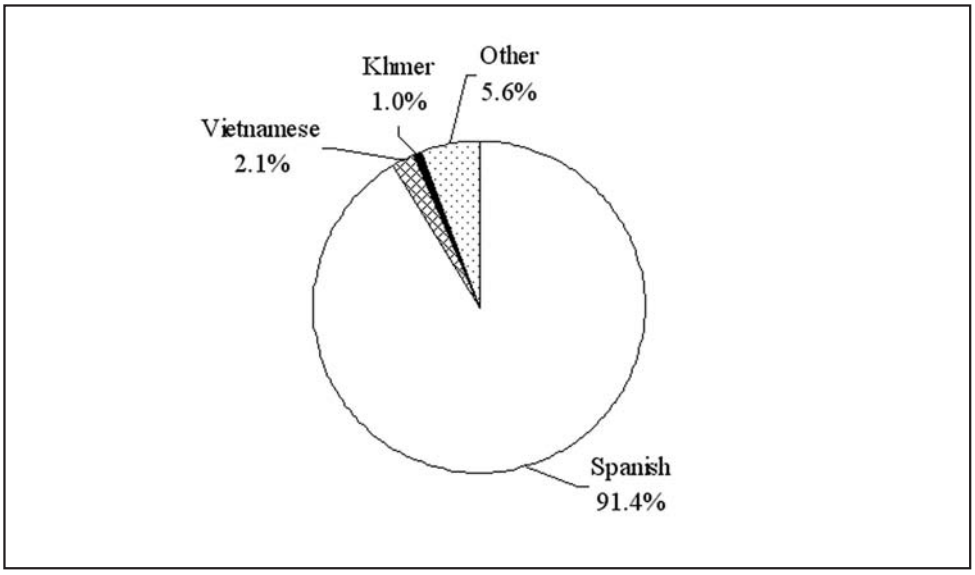


Figure 42—Limited-English-Proficient (LEP) students in San Bernardino County public school districts, by language, 1997-1998.

Source: California Department of Education 1998b

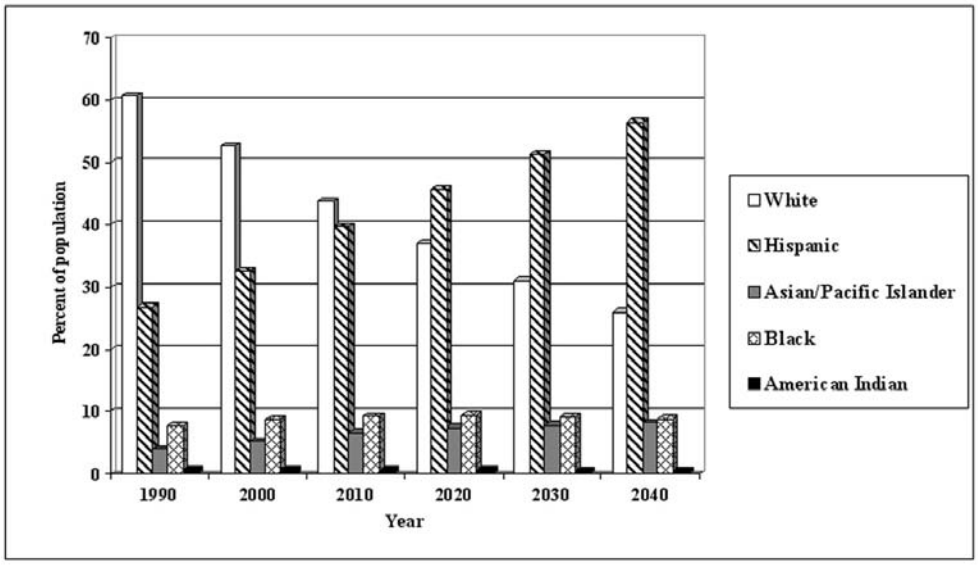


Figure 43—Racial and ethnic diversity trends for San Bernardino County.

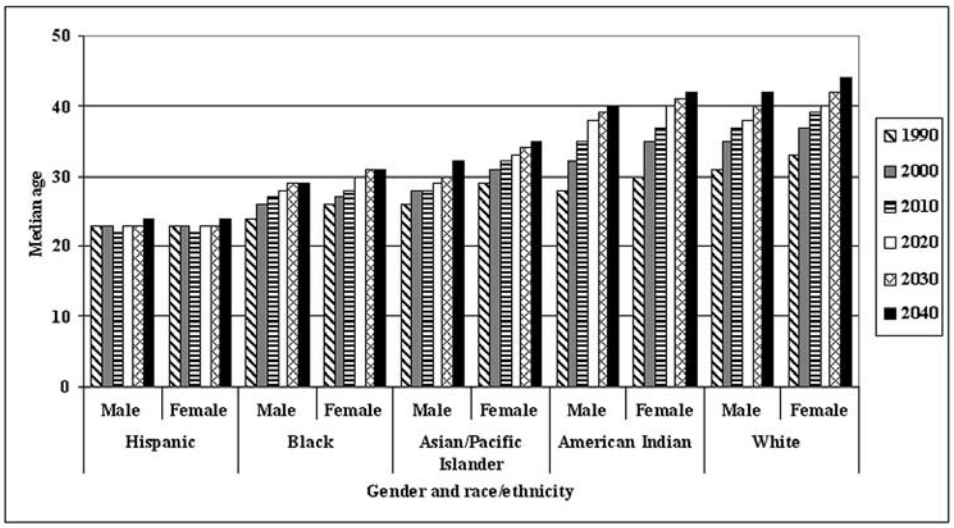
Source: State of California Department of Finance 1998

Table 32—*Percent race/ethnicity and percent change in San Bernardino County, 1990-2040.*

Racial/ethnic group	1990	2000	2010	2020	2030	2040	Cumulative percent change
	Year						
White	60.79 -	52.69 (-8.09)	43.78 (-8.92)	36.99 (-6.78)	31.08 (-5.91)	26.01 (-5.07)	-34.78
Hispanic	26.84 -	32.64 (5.80)	39.82 (7.19)	45.78 (5.96)	51.42 (5.64)	56.53 (5.10)	29.69
Asian/Pacific Islander	3.94 -	5.19 (1.25)	6.58 (1.38)	7.33 (0.76)	7.89 (0.56)	8.20 (0.30)	4.26
Black	7.73 -	8.82 (1.09)	9.22 (0.39)	9.34 (0.13)	9.12 (-0.22)	8.84 (-0.28)	1.11
American Indian	0.70 -	0.65 (-0.05)	0.61 (-0.05)	0.55 (-0.06)	0.48 (-0.06)	0.42 (-0.06)	-0.28

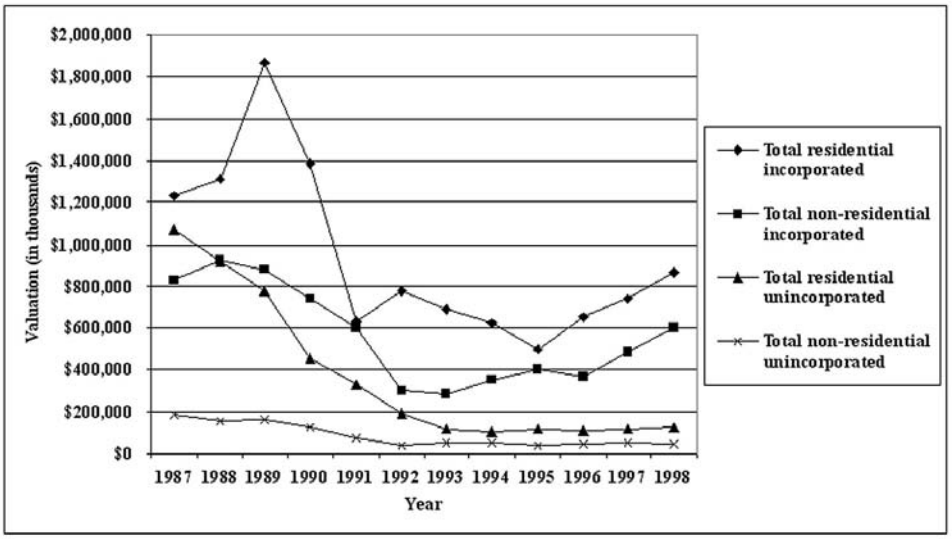
Source: State of California Department of Finance 1998

Figure 44—Median age by gender and race/ethnicity, San Bernardino County, 1990-2040.



Source: State of California Department of Finance 1998

Figure 45—Building trends, San Bernardino County, in 1998 dollars, 1987-1998.



Source: Construction Industry Research Board 1988-1999

Quality of Life Indicators

Transportation, Commuting, and Employment—In 1990, there were 597,330 workers age 16 and older in San Bernardino County, with an average of 1.9 vehicles per household. Of these workers, 32 percent worked outside the county. The majority (75.2 percent) of workers in San Bernardino County drove to work alone, though some carpooled (16.9 percent) *(fig. 46)*. Less than 1 percent used public transportation. The average travel time to work was 27.4 minutes, longer than the average (24.8 minutes) for workers in the SCAG region as a whole.

In 1997, the unemployment rate in San Bernardino County was 6.3 percent. Of those who are employed in both Riverside and San Bernardino Counties, 26.3 percent are in services, 25.9 percent in trade, and 20.5 percent in government (www.dof.ca.gov/html/fs_data/profiles/Sanbern.xls).

Base closures (Norton and George Air Force Bases) will affect future growth in the county. Norton Air Force Base closed in 1994; the redevelopment agencies

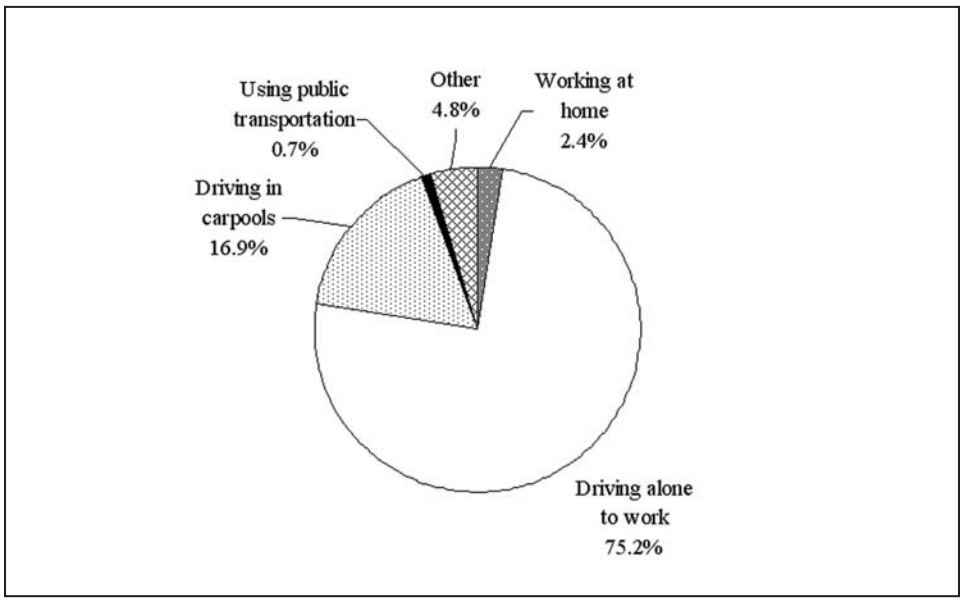


Figure 46—Commuting patterns, workers 16 and older, San Bernardino County, 1990.

Source: United States Census Bureau 1990b

are the San Bernardino International Airport Authority and the Inland Valley Development Agency (www.afbca.hq.af.mil/ols/norton.htm). The property includes a full-service airport, commercial and industrial properties, and an 18-hole golf course. There are also plans to lease 1 million square feet of building space in a new technology park. The San Manuel Band of Serrano Mission Indians is expected to acquire 100 acres of land at Norton (www.cedar.ca.gov/military/current_reuse/norton.htm). Key factors for a successful conversion of a base are a strong local economy, timing, location, a unified reuse agency, and the willingness of local developers to invest in a project (Churchill 1999). A quick transfer of property from the Federal government to the local community is essential. When Norton and George closed and March Air Force Base in Riverside County downsized, the economy was stagnating and willing investors were hard to find.

The land in farms in San Bernardino County decreased 28 percent from 1992 to 1997, but the market value of agricultural products sold increased to $617,833,000 from 1992 to 1997, an increase of 9 percent (United States Department of Agriculture 1997). The top five commodities sold are dairy products, poultry, cattle and calves, nursery crops and fruits and berries (United States Department of Agriculture 1997).

Education—San Bernardino County serves the largest number of students in its elementary schools and has more elementary schools (284) than middle and high schools (71 and 39, respectively) *(table 33)*. Average enrollment per school is greatest at the high school level, which is the pattern across the assessment area and all counties. San Bernardino County serves about 7 percent of the assessment area's school enrollments. County schools have the fourth highest enrollment overall (exceeded by Los Angeles, San Diego, and Orange Counties), and they are fourth in highest average enrollment per school. Students in 2nd through 11th grade were tested using the Stanford 9 at 382 of the county schools. San Bernardino's ranking in academic performance for 1999 was a mean of 4.71 out of 10 (based on the similarity index, www.cde.ca.gov), indicating lower-than-average performance than similar schools. Although 21.4 percent and 26.9 percent of schools in the county performed well below or below average compared to similar schools, 7.1 percent were well above average and 16.7 percent were above average.

Table 33—*Enrollment and number of schools, San Bernardino County, 1998-1999.*

Type of school	Total enrollment	Percent of total enrollment	Number of schools	Average enrollment/school
Elementary	191,543	55.0	284	674
Middle/Junior High	67,786	19.5	71	955
High School	88,888	25.5	39	2,279
Total	348,217	100.0	394	-

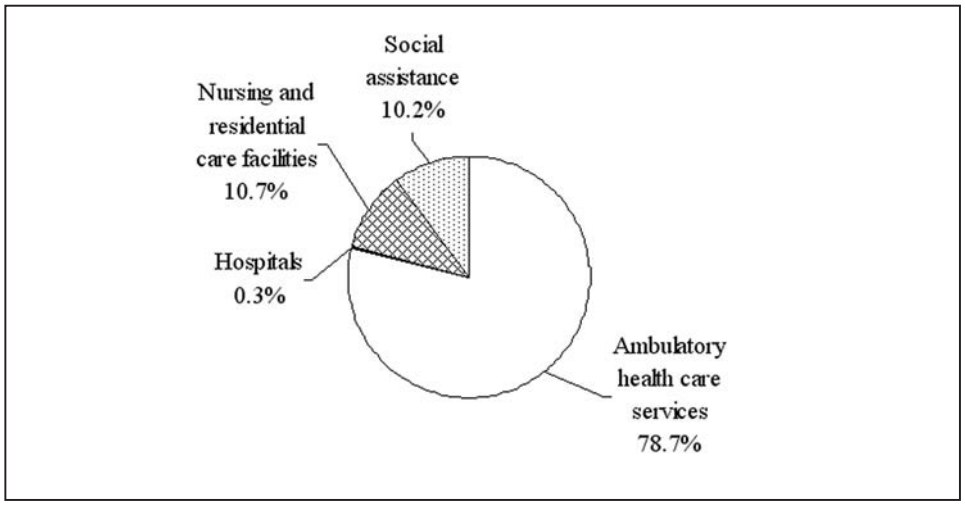
Source: California Department of Education 1998a

Health Care—The largest number of health care establishments in the county deliver ambulatory health care services, followed by nursing and residential care, social assistance, and hospital care *(fig. 47)*. The county has 25 hospitals, representing 6.3 percent of the assessment area's total hospitals (ahd.tool.net/list.php3/mstate=ca). The greatest percentage (36 percent) of the hospitals are nonprofit, and more than one-fourth are for-profit (28 percent). The remainder are classified as county (24 percent), and Federal (12 percent). For those hospitals with reported data (20 hospitals), a total of 3,876 beds and 826,015 total patient days were recorded in 1999. The county ranked fourth in number of hospitals, comparable to its fourth-place ranking in population.

Recreation and Tourism—Among the assessment area's 26 counties, San Bernardino ranked 7th in the 1997 economic census in accommodations and food services, and 11th in arts, entertainment, and recreation (United States Census Bureau 1999b, 1999c). A total of 2,323 accommodation and food-services establishments, with $1,279,705,000 in receipts, was reported. Arts, entertainment, and recreation services involved 200 establishments, with receipts totaling $454,665,000.

San Bernardino County offers several special sites for recreation and tourism, most notable among them contained within the San Bernardino National Forest, which offers wildland and wilderness opportunities. Because of its varied elevation, alpine activities are offered in the winter, while spring and summer bring hiking, mountain biking, and water skiing (www.wildernet.com). Outside of the National Forest are a number of regional parks such as Yucaipa and Mojave Narrows. Joshua Tree National Park is among the many recreational and tourist interests, known for its climatic extremes and its contrasting high and low desert ecosystems (www.desertgold.com/park). International visitors are drawn to the park year-round for its many sightseeing opportunities, and rock climbers to its world-renowned rock formations.

Figure 47—Health care and social assistance establishments, San Bernardino County, 1997.



Source: United States Census Bureau 1999a

Environmental Indicators

Water Quality—San Bernardino County crosses 17 watersheds: the Havasu-Mojave Lakes, which spans Arizona, California, and Nevada; Piute Wash, which spans California and Nevada; Sacramento Wash, which spans Arizona and California; the Imperial Reservoir, which spans Arizona and California and includes the cities of Vidal, Earp, Parker, Blythe, Ehrenberg, and Palo Verde; Bill Williams; Ivanpah-Pahrump Valleys, which span California and Nevada; San Gabriel, which includes the cities of Duarte south to Seal Beach; Santa Ana, which includes the cities of Anaheim east to Riverside; Upper Amargosa, which spans Nevada and California; Death Valley-Lower Amargosa, which includes Death Valley; Panamint Valley, which includes the city of Darwin; Indian Wells-Searles Valleys, which includes Ridgecrest; Antelope-Fremont Valleys, which includes Lancaster and Palmdale; Coyote-Cuddeback Lakes, which includes Hinkley; Mojave, which includes Barstow, Victorville, Apple Valley and Hesperia; Southern Mojave, which includes Twentynine Palms; and Salton Sea, which includes the cities of Banning south to Calexico (www.epa.gov/surf3/surf98/county.html). (Watersheds frequently cross county boundaries. Therefore, some counties may include watersheds that are also located in other counties.) Imperial Reservoir, Bill Williams, Death Valley-Lower Amargosa, and the Salton Sea were assigned a "5" by the EPA, indicating "more serious water quality problems but low vulnerability to pollution stressors." (According to the EPA's Index of Watershed Indicators procedures, a pollution stressor includes aquatic/wetland species at risk, toxic loads above limits, urban runoff potential, agricultural runoff potential, population change, hydrologic modification, estuarine pollution susceptibility, and atmospheric deposition.) San Gabriel, Santa Ana, Antelope-Fremont Valleys, Mojave, and Southern Mojave watersheds were assigned a "3," indicating "less serious water quality problems and low vulnerability to pollution stressors." Havasu-Mojave Lakes was assigned a "1," indicating "better water quality and low vulnerability to pollution stressors." Data are not available for Piute Wash, Sacramento Wash, Ivanpah-Pahrump Valleys, Upper Amargosa, Panamint Valley, Indian Wells-Searles Valleys, and Coyote-Cuddeback Lakes watersheds.

Air Quality—San Bernardino County has the fifth largest population of the 26 counties, paired with the seventh highest emissions in various categories *(table 34)***.** The majority of emissions are projected for marginal decreases dependent upon emission type. Particulates are expected to increase, primarily from area-wide sources, according to the California Air Resources Board (1999). New Federal air-quality standards passed in 1997 have impacted the Inland Empire, and this regulatory change is not reflected in the California Air Resources Board data. As a result of the 1997 regulations, particulates should be decreasing in the future, not increasing (Schuiling 2000).

Implications

As described in the General Plan (County of San Bernardino 1993), the county's population has grown continually since 1970, with an annual growth rate between 5 and 6 percent during the 1980s and 1990s. Most of the population increase has occurred in areas adjacent to Los Angeles and Orange Counties or within commuting distance of their employment centers. Building activity in the early 1990s is such that the North Desert and West Valley areas are the regions experiencing the most growth.

Building trends indicate that San Bernardino County has had development activity, but the average valuation is lower than surrounding counties. At the peak of residential construction in 1989, building valuation was slightly more than $1.8 million. In Riverside County at the same time, residential building valuation was almost $2.5 million, and in Orange County it was slightly more than $2 million. Recovery from the recession in the early 1990s has been slower in San Bernardino County (Utley 1999).

Table 34—*1996 estimated and 2010 forecasted annual average emissions, San Bernardino County (cells do not add to column totals due to rounding error).*

Year	Emission category	Emission type[1]						
		TOG	ROG	CO	NOx	SOx	PM	PM10
1996	Stationary	76	30	22	94	9	29	21
	Area-Wide	140	36	94	4	0	230	130
	Mobile	100	94	750	190	7	10	9
	Natural	2	1	22	0	-	3	3
	Total	320	160	890	290	15	270	160
2010	Stationary	110	39	27	110	11	36	25
	Area-Wide	160	45	110	6	0	330	180
	Mobile	65	61	560	150	8	9	8
	Natural	2	1	22	0	-	4	3
	Total	340	150	720	270	19	380	220

Source: California Air Resources Board 1999

[1] TOG: total organic gases; ROG: reactive organic gases; CO: carbon monoxide; NOx: nitrogen oxides; SOx: sulfur oxides; PM: particulate matter; PM10: particulate matter less than or equal to 10 microns (*appendix D*).

Results from the 1999/2000 Inland Empire Annual Survey indicate that the high crime and smog are considered the worst aspects of the county, while climate, location, general living atmosphere, and the low cost of living are the best attributes of the county (Bockman and others 2000). The county of San Bernardino faces a number of challenges. These challenges include attracting industry to the area to replace the loss of major employers like Kaiser, the conversion of Norton and George Air Force Bases to successful commercial uses, and building enough housing to accommodate the projected population. The county's 1993 general plan indicates that additional housing will be needed to accommodate not only the continuing influx of residents but also to meet the needs of existing residents. Natural resources related challenges for this county are related to the dramatic population growth, commute times for workers longer than the regional average, thereby affecting air quality, and the documented loss of farmland. Maintaining the natural resources in the face of growth will be an issue, though the geographic size of this county is helpful in that regard. The county's success in meeting these challenges will influence the future direction of growth and development in the county.

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Ventura County

- The county has two main exports: oil and agricultural products.
- There is a long history of American Indian, Asian, and Latino settlement in the county.
- There is an east versus west geographical and political division in the county.

History

According to W.W. Robinson's (1956) history of Ventura County, Europeans first visited the Ventura area in 1542, under the command of Juan Rodriguez Cabrillo *(fig. 48)*. Upon landing near the present day Point Magu, the visitors encountered the Chumash Indians. The villages of Chumash fishermen extended from Point Magu to what is currently Santa Barbara County. The valleys of the Ventura and Santa Clara Rivers and the broad Oxnard Plain provided a flat, fertile ground for early settlements. Abundant fish, moderate climate, and adequate fresh water supply attracted the Chumash, who established a permanent village site in the area now covered by the city of Ventura (Paulsen and others 1996). The Chumash's prosperity in the area led Spanish missionaries to choose a site just below the mouth of the Ventura River to establish the Mission San Buenaventura. The mission was planned as an "intermediate mission" between San Diego and Carmel. It became the dominating feature of the region and the town that grew up around it. The mission was a viable agricultural operation throughout its first 50 years, but by the time California became a Mexican territory in 1822, the mission began to decline. By this time, disease and the disruption of the Chumash traditional ways of life were affecting the operation of the mission, which was dependent upon their labor.

Settlement has always been concentrated in the southern half of the county where the Mexican Congress' Secularization Act of 1833 granted large tracts of mission land to Mexican citizens (Paulsen and others 1996). (California was a Mexican territory until 1848.) Even the lands closest to the mission were privatized as the dwindling native population weakened the missionaries' argument that these lands be maintained in trust for the Chumash. A large amount of acreage was made available for purchase. As an example, 20 tracts granted between 1833 and 1846 averaged 25,000 acres each. These ranchos remained largely intact when the first Anglo settlers arrived in the mid-19th century. Mexican ranchers raised cattle, and they were often vulnerable to droughts to raise feed for their stocks.

Things were more complicated for the ranchers in 1848 when California became an American territory. United States law required proof of title to establish land ownership, and the often imprecise Mexican descriptions of boundaries opened their holdings to land disputes (Blakley and Barnette 1985). Confirmation of legal title required legal assistance, which further strained the ranchers' precarious financial situation. The bias of American land agents toward White settlers exacerbated the Mexicans' tentative hold on their ranchos. Through claims

Figure 48—Ventura County (shaded area) is north of Los Angeles.

Source: 50 Individual States—Counties 1995

of ownership or sale, Anglo settlers were eventually able to purchase most of contemporary Ventura County in large tracts. With a change in landownership came a change in status for the Mexicans in Ventura County. Whereas the Mexican landholders of the rancho era had been wealthy and self-sufficient, their descendants, without land and wealth, became dependent on Anglo landowners for jobs. By the turn of the century, Mexicans had become the principal source of farm labor in Ventura County.

At the turn of the century, the county's population was predominantly Hispanic. Chinese and Japanese immigrants also settled in the region from the 1850s through the early 1900s. The Chinese and Japanese were brought to the United States by labor contractors to work in mines, railroads, and a sugar-beet processing plant. Although many immigrants planned to save their earnings and return to Asia, by 1900 relatively permanent Japanese and Chinese settlements had developed in Ventura and Oxnard.

With the discovery of oil in the 1850s, the first rush of White settlers occurred as farmers and oil speculators emigrated from the eastern U.S. Ranchers and farmers frequently had oil wells on their property in areas too steep for cultivation.

Oil, thus, was compatible with agriculture, the other major contributor to Ventura County's economy through World War II. The oil industry was the county's single largest taxpayer and largest employer through the 1950s (Paulsen and others 1996). By 1887, the Southern Pacific Railroad came to the county, and the first real estate boom began.

During World War II, Ventura County experienced a second economic boom based on the defense and aerospace industries. The construction of two naval bases, Port Hueneme and Point Magu, attracted new populations. The construction of U.S. 101, the main freeway connecting Los Angeles to Ventura and Santa Barbara Counties, ended Ventura County's isolation. The freeway opened agricultural east county to suburban development, separated the city of Ventura from its beach front, and led to the development of the north county's coastal areas.

In the 1960s new residents migrated to Ventura County in increasing numbers as the county became a suburb of Los Angeles and as military employment flourished. The new residents, less familiar with the history of oil in Ventura County, viewed oil operations as a threat to their suburban way of life (Paulsen and others 1996).

The period after World War II was a time of unprecedented growth in California, and Ventura County was no exception to this trend. While California's population increased 188 percent from 1940 to 1970, Ventura County's population increased by 440 percent. The economy also began a transformation, becoming stronger in professional and clerical positions. Agricultural employment fell from 28.6 percent in 1940 to 12.9 percent in 1960, to only 5.1 percent in 1970. The economic shift in the county was accompanied by a shift in patterns of settlement. Although the cities of Ventura and Oxnard dominated the county through the 1950s, settlement began to spill over into the Camarillo area. With the completion of new freeways to the San Fernando Valley, settlements in east Ventura County flourished in the 1960s. Communities like Simi Valley and Thousand Oaks became major residential cities, and residents of these cities were largely dependent on aerospace and defense jobs in Los Angeles and the San Fernando Valley.

Ventura County Today

The northern and western portions of the county developed first and are separated from the newer settlements in the east by rugged mountains. Simi and Conejo Valleys make up the "east county," a region proximate to Los Angeles and the San Fernando Valley whose development has occurred post-1960. The east county is essentially a bedroom community to Los Angeles and the residents of east county communities are the most affluent and highly educated in the county. The Conejo Grade separates the county geographically between east and west, but also symbolizes a political demarcation: an orientation toward Ventura and the coast or toward Los Angeles and the San Fernando Valley (Paulsen and others 1996). The northern portion of the county is more rugged and much of it is included in the Los Padres National Forest.

Sociodemographic Characteristics

Projected Population—Three agencies publish population projections for Ventura County: DOF, SCAG, and the Ventura Council of Governments (VCOG). VCOG is the sub-regional agency that represents the cities. The DOF projections are the highest because they do not take local land-use assumptions into account; thus, DOF numbers do not reflect build-out, base closings, or any other land-use decisions that might restrict population growth in the county. SCAG numbers appear to be the most conservative for the county, except for the years 2015 and 2020. VCOG's numbers are in the middle range between DOF and SCAG, except for 2015 and 2020 where VCOG's projections are the lowest of the three *(table 35)*. These differences aside, all three sources show an increasing population in the county over the forecast period, to almost a doubling between 1990 and 2040.

Table 35—*Population projections, Ventura County, 1990-2040.*

Source	1990	1994	2000	2005	2010	2015	2020	2030	2040
U.S. Census	669,016[1]	-	753,197	-	-	-	-	-	-
DOF	670,274[2]	-	753,820	-	854,580	-	981,565	1,127,592	1,278,426
SCAG[3]	-	-	736,645	754,530	810,728	864,761	932,322	-	-
VCOG	-	-	740,876	773,218	822,601	868,212	914,252	-	-

Source: United States Census Bureau 1990a and 2000, State of California Department of Finance 1998, Southern California Association of Governments 1998, Ventura Council of Governments 2000

[1] Data from April 1.

[2] Data from July 1.

[3] Projections from SCAG are subject to change, based on the agency's final numbers, not yet available.

The cities generally were in greater alignment with VCOG numbers than SCAG's. "Ideally, VCOG and SCAG numbers should match" (Coddell 1999). VCOG published their projections in April 1998, SCAG published their projections in December 1998, and then VCOG published a revised set of numbers in September 2000 *(table 36)*. In most cities, the revised set of numbers more closely resembles SCAG's numbers than the first set VCOG reported. The city of Port Hueneme is currently in an ADR phase over both SCAG and VCOG numbers because each set of projections is too high. The lack of vacant land in the city has made the population forecasts by both SCAG and VCOG unrealistically high (Brown 2000).

Table 36—*Projections from VCOG and SCAG by city in Ventura County, 1990-2020.*

City	1997	2000	2005	2010	2015	2020
	Year					
Camarillo		61,501[1]	64,210	66,810	69,235	71,838
	58,848	**60,217**[2]	**61,381**	**65,041**	**68,559**	**72,958**
		60,217[3]	*61,381*	*65,041*	*68,559*	*72,958*
Fillmore		13,748	14,852	16,030	17,224	18,367
	13,072	**13,692**	**14,865**	**18,550**	**22,093**	**26,524**
		13,602	*14,921*	*16,030*	*17,224*	*18,367*
Moorpark		31,045	37,066	43,091	49,112	50,947
	28,936	**29,658**	**30,662**	**34,645**	**38,282**	**42,830**
		29,617	*32,015*	*36,429*	*40,930*	*40,930*
Ojai		7,980	8,078	8,170	8,363	8,592
	8,098	**8,175**	**8,251**	**8,490**	**8,719**	**9,006**
		8,175	*8,251*	*8,490*	*8,719*	*9,006*
Oxnard		152,062	160,850	169,523	178,082	187,087
	153,724	**156,523**	**159,301**	**168,025**	**176,413**	**186,901**
		156,523	*159,301*	*168,025*	*176,413*	*186,901*
Port Hueneme		25,289	26,922	28,381	30,810	33,350
	22,623	**23,290**	**24,460**	**28,128**	**31,656**	**36,068**
		23,290	*24,460*	*28,128*	*31,656*	*36,068*
San Buenaventura		99,415	103,426	107,437	111,449	115,460
	100,043	**102,982**	**106,214**	**116,373**	**126,139**	**138,352**
		103,397	*108,397*	*113,397*	*118,397*	*123,397*
Santa Paula		30,806	32,884	34,437	36,231	38,016
	26,500	**27,376**	**28,377**	**31,522**	**34,547**	**38,328**
		24,540	*30,135*	*32,730*	*35,325*	*37,920*
Simi Valley		118,722	126,582	131,205	135,828	140,452
	104,293	**106,815**	**109,570**	**118,228**	**126,554**	**136,961**
		106,815	*109,570*	*118,228*	*126,554*	*136,961*
Thousand Oaks		117,876	124,105	129,860	132,953	132,953
	113,460	**115,315**	**116,547**	**120,423**	**124,150**	**128,809**
		118,000	*123,515*	*129,000*	*130,314*	*131,600*

Continued on next page

Unincorporated		97,745	103,447	109,040	114,998	118,501
	91,216	**92,602**	**94,702**	**101,303**	**107,649**	**115,585**
		96,700	*101,272*	*107,103*	*114,121*	*120,144*
Total		756,189	802,422	843,984	884,285	915,563
	720,613	**736,645**	**754,530**	**810,728**	**864,761**	**932,322**
		740,876	*773,218*	*822,601*	*868,212*	*914,252*

[1]Ventura Council of Governments 1998.

[2]Southern California Association of Governments 1998.

[3]Ventura Council of Governments 2000.

Ethnic and Racial Diversity—The racial/ethnic composition of Ventura County grew more diverse between 1990 and 2000 *(table 37)*.

Table 37—*1990 and 2000 population, Ventura County.*

	1990	2000
	---------- Percent ----------	
Non-Hispanic White	65.9	56.8
Hispanic all races	26.4	33.4
Non-Hispanic Black	2.2	1.8
Non-Hispanic Asian	4.9	5.4
Non-Hispanic American Indian	0.5	0.4
Non-Hispanic other	0.1	0.1
Non-Hispanic two or more races	N/A	2.0

Source: United States Census Bureau 1990a, 2000

Almost two-thirds of the population was White, and slightly more than a quarter of the county's population was Hispanic. Asians, Blacks, and American Indians represented less than 10 percent of the total population. In that same year, Ventura County had a foreign-born population of 17 percent.

Twenty-six percent of residents 5 years of age and older spoke a language other than English at home. Of those, the majority (76.4 percent) spoke Spanish and approximately one-fourth (23.6 percent) spoke a language other than English or Spanish (United States Census Bureau 1990b).

Linguistic diversity is also reflected within the schools in the region. The majority of LEP students in Ventura County public schools speak Spanish—mirroring the languages spoken at home—or a selection of other languages, such as Pilipino (*fig. 49*). In 1997-98, 20.6 percent of Ventura County's public school students were LEP.

Projected Ethnic and Racial Diversity—In addition to the overall projected increase in county population, there are two trends in Ventura County projected through 2040: a decline in Whites as a proportion of the total population, and an increase in Hispanics as a proportion of the total population (*fig. 50*). The Asian population is also projected to increase as a proportion of the total population, while Blacks and American Indians are expected to remain a small percentage of the county population.

Whites are expected to decline most markedly as a proportion of the population, while American Indians show a marginal decline as a proportion of the population (*table 38*). The two fastest growing groups in the county are expected to be Hispanics and Asians.

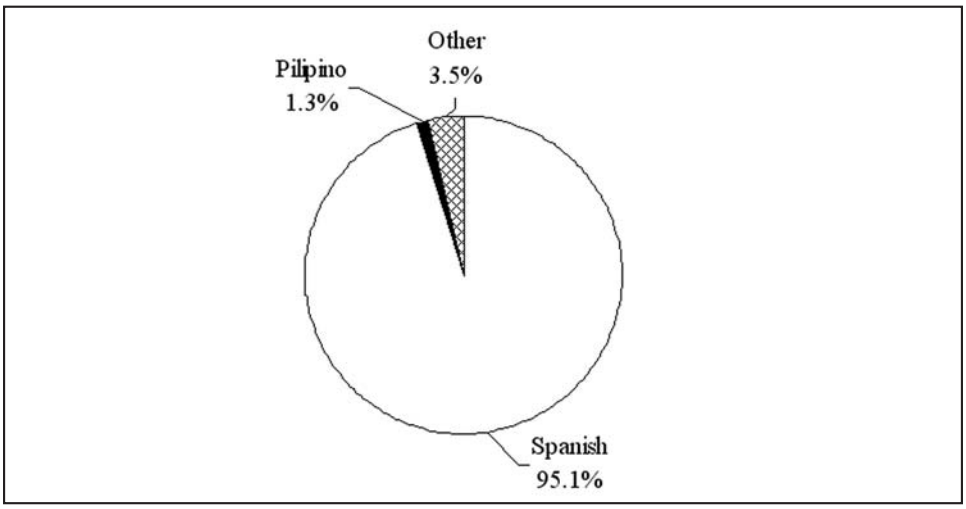


Figure 49—Limited-English-Proficient (LEP) students in Ventura County public school districts, by language, 1997-1998.

Source: California Department of Education 1998b

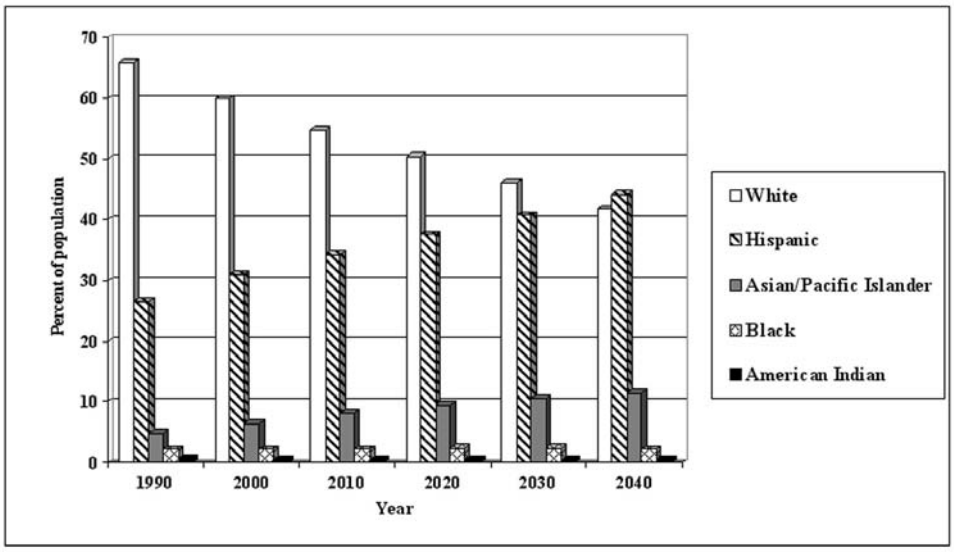


Figure 50—Racial and ethnic diversity trends for Ventura County.

Source: California Department of Finance 1998

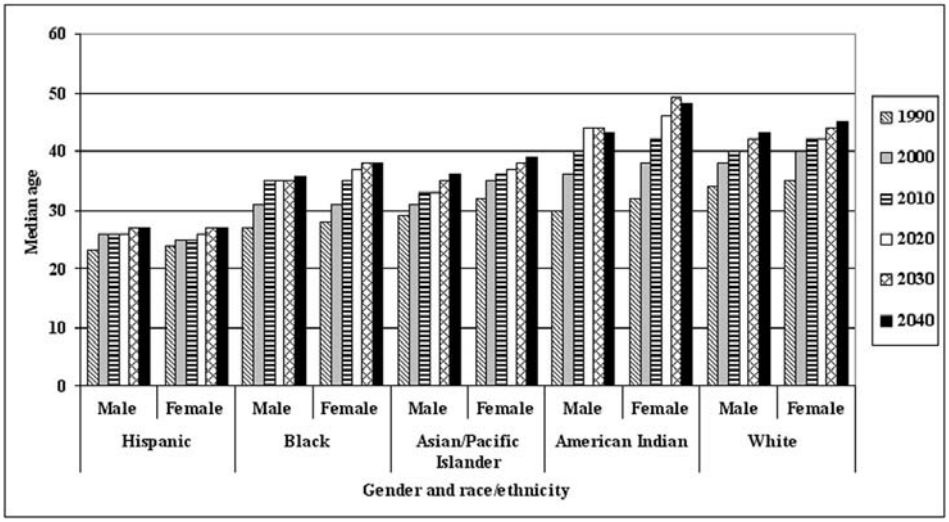
Table 38—*Percent race/ethnicity and percent change in Ventura County, 1990-2040.*

Racial/ethnic group	1990	2000	2010	2020	2030	2040	Cumulative percent change
	---------- Year ----------						
White	65.84 -	59.98 (-5.86)	54.82 (-5.16)	50.48 (-4.34)	46.06 (-4.42)	41.83 (-4.23)	-24.01
Hispanic	26.56 -	30.91 (4.36)	34.40 (3.48)	37.48 (3.08)	40.82 (3.34)	44.20 (3.38)	17.65
Asian/Pacific Islander	4.91 -	6.41 (1.49)	8.10 (1.70)	9.35 (1.25)	10.49 (1.14)	11.40 (0.91)	6.49
Black	2.18 -	2.22 (0.04)	2.23 (0.01)	2.29 (0.06)	2.28 (-0.01)	2.26 (-0.02)	0.08
American Indian	0.51 -	0.48 (-0.03)	0.45 (-0.03)	0.41 (-0.05)	0.35 (-0.05)	0.30 (-0.05)	-0.21

Source: State of California Department of Finance 1998

Paired with the increasing ethnic and racial diversity are projected changes in the area population's median age. Overall, the county population is expected to increase in median age from 31 to 35 years. Projected median age varies by race/ethnicity and gender. Females have higher median ages across the forecast period. American Indians show the highest median age in Ventura County, increasing from 31 to 45.5, followed by Whites (increasing from 34.5 to 44). Median age projections for Asians and Blacks are similar (increasing from 30.5 to 37.5 and 27.5 to 36.8, respectively), while Hispanics have the youngest age structure (from 23.5 to 27) (*fig. 51*).

Figure 51—Median age by gender and race/ethnicity, Ventura County, 1990-2040.



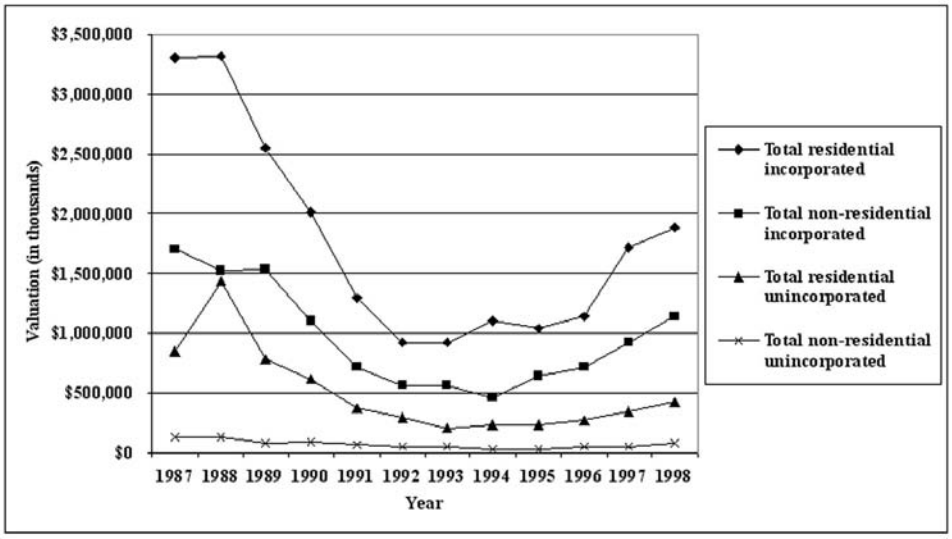
Source: State of California Department of Finance 1998

Development and Real Estate

The majority of construction in Ventura County from 1987 to 1998 was residential development in incorporated areas *(fig. 52)*. Non-residential building in incorporated areas was the next highest proportion. Trends suggest that building was on the rise, except for non-residential development in unincorporated areas, which was a small and stable proportion of building in the county.

In 1990, Ventura County had 217,298 households and 228,478 housing units. The vast majority (95.1 percent) of housing units were occupied, and 4.9 percent were vacant (United States Census Bureau 1990a). This occupancy rate is the

Figure 52—Building trends, Ventura County, in 1998 dollars, 1987-1998.



Source: Construction Industry Research Board 1988-1999

highest in the SCAG region, indicating a housing shortage in the county. Of the occupied housing units, approximately two-thirds (65.5 percent) were owner-occupied and slightly more than one-third (34.5 percent) were renter-occupied (United States Census Bureau 1990a). The median value of owner-occupied housing units in 1990 was $245,300, and the median rent was $754 per month.

Quality of Life Indicators

Transportation, Commuting, and Employment—In 1990, there were 335,186 workers age 16 and older in Ventura County, and an average of two vehicles per household. More than one-fourth of the residents (25.3 percent) worked outside the county. The majority (76 percent) of workers in Ventura County drove to work alone, although some carpooled (15.6 percent) *(fig. 53)*. Less than 1 percent used public transportation, similar to other counties in the SCAG region. The average travel time to work was 24.7 minutes, which was average for the region.

Ventura County provides an example of racial stratification by occupation. Hispanics, the largest ethnic group in the county, mostly live in working-class towns, and many hold jobs in low-wage industries (Paulsen and others 1996). In cities dependent upon agriculture, there are large Hispanic populations. Hispanics make up at least half the populations of Oxnard, El Rio, Fillmore, Piru, and Santa Paula. In the east county and city of Ventura, areas economically dominated by professionals, there is a more ethnically homogeneous population, typically 70 to 80 percent Anglo (Paulsen and others 1996). Although there are instances where people of color have achieved leadership positions such as in Oxnard where Japanese Americans and Mexican Americans have held the mayor's office for decades, the county as a whole remains racially and economically stratified (Paulsen and others 1996).

Along with oil production, the economy has continued to diversify to include tourism, manufacturing, and high-technology research. By 1970, tourism was more important than the extractive industries (mining and petroleum), a reversal from their status in 1940. The economy increased in the number of professional occupations but is still strong in agricultural jobs. Although the percentage of Ventura County residents employed in agriculture fell by over half from 1960 to 1970, agriculture nevertheless plays a greater role in Ventura County than it does statewide. The number employed in agriculture in Ventura County has remained relatively stable at 5 percent through the 1970s, 1980s, and 1990s. In 1990,

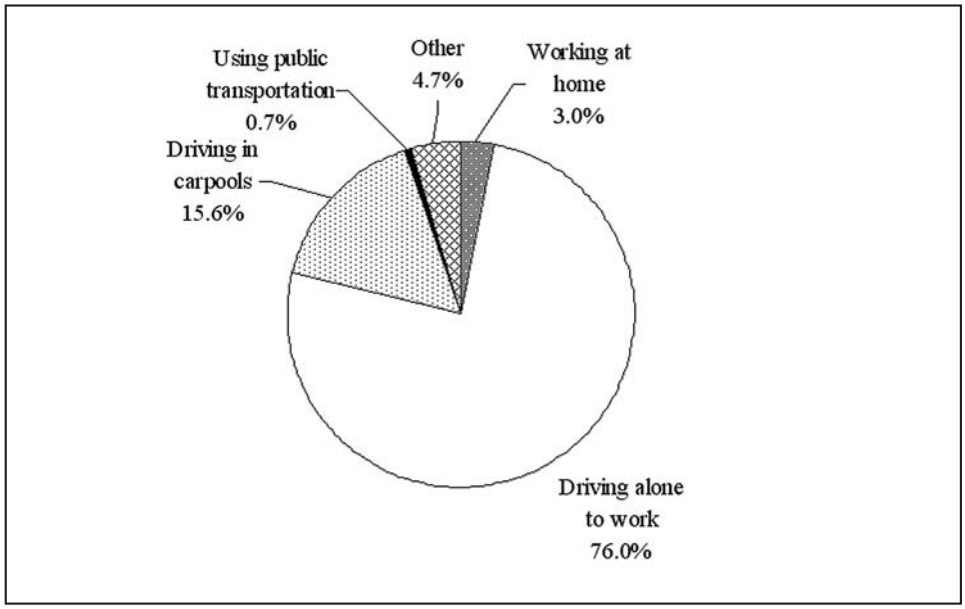


Figure 53—Commuting patterns, workers 16 and older, Ventura County, 1990.

Source: United States Census Bureau 1990b

agricultural employment was 2.7 percent statewide (Paulsen and others 1996). The market value of agricultural products sold increased to $845,613,000 from 1992 to 1997, an increase of 27 percent. The land in farms in the county increased 8 percent from 1992 to 1997 (United States Department of Agriculture 1997).

The service and retail industries have grown. Although many Ventura County residents work in the professions, many of these jobs lie outside the county's borders. Jobs created inside the county appear to be in the sectors that support the expanding bedroom communities of the east county. In an increasingly common tale of competition for sales tax in the post-Proposition 13 era, Ventura, Oxnard, and Camarillo are engaged in battles to attract retail outlets to their respective cities, primarily factory outlets, big-box retail such as WalMart, and auto dealerships. The area along Highway 101 that spans the three cities has been named "Sales Tax Canyon" (Fulton 1997) because of the preponderance of such retail outlets. The competition for retail is not unique to Ventura, but a common occurrence throughout California as cities struggle to find sources of sales tax revenue. The Oxnard Plain, once devoted exclusively to crops, increasingly is being developed for residential and commercial use. The disappearance of farmland is not unique to Oxnard. In fact, during the 1980s, the county lost 800 to 1,000 acres of agricultural land each year to residential and commercial development (Paulsen and others 1996).

Haphazard development and a lack of coherent zoning persisted in parts of the county through the 1960s. In 1967, the County Board of Supervisors embarked on a General Plan that covered the city and the county of Ventura. The intermingling of incompatible land uses was the impetus for developing a General Plan. Today, the coastal cities of Ventura and Oxnard are faced with the mixed use of coastal property, which hinders the development of the tourist industry and obstructs the full potential of the waterfront.

Education—Ventura County serves the largest number of students in its elementary schools and has more elementary schools (125) than middle and high schools (27 and 18, respectively) *(table 39)***.** Average enrollment per school is greatest at the high school level, which is the pattern across the assessment area and all counties. Ventura County serves 2.6 percent of the assessment area's school enrollments. County schools have the 12th highest enrollment overall, yet they are 7th in highest average enrollment per school. Students in 2nd through 11th grade were tested using the Stanford 9 at 165 of the county schools. Ventura County's ranking in academic performance for 1999 was a mean of 5.55 out of 10 (based on the similarity index, www.cde.ca.gov), indicating average performance compared to similar schools. Although 15.2 percent and 20 percent of schools in the county performed well below or below average compared to similar schools, 14 percent were well above average and 24.9 percent were above average.

Table 39—*Enrollment and number of schools, Ventura County, 1998-1999.*

Type of school	Total enrollment	Percent of total enrollment	Number of schools	Average enrollment/ school
Elementary	70,258	53.9	125	562
Middle/Junior High	24,216	18.6	27	897
High School	35,953	27.6	18	1,997
Total	130,427	100.0	170	-

Source: California Department of Education 1998a

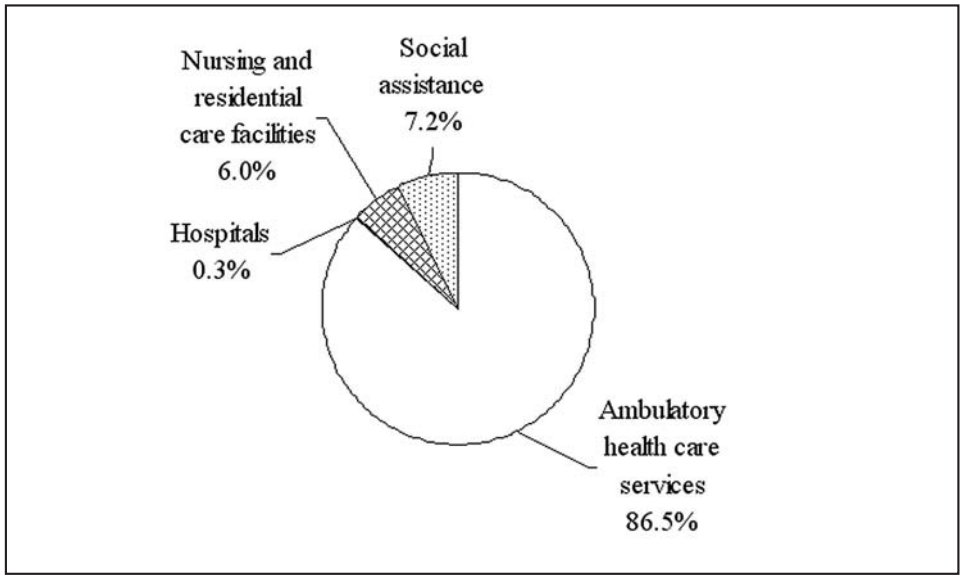


Figure 54—Health care and social assistance establishments, Ventura County, 1997.

Source: United States Census Bureau 1999a

Health Care—The largest number of health care establishments in the county deliver ambulatory health care services, followed by social assistance, nursing and residential care, and hospital care *(fig. 54)*. The county has 10 hospitals, representing 2.5 percent of the assessment area's total hospitals (ahd.tool.net/list.php3/mstate=ca). Half (50 percent) of the hospitals are nonprofit, and 40 percent are for-profit. The remaining hospital is a county facility (10 percent). For those hospitals with reported data (nine hospitals), a total of 1,687 beds and 2,645,781 total patient days were recorded in 1999. In 1999, the county ranked 12th in number of hospitals, comparable to its 12th place ranking in population in the 2000 census.

Recreation and Tourism—Among the assessment area's 26 counties, Ventura ranked 13th in the 1997 economic census in accommodations and food services, and 9th in arts, entertainment, and recreation (United States Census Bureau 1999b, 1999c). A total of 1,200 accommodation and food-services establishments, with $775,318,000 in receipts, was reported. Arts, entertainment, and recreation services involved 214 establishments, with receipts totaling $149,282,000.

Ventura County offers several special sites for recreation and tourism. The Channel Islands National Park offers a visitor center on the mainland, as well as island-based recreation by air or boat (www.channel.islands.national-park.com). The closest National Forest to the county is the Los Padres, known for its recreational opportunities as well as the 53,000-acre Sespe Condor Sanctuary (www.fillmoreca.com). Lake Piru and Lake Casitas are nearby, offering a multitude of recreational opportunities.

Environmental Indicators

Water Quality—Ventura County crosses 11 watersheds: the Middle Kern-Upper Tehachapi-Grapevine, which includes cities from Caliente south to Frazier Park; the Cuyama, which includes New Cuyama and Cuyama; the Santa Ynez, which includes Lompoc; the Santa Barbara Coastal, which includes Santa Barbara; the Santa Barbara Channel Islands; Ventura; Santa Clara, which includes Fillmore and Santa Clarita; Calleguas, which includes cities from Port Hueneme to Thousand Oaks; Santa Monica Bay; Los Angeles, which includes rivers and creeks leading through the San Fernando Valley south to Paramount; and San Pedro Channel Islands, which includes Catalina Island (www.epa.gov/surf3/surf98/county.html). (Watersheds frequently cross county boundaries. Therefore, some counties may

include watersheds that are also located in other counties.) The Cuyama, Santa Barbara Coastal, Calleguas, and Santa Monica Bay watersheds were assigned a "5" by the EPA, indicating "more serious water quality problems but low vulnerability to pollution stressors." (According to the EPA's Index of Watershed Indicators procedures, a pollution stressor includes aquatic/wetland species at risk, toxic loads above limits, urban runoff potential, agricultural runoff potential, population change, hydrologic modification, estuarine pollution susceptibility, and atmospheric deposition.) The Middle Kern-Upper Tehachapi-Grapevine, Santa Ynez, Ventura, Santa Clara, Los Angeles, and San Pedro Channel Islands were all assigned a "3," indicating "less serious water quality problems and low vulnerability to pollution stressors." Data are not available for the Santa Barbara Channel Islands.

Air Quality—Ventura County has the 12th largest population of the 26 counties, paired with the 9th lowest emissions in various categories *(table 40)*. The majority of emissions are projected for marginal decreases dependent upon emission type. Particulates are expected to slightly increase, primarily from area-wide sources, according to the California Air Resources Board (1999).

Table 40—*1996 estimated and 2010 forecasted annual average emissions,Ventura County (cells do not add to column totals due to rounding error).*

Year	Emission category	Emission type[1]						
		TOG	ROG	CO	NOx	SOx	PM	PM10
1996	Stationary	51	10	9	5	2	2	1
	Area-Wide	17	15	35	2	0	43	23
	Mobile	36	32	300	45	2	2	2
	Natural	7	5	29	0	-	5	4
	Total	110	62	370	52	4	51	30
2010	Stationary	64	14	10	6	2	2	2
	Area-Wide	18	15	28	2	-	51	27
	Mobile	13	12	150	25	2	2	1
	Natural	7	5	29	0	-	5	5
	Total	100	47	210	34	4	60	34

Source: California Air Resources Board 1999

[1]TOG: total organic gases; ROG: reactive organic gases; CO: carbon monoxide; NOx: nitrogen oxides; SOx: sulfur oxides; PM: particulate matter; PM10: particulate matter less than or equal to 10 microns (*appendix D*).

Implications

The county population is projected to grow by approximately 23,000 in unincorporated areas from 2000 to 2020. Conversely, growth within the cities of Ventura County is projected at about 147,000, which is more than six times the projected growth for unincorporated areas. The fact that future growth is likely to occur in the cities rather than the unincorporated areas reflects Ventura County's tendency to funnel growth into already developed areas. In 1998, several initiatives were submitted to city councils and the County Board of Supervisors under the title, "Save Open-Space and Agricultural Resources" (SOAR). The voters of Camarillo, Oxnard, Simi Valley, and Thousand Oaks approved SOAR ordinances for their cities, and the majority of the countywide voters approved a SOAR ordinance affecting the unincorporated area of Ventura County. Voters in Ventura approved

a similar SOAR ordinance in 1995, and Moorpark approved a SOAR initiative in January 1999. The city of Santa Paula is the only city not to approve these types of ordinances (www.ventura.org/vcrma/planning/soar.pdf). The SOAR ordinance establishes "City Urban Restriction Boundary" (CURB) lines around each city and requires city voter approval before any land located outside the CURB lines can be developed for urban purposes. The county SOAR ordinance requires countywide voter approval of any change to the County General Plan involving the "Agricultural," "Open Space," or "Rural" land use map designations.

Although there is a desire to limit urban sprawl with such ordinances as SOAR, there is a simultaneous and potentially conflicting goal in the county to attract new growth in the form of high-technology firms. Eastern cities such as Simi Valley and Thousand Oaks are particularly interested in attracting such firms. As these corporations and their employees continue to emigrate from Los Angeles County, their relative significance in Ventura County's economy will increase as oil's influence decreases. The development of coastal tourism will likely have a similar result, although tourism in Ventura County is not likely to be as strong as in Santa Barbara or even San Luis Obispo County (Paulsen and others 1996).

Residents are attracted to Ventura County for the amenities it offers such as clean air, open space, and low crime rates. Many see it as a less expensive alternative to Los Angeles. However, as more and more people are attracted to Ventura County, it remains to be seen whether the county will be able to maintain the environment that has attracted people to the county for the past 30 years.

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Summary and Implications for SCAG Region

The SCAG region is expected to experience tremendous population growth and increased racial and ethnic diversity through the forecast period. Agencies within the region will have to decide how to accommodate the projected growth. While land in farms is decreasing in almost every county in the region, the market value of products sold has increased in every county. This suggests that farms are becoming more productive with smaller parcels of land. How sustainable this trend is in the region is unknown. However, some of the challenges that come with increased growth in the region are housing affordability, traffic congestion, air pollution, protection of open space, and water availability. All are likely to be key policy concerns as the region moves through the 21st century.

IV. The Central Coast Region

The Central Coast faces challenges in the future with regard to protecting its largely undeveloped coastline, protecting its water quality, increasing its water supplies, and protecting productive agricultural land (*fig. 55*). Many of those who have relocated to the Central Coast have come from southern California, causing concern about how the Central Coast will protect its largely rural character when confronted with a surging population that seems to bring higher home prices and increased traffic congestion. Before the late 1980s, many newcomers to the region came from the San Joaquin Valley and other agricultural areas, but the real estate boom in the late 1980s caused a mass migration out of southern California. The more urbanized populations that migrated to the area in the 1980s tended to be affluent, many were active retirees in their 40s and 50s, and they tended to have the time to devote to local culture and politics (Clifford 1990).

The Central Coast holds the last undeveloped stretch of land between San Francisco and San Diego. The region has been confronted with a series of battles that have pitted environmentalists and slow-growth proponents against developers and others in favor of growth in the region. When the Hearst Corporation proposed a plan to build hotels, shops, restaurants, and a golf course near San Simeon, it set in motion the classic struggle over private property rights, development in rural areas, and environmental values (Claiborne 1997, Clifford 1998).

Water availability is a significant concern in the Central Coast region. A State Water Quality Control Board ruling in 1995 determined that local water companies were diverting too much water from the Carmel River on the Monterey Peninsula. Environmentalists found that over-pumping the river has had negative effects on steelhead trout and red-legged frogs, and as a result, the water company must return water to the river. This has meant that there is not enough water even for current water customers on the Monterey Peninsula (Rainey 1999). Although there has been a moratorium on some new construction, other projects have succeeded in obtaining water rights and have built large-scale developments. Clint Eastwood, former Mayor of Carmel, won approval for a development of 88 multimillion dollar homes and a golf course on his Canada Woods property that lies between Carmel Valley and Monterey (Rainey 1999, Sandler 1999). The war over water has caused rifts in Monterey County and significant concern for water availability and the ability to accommodate future growth in Santa Barbara and San Luis Obispo Counties. In Monterey County, seawater intrusion is spoiling wells and endangering crops. Water users have finally agreed on a $40-million plan that includes a new spillway for Nacimiento Dam, for the injection of water back into the ground, and monitoring the nitrate problem (Curtius 1998). In Santa Barbara, water scarcity has traditionally been a roadblock to development. However, residents voted in 1996 to purchase State-provided water, which could open the door to more development than in the past (Hall 1997).

The Los Padres National Forest covers a large portion of the Central Coast region. In particular, the Los Padres covers the majority of land in Santa Barbara County, very likely acting as a growth restraint. The 1957 USDA Forest Service-U.S. Army exchange of lands in southern Monterey County directly influenced land use in that area. The Forest Service acquired prime recreation land at the southern end of the Big Sur Coast while giving up land on the interior side of the

Figure 55—The Central Coast region spans the entire coast from the San Francisco Bay Area to southern California (shaded area).

Source: 50 Individual States—Counties 1995

Santa Lucia Range. As a result, the coastal area is now part of a recreation area of national importance. Had the area been in private ownership, its character would no doubt be very different today (Blakley and Barnette 1985).

Transportation

The region remained isolated until the Southern Pacific Railroad connected it to San Francisco in the north and Los Angeles in the south in the late 19th century. Currently, Pacific Coast Highway (Route 1) and Route 101 connect the region to these two metropolitan areas in the north and south.

The Monterey Bay region is the only area in the State of California where the responsibility for transportation planning is shared by a council of governments (the Association of Monterey Bay Area Governments, also known as AMBAG), regional transportation agencies that operate at the county level, local transit operators, and the State of California Department of Transportation (Caltrans). AMBAG also works with the region's air quality planning and monitoring agency, the Monterey Bay Unified Air Pollution Control District, and local jurisdictions in the region (www.ambag.org/transportation.html).

Cost of Living/Expenditures

In 1996, Santa Barbara County ranked 12th, Monterey County ranked 14th, and San Luis Obispo County ranked 22nd in per capita income out of 58 counties in the State (San Luis Obispo Council of Governments 1999). Comparable information for Santa Cruz County is not available. The region is unaffordable for many because of the high cost of housing combined with low or average wages. The largest percentage of employment in the Central Coast region comprises agriculture, tourism, and military jobs.

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Monterey County

- The largest employment sectors in the county are services, agriculture, retail trade, and tourism.
- With the downsizing of Fort Ord in 1993, military employment has declined in the county.
- The availability of water is a concern for the Monterey Bay Peninsula.
- Three of the six watersheds in the county have serious water quality problems.

History

According to Johnston (1970), the principal Indian groups found in old Monterey County were the Costanoan, Esselen, and Salinan tribes (*fig. 56*). The Costanoan tribe lived in the north and the Salinan tribe lived in the south. The Esselen lived along the Big Sur Coast. All the tribes were hunters and gatherers.

Juan Rodriguez Cabrillo, the first European to explore the Pacific Coast north of Mexico, sailed past Monterey Bay in a storm without seeing it. It was not until the expedition of Sebastian Vizcaíno in 1602 that Monterey was discovered. Vizcaíno's mission was to find a port along the northern coast where galleons could stop. Although Vizcaíno and his crew argued for a port at Monterey, it took another 168 years before the founding of the outpost (Johnston 1970, Elliott and Moore 1881).

In the second half of the 18th century there was renewed interest in founding a port at Monterey, perhaps because of the activities of the Russians or the English in the North Pacific. Don Gaspar de Portolá, Governor of lower California, and Padre Junipero Serra, Presidente of the Franciscan missions of the same area, were selected to head the expedition. The expedition set out from San Diego in 1769. When they reached present-day Monterey County, they failed to recognize the "harbor" described by Vizcaíno and the discouraged party continued on northward, accidentally discovering the San Francisco Bay. When the group headed southward for San Diego, they spent several days searching once more for the Port of Monterey. The discouraged explorers returned to San Diego in 1770.

Four of the 21 missions established in California were located in the area that was to become Monterey County. These missions are San Carlos Borromeo, San Antonio de Padua, Nuestra Señora de Soledad and San Juan Bautista. Although the mission padres saw the primary purpose of the mission as saving Indian souls, to the officials of the Spanish government, the missions had the political purpose of extending the reach of the Spanish empire. With the transition to Mexican rule, the missions were secularized in the mid-1830s. The rancho, carved from lands used by the herds and flocks of the mission, became the dominant social and economic institution of the new regime. Seventy-nine land grants were made in the area of the original Monterey County. The typical grant was for almost 9,000 acres. Through intermarriages and supplemental grants, 10 men and their families controlled most of the choice grazing land. Trading in hides and tallow was the main industry at the time.

During the 1840s, new pioneer settlers with families seeking land began to arrive in California via the overland route. These new settlers added to the number of traders, trappers and other Americans already in Monterey. American concerns about Mexico's weak control of California and the possibility of European invasion, motivated the United States to go to war with Mexico from 1846 to 1849. The United States gained control of California.

Monterey County was one of the original 27 counties created in 1850 when California became a state. Throughout the 1850s and early 1860s, Monterey County continued to be a stock-raising district, helping to satisfy the demands of mining communities. Between 1861 and 1865, California experienced two years of extreme drought and then a winter of great floods. The raising of cattle could not survive

Figure 56—Monterey County is on the coast midway between San Francisco and Santa Barbara (shaded area).

Source: 50 Individual States—Counties 1995

the disasters. After 1865, the dominant product of the county shifted from cattle to grain.

The period from 1868 to 1887 was one of social and economic turmoil. Drought and floods plagued grain farmers. Further aggravating the situation was the fact that the Southern Pacific Railroad had complete control over the shipment of grain. Stabilization efforts led to provisions to restrict the Chinese, to establish a railroad commission, and to equalize tax assessments.

During the 1880s and 1890s, Monterey County experienced a series of economic developments that changed the character of its agriculture, created new towns, established new industries, increased its population, and gave the area railroad transportation to southern California. One of these economic developments was the southward expansion of the Southern Pacific Railroad's coastal route. Farmers in the county introduced new crops, farming methods, and large-scale irrigation projects. Sardine canning began in 1895 and saw tremendous growth for 50 years. By 1900, the concentrations of wealth in Monterey County led it to become the playground of a privileged few.

According to the county of Monterey (1993), in-migration during and after World War II led to tremendous population growth for California and for the Central Coast. Population growth soared and peaked in the 1940s. In 1930, Monterey County had a population of 53,705 residents. Between 1940 and 1950, Monterey County grew by 79 percent to 130,498 residents. The growth rate declined from 1950 onward so that the county grew by 17 percent in the 1970s, comparable to the rate of growth in the State overall. Historically, population growth in the county shifted from growth in unincorporated areas to incorporated cities.

Monterey County Today

Monterey County comprises 12 cities and a number of unincorporated areas (County of Monterey 1993). Salinas is the county seat and the largest city, with an estimated 2000 population of 138,271 (www.salinas.com/profile/index.html).

Monterey County is best known for its coastline and its golf and recreational opportunities. However, agriculture is the county's biggest economic contributor (www.co.monterey.ca.us/oed/). In 1997, Monterey was ranked third in the top 10 agriculturally productive counties in California (www.cdfa.ca.gov/statistics/California.html). Land in farms increased 12 percent and the average size of farms increased 16 percent from 1992 to 1997 (United States Department of Agriculture 1997). According to the Monterey County Crop Report, in 1999, the total value of crops produced in Monterey County was $2.4 billion (www.co.monterey.ca.us/ag/agpages/mocoagfacts.html).

In addition to tourism and agriculture, Monterey County is developing its educational sector, particularly in international languages (www.mpcc.com). Monterey County is home to the Monterey Institute of International Studies. Other well-known institutes include the Naval Postgraduate School and Hopkins Marine Station-Stanford University (Wood 1995). The county is also the location of California State University, Monterey Bay (CSUMB) whose doors opened in August 1995. By the year 2030, CSUMB is expected to enroll 25,000 full-time students, approximately half of whom will take their classes in "nontraditional" ways, such as via the Internet or in intensive weekend classes (news.monterey.edu/faq.html).

Sociodemographic Characteristics

Projected Population—DOF and Association of Monterey Bay Area Governments (AMBAG) calculated projections for Monterey County *(table 41)*. An increasing population is expected through the forecast period, though the amount of that increase differs according to the source. DOF's projections are higher than AMBAG's throughout the forecast period by as much as 38,493 (in 2020).

Table 41—*Population projections, Monterey County, 1990-2040.*

Source	1990	1995	2000	2005	2010	2015	2020	2030	2040
U.S. Census	355,660[1]	-	401,762	-	-	-	-	-	-
DOF	357,364[2]	-	401,886	-	479,638	-	575,102	700,064	855,213
AMBAG	355,660	362,874	400,907	435,453	472,562	503,669	536,609	-	-

Source: United States Census Bureau 1990a and 2000, State of California Department of Finance 1998, Association of Monterey Bay Area Governments 1997

[1] Data from April 1.

[2] Data from July 1.

Ethnic and Racial Diversity—Monterey County has grown in ethnic diversity between 1990 and 2000 (*table 42*). In 1990, non-Hispanic Whites were the majority in the county, but in 2000 Hispanics comprised almost half the population of the county.

Table 42—*1990 and 2000 population, Monterey County.*

	1990	2000
	Percent	
Non-Hispanic White	52.3	40.3
Hispanic all races	33.6	46.8
Non-Hispanic Black	6.0	3.5
Non-Hispanic Asian	7.1	6.2
Non-Hispanic American Indian	0.6	0.4
Non-Hispanic other	0.3	0.3
Non-Hispanic two or more races	N/A	2.5

Source: United States Census Bureau 1990a, 2000

In 1990, 21.6 percent of Monterey County's population was foreign-born. Slightly more than one-third (35.5 percent) of residents age 5 and older spoke a language other than English at home. Of those, the majority (74.8 percent) spoke Spanish, and 25.2 percent spoke a language other than English or Spanish (United States Census Bureau 1990b).

Linguistic diversity is also reflected within the schools in the region. The majority of LEP students in Monterey County public schools speak Spanish, Pilipino, or Vietnamese (*fig. 57*), though Spanish is more prevalent within the school system than in homes. In 1997-98, 34.8 percent of Monterey County's public school students were LEP.

Projected Ethnic and Racial Diversity—In addition to the increase in overall population in Monterey County, a marked decrease in Whites as a proportion of the population and lesser decreases among Asians, Blacks, and American Indians are projected (*fig. 58*). Hispanics are projected to have a substantial increase in their proportion of the overall population through 2040.

The proportion of Whites is expected to decrease by approximately 41 percent through the forecast period, Blacks, Asians, and American Indians by approximately 2 percent or less (*table 43*). Hispanics are expected to increase as a population of the total, equaling almost half of the total population.

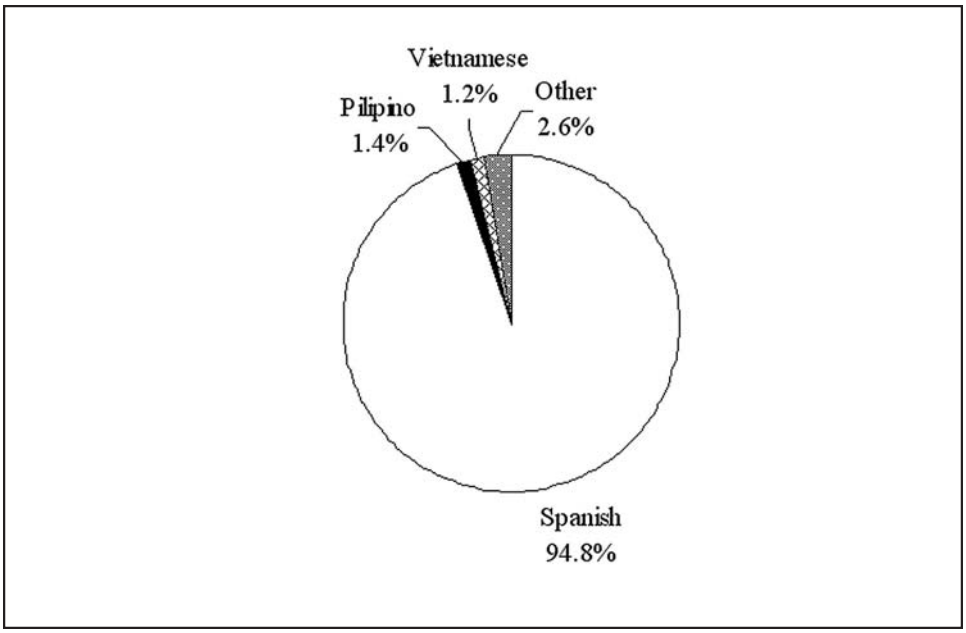
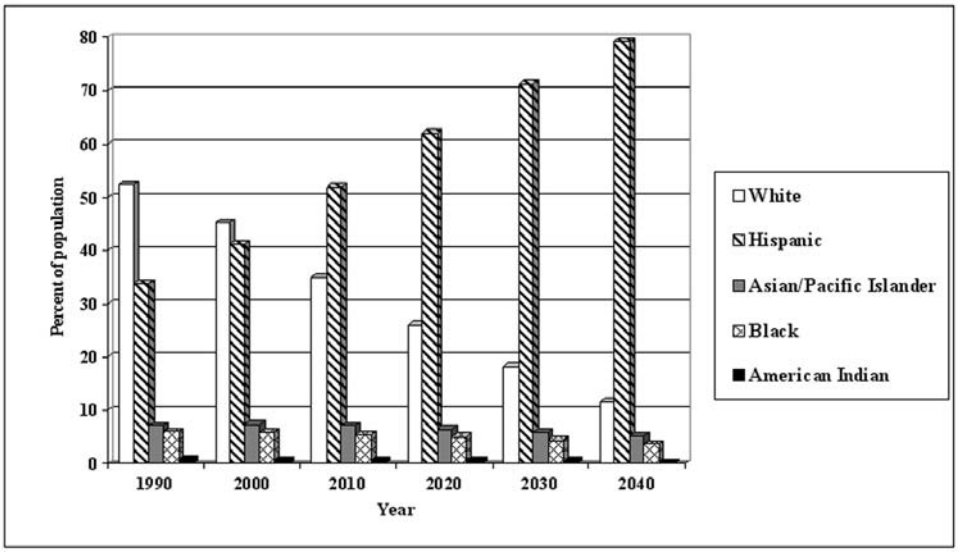


Figure 57—Limited-English-Proficient (LEP) students in Monterey County public school districts, by language, 1997-1998.

Source: California Department of Education 1998b

Figure 58—Racial and ethnic diversity trends for Monterey County.



Source: State of California Department of Finance 1998

Table 43—*Percent race/ethnicity and percent change in Monterey County, 1990-2040.*

Racial/ethnic group	1990	2000	2010	2020	2030	2040	Cumulative percent change
	Year						
White	52.41 -	45.15 (-7.26)	35.01 (-10.14)	26.05 (-8.96)	18.24 (-7.81)	11.67 (-6.57)	-40.74
Hispanic	33.79 -	41.10 (7.31)	51.95 (10.85)	62.09 (10.14)	71.28 (9.18)	79.22 (7.94)	45.43
Asian/Pacific Islander	7.16 -	7.31 (0.16)	7.07 (-0.24)	6.43 (-0.65)	5.79 (-0.64)	5.11 (-0.68)	-2.05
Black	6.04 -	5.85 (-0.19)	5.45 (-0.40)	4.99 (-0.46)	4.34 (-0.65)	3.72 (-0.62)	-2.32
American Indian	0.60 -	0.58 (-0.01)	0.51 (-0.07)	0.44 (-0.08)	0.35 (-0.09)	0.27 (-0.08)	-0.33

Source: State of California Department of Finance 1998

Along with projected changes in race and ethnicity, changes in the area population's age are projected. Projected median age for Monterey County residents varies by race/ethnicity and gender (*fig. 59*). American Indians are projected to have the steepest increases in median age between 1990 and 2040 (from 30 to 55.8), followed by Whites (from 34 to 54.5). Asians and Blacks also are projected for increases in median age (from 31 to 42.5, and 25.5 to 38.5, respectively). Hispanic median age is not expected to increase throughout the forecast period (median age of 22.5). With the exception of Hispanics, females have higher projected median ages among the ethnic/racial groups in Monterey County.

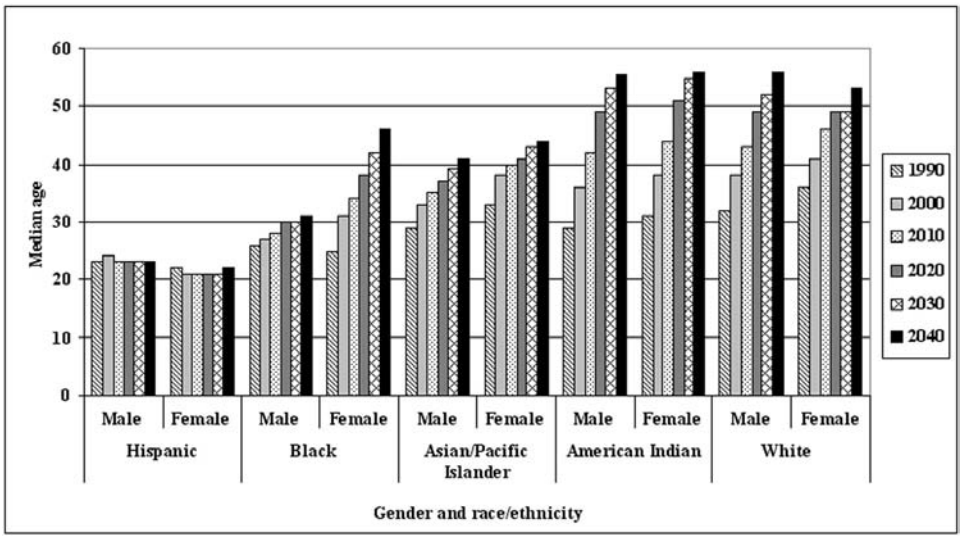


Figure 59—Median age by gender and race/ethnicity, Monterey County, 1990-2040.

Source: State of California Department of Finance 1998

Development and Real Estate

Building trends in Monterey County from 1987 to 1998 reveal that residential construction took a downward swing during the recession, though recovered to pre-recession levels by 1996 (*fig. 60*). Non-residential development was somewhat unstable, and represented a smaller share of construction in the county.

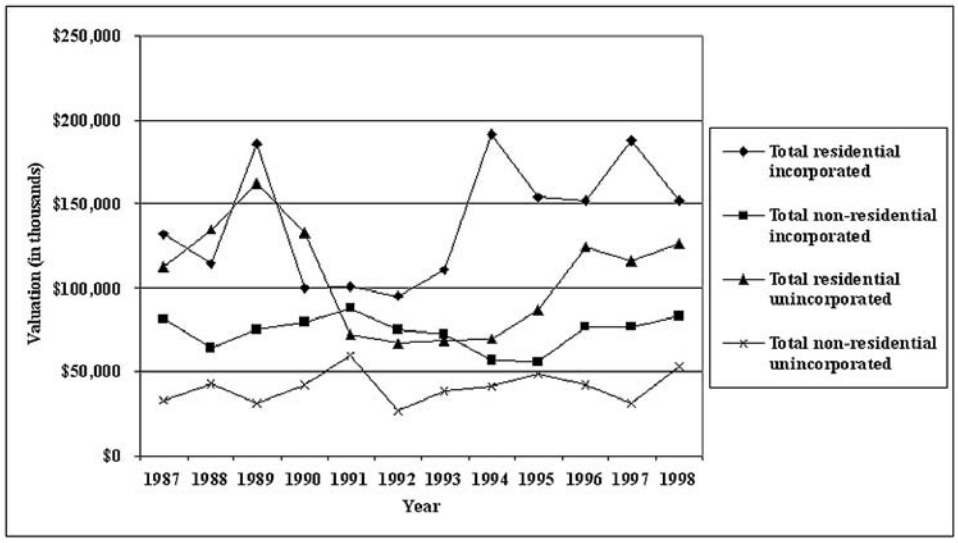


Figure 60—Building trends, Monterey County, in 1998 dollars, 1987-1998.

Source: Construction Industry Research Board 1988-1999

In 1990, Monterey County had 112,965 households and 121,224 housing units. The vast majority (93.2 percent) of housing units were occupied; 6.8 percent were vacant (United States Census Bureau 1990a). In 2000, there were 132,455 housing units, and the vacancy rate was 10.3 percent (Ikeda 2001). Of the occupied housing units, slightly more than half (50.6 percent) were owner-occupied; 49.4 percent were renter-occupied (United States Census Bureau 1990a). The median value of owner-occupied housing units in 1990 was $198,200, and the median rent was $625 per month. In 2000, the median sales price of a home in the county was $399,620 (Housing and Redevelopment Agency 2001). The overall trend has been toward increased housing prices, especially as demand from Silicon Valley has increased (www.co.monterey.ca.us/oed/).

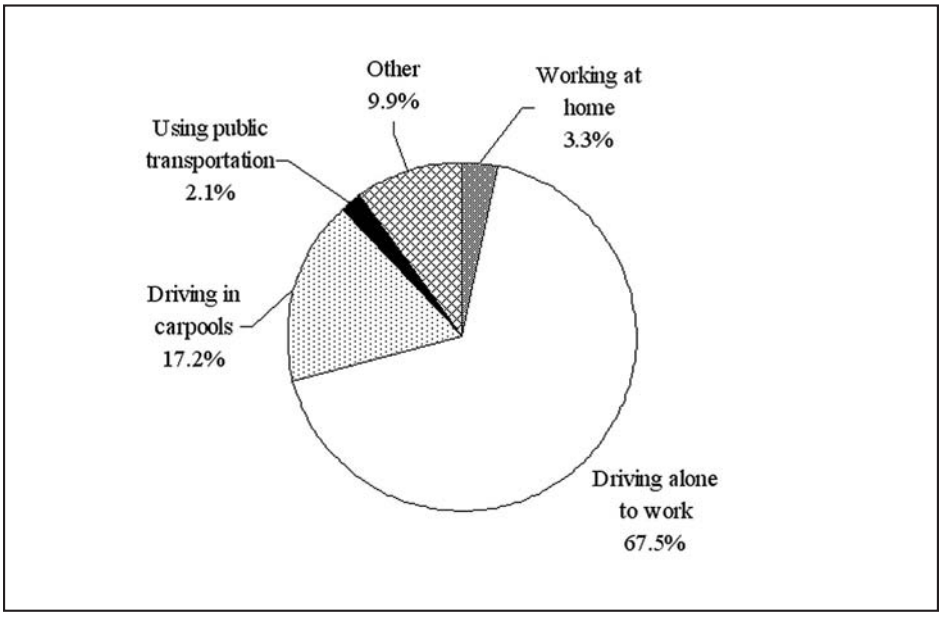
Quality of Life Indicators

Transportation, Commuting, and Employment—In 1990, there were 164,270 workers age 16 and older in Monterey County, and an average of 1.8 vehicles per household. Almost 8 percent of Monterey County residents worked outside the county. Slightly more than two-thirds (67.5 percent) of workers drove to work alone, and almost one-fifth carpooled to work *(fig. 61)*. A few worked at home, or used public transportation. The average travel time to work was 18 minutes, which was less than the average commute of 19.5 minutes for the Central Coast region.

The economy of Monterey comprises three bases: agriculture, primarily in the Salinas Valley; tourism, primarily in the coastal areas; and the military (www.co.monterey.ca.us/oed/). A related industry is manufacturing, primarily food processing. The top cash crops are lettuce, broccoli, strawberries, nursery crops, grapes, cauliflower, celery, spinach, and mushrooms (www.co.monterey.ca.us/ag/agpages/mocoagfacts.html). The largest employers in the county are the county of Monterey with 3,516 employees and Dole Fresh Vegetable with 3,000 employees (www.co.monterey.ca.us/oed/). With the downsizing of Fort Ord in 1993, and the relocation of its 13,000 soldiers and their families, the community is aiming to replace the military sector with an education sector (www.mpcc.com). In 1994, base property was transferred to CSUMB and the University of California for the UC Monterey Bay Science and Technology Center (www.fora.org/reuse.html). The former base has multiple land uses: open space, endangered species habitat, educational and research uses, residential uses, commercial uses, Army uses, and infrastructure rights of way (www.fora.org/reuse.html).

As of 1995, the three industries with the highest employment were services (22 percent), agriculture (18 percent), and retail trade (17 percent). While the share of agricultural employment declined between 1990 and 1995, the services sector's share increased (www.mpcc.com). Growth in tourism will be determined to some extent by water and sewer constraints on the Monterey Peninsula (County of Monterey 1993). Water supply is a problem in the Carmel River watershed, which serves all of Monterey Peninsula. The Salinas River is affected by seawater intrusion at the mouth of the river, and heavy agricultural use has impacted shallow

Figure 61—Commuting patterns, workers 16 and older, Monterey County, 1990.



Source: United States Census Bureau 1990b

aquifers. The Pajaro River, which forms the boundary between Santa Cruz and Monterey Counties, is also affected by seawater intrusion (Ikeda 2001).

Education—The county has 70 elementary schools, 18 middle schools, and 11 high schools (*table 44*). Average enrollment per school is greatest at the high school level, which is the pattern across the assessment area and all counties. Monterey County serves slightly more than 1 percent of the assessment area's school enrollments. County schools have the 17th highest enrollment overall, and they are 16th in highest average enrollment per school. Students in the 2nd through 11th grade were tested using the Stanford 9 at 90 of the county schools. Monterey County's ranking in academic performance for 1999 was a mean of 3.68 out of 10 (based on the similarity index, www.cde.ca.gov), indicating lower-than-average performance than similar schools. Although 40 percent and 27.7 percent of schools in the county performed well below or below average compared to similar schools, 3.3 percent were well above average and 11.1 percent were above average.

Table 44—*Enrollment and number of schools, Monterey County, 1998-1999.*

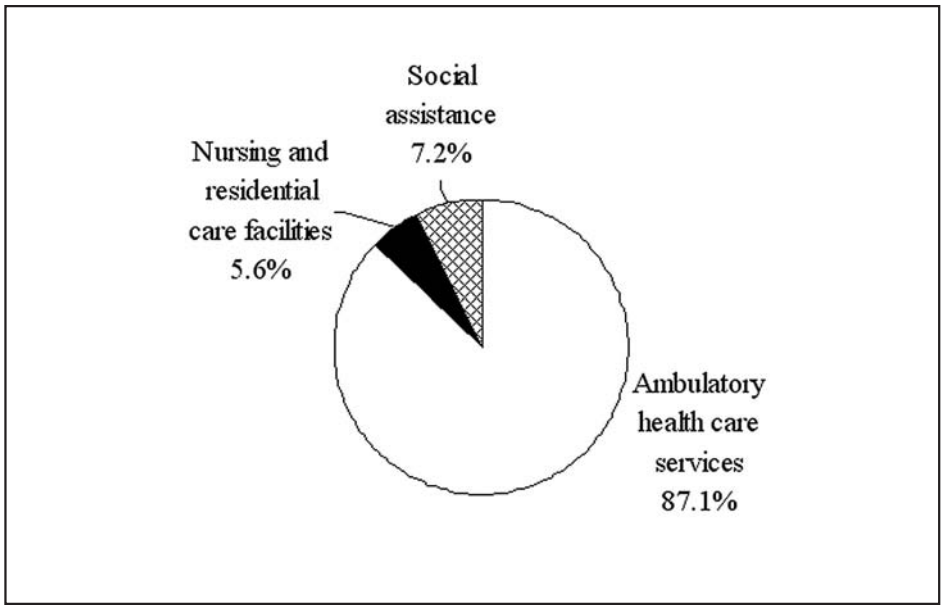
Type of school	Total enrollment	Percent of total enrollment	Number of schools	Average enrollment/school
Elementary	37,347	55.8	70	534
Middle/Junior High	13,089	19.5	18	727
High School	16,554	24.7	11	1,505
Total	66,990	100.0	99	-

Source: California Department of Education 1998a

Health Care—The largest number of health care establishments in the county deliver ambulatory health care services, followed by social assistance, and nursing and residential care. There are no hospitals in Monterey County, as reported by the U.S. Census Bureau (*fig. 62*). However, the county has four hospitals, representing 1.0 percent of the assessment area's total hospitals (ahd.tool.net/list.php3/mstate=ca). Half of the hospitals are nonprofit, with the balance classified as county facilities. For those hospitals with reported data (four hospitals), a total of 724 beds and 165,933 total patient days were recorded in 1999. The county ranked 20th in number of hospitals, comparable to its 17th place ranking in population.

Recreation and Tourism—Among the assessment area's 26 counties, Monterey ranked 16th in the 1997 economic census in accommodations and food services, and 18th in arts, entertainment, and recreation (United States Census Bureau 1999b, 1999c). A total of 905 accommodation and food-services establishments, with $835,256,000 in receipts, was reported. Arts, entertainment, and recreation services involved 86 establishments, with receipts totaling $71,412,000.

Figure 62—Health care and social assistance establishments, Monterey County, 1997.



Source: United States Census Bureau 1999a

The county offers a wide array of recreational opportunities. The Los Padres National Forest spans much of the county and offers riparian, coastal, wildland, and wilderness experiences. Lake San Antonio is the largest of the county's freshwater recreation areas (www.co.monterey.ca.us/parks). State beaches and parks offer coastal opportunities for recreation, and include the Carmel River State Beach, Asilomar State Beach, and Andrew Molera State Park (www.wildernet.com). Pfeiffer Big Sur State Park is known for picnicking, hiking, and camping among coastal redwoods (www.gomonterey.org). The city of Monterey has Cannery Row, the Monterey Bay Aquarium, and Fisherman's Wharf (www.monterey-travel.org). Wineries and Carmel are among the many opportunities of interest to tourists in this region.

Environmental Indicators

Water Quality—Monterey County crosses six watersheds: Upper Los Gatos-Avenal, Pajaro, Estrella, Salinas, Central Coastal, and Carmel (www.epa.gov/surf3/surf98/county.html). (Watersheds frequently cross county boundaries. Therefore, some counties may include watersheds that are also located in other counties.) The Pajaro, Salinas, and Carmel watersheds were assigned a "6" by the EPA, indicating "more serious water quality problems and high vulnerability to pollution stressors." (According to the EPA's Index of Watershed Indicators procedures, a pollution stressor includes aquatic/wetland species at risk, toxic loads above limits, urban runoff potential, agricultural runoff potential, population change, hydrologic modification, estuarine pollution susceptibility, and atmospheric deposition.) The Central Coastal watershed was assigned a "3," indicating "less serious water quality problems and low vulnerability to pollution stressors." Data are not available for the Upper Los Gatos-Avenal and Estrella watersheds.

Air Quality—Monterey County has the 18th largest population of the 26 counties and is below average in air emissions (*table 45*), ranking 13th or below in all emission types except sulfur oxides (ranked 10th; *appendix D*). The majority of emissions are projected for decreases, though total organic gases and particulates are projected for increases, according to the California Air Resources Board (1999).

Table 45—*1996 estimated and 2010 forecasted annual average emissions, Monterey County (cells do not add to column totals due to rounding error).*

Year	Emission category	Emission type[1]						
		TOG	ROG	CO	NOx	SOx	PM	PM10
1996	Stationary	110	8	13	15	3	3	2
	Area-Wide	18	16	49	1	0	67	35
	Mobile	21	19	180	32	1	2	1
	Natural	2	1	20	0	-	3	3
	Total	150	44	260	49	5	75	41
2010	Stationary	140	10	18	15	4	3	2
	Area-Wide	20	17	55	2	0	71	37
	Mobile	11	10	110	23	2	2	2
	Natural	2	1	20	0	-	3	3
	Total	170	38	200	40	6	79	44

Source: California Air Resources Board 1999

[1] TOG: total organic gases; ROG: reactive organic gases; CO: carbon monoxide; NOx: nitrogen oxides; SOx: sulfur oxides; PM: particulate matter; PM10: particulate matter less than or equal to 10 microns (*appendix D*).

Implications

Monterey County shows the largest projected increase in population for any county in the Central Coast region. By 2010, the county is expected to be the most populous county in the region. Monterey County is also notable for its projected growth in the Hispanic population, such that by 2040 it is expected that Hispanics will comprise almost 80 percent of the total population. In addition to increasing diversity, all ethnic groups except Hispanics are expected to show increases in median age.

Monterey County seems to have some educational challenges to face because it has the lowest Stanford 9 scores in the region. Monterey County will have to decide how to distribute its public resources, because it will have a significant older population as well as a growing predominantly Hispanic youth, each who will have different needs.

Almost 30 percent of the county is publicly owned and generally not subject to private development (County of Monterey 1993). The Federal government owns the majority of the public land. Public land ownership likely will shape growth in the region, perhaps acting as a constraint. Another constraint on growth is the availability and cost of water in the county. The availability of resources, such as water, and infrastructure capacity, such as roads, can limit growth. Currently, demand for water exceeds supply in three areas of the county (www.co.monterey.ca.us/gpu/Reports/Reports_Page.htm). Monterey County's numerous recreational and tourism opportunities attract people to the area, which strengthens the economy while simultaneously creating strains on natural resources as more people choose to settle in the county. The challenge of balancing urban growth and the preservation of the environment, which attracts visitors and residents to the area, is a common theme in the Central Coast region.

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San Luis Obispo County

- Local government and education are the county's largest employment sectors, with county government and California State Polytechnic University, San Luis Obispo as the largest employers.
- Educational performance in county public schools is high.
- Whites are expected to remain the majority in the county through 2040.

History

The first inhabitants of the area were the Chumash Indians (Robinson 1957). Juan Rodriguez Cabrillo, the Portuguese navigator sailing under the Spanish flag, was the first to travel along this part of the California coast in 1542 (Robinson 1957). There is no proof that he entered what is now San Luis Obispo County (*fig. 63*). A later voyage was made by Sebastian Vizcaíno, who gave lasting names to many California coastal areas and who probably entered San Luis Obispo Bay where he traded with Indians coming out in canoes. His description of the virtues of Monterey as a port drew Spanish interest to that area. The Portolá expedition, heading for Monterey, crossed San Luis Obispo County in 1769. Spanish missionary

Figure 63—San Luis Obispo County is north of Santa Barbara (shaded area).

Source: 50 Individual States—Counties 1995

settlement in the area occurred in 1772 (Nevarez and others 1996) because supply ships had failed to reach the Presidio at Monterey and an expedition headed south into San Luis Obispo's "Valley of the Bears" to forage for food (Robinson 1957).

Two missions—San Luis Obispo de Tolosa and San Miguel Arcangel—were established in the San Luis Obispo region in 1772 and 1797, respectively (Robinson 1957). Mission San Luis Obispo had fertile soils with large harvests of wheat, thousands of cattle, and eight sheep farms, making it one of the wealthiest missions in California. The Indians of the San Miguel area were the Salinan (Robinson 1957).

In the 1830s, ranchos were prevalent in the county. These land grants resulted in the establishment of an elite in San Luis Obispo County. Vast landholdings remained in family hands, establishing a pattern of sparse human settlement and agricultural land use throughout the bulk of south county that continues to the present day (Nevarez and others 1996). Cattle ranching and agriculture predominated during this era in San Luis Obispo County.

In 1850, San Luis Obispo became one of California's original 27 counties (Robinson 1957). In 1861, stagecoaches began to enter the county. The stage lines connected the towns that were growing up along the coast. New ethnic groups (Chinese, Portuguese, and Swiss immigrants) arrived in the area to work on the railroads and farms in the 1860s (Nevarez and others 1996). By 1873, the Southern Pacific Railroad had been extended from San Francisco into the region (Robinson 1957). In the second half of the 19th century, droughts led to the consolidation of cattle ranches into fewer hands and subsequently to the breakup of the ranchos. Dairies and small farms then became vital to the economy (Nevarez and others 1996, Robinson 1957). Mining was also occurring during this period and the railroads made mining feasible.

Between 1914 and 1945, San Luis Obispo County retained its predominantly rural character (Nevarez and others 1996). Non-irrigated farming and local land ownership continued to be the basis for small town life during this era. Cattle, grain, and dairy were San Luis Obispo County's most valuable products. Agriculture employed an ethnically diverse workforce across the county's regions.

The Depression of the 1930s brought significant changes to the agricultural base of the county. A decrease in profit margins encouraged the progressive mechanization of agriculture, which in turn necessitated larger acreages so that the pattern of agricultural landholding became large-scale and concentrated (Nevarez and others 1996).

World War II brought dramatic growth to several of the county's communities. The U.S. War Department selected California's central coast to be a major training site for soldiers. Altogether, more than 75,000 military personnel were stationed in the central coast during World War II. After the war, many of these soldiers settled in the area (Nevarez and others 1996).

Between 1940 and 1960, there was dramatic population growth, and farming's share of jobs continued to decline. The number of professionals in the county grew dramatically between 1940 and 1950 and almost doubled again between 1950 and 1960, coinciding with an expansion of California Polytechnic University, San Luis Obispo (Cal Poly SLO). Tourism became a major industry through the 1950s and 1960s. The public sector also expanded during this period with the opening of a men's prison and a mental hospital in Atascadero and with growth in county and State government. Public sector employment provided a non-cyclical stability to the county's labor force. After 1969, non-farm occupations in the county continued to expand, population continued to grow, more than doubling every 20 years, and educational attainment caught up with State averages.

San Luis Obispo County Today

The county includes seven incorporated communities: Arroyo Grande, Atascadero, Grover Beach, Morro Bay, Paso Robles, Pismo Beach, and San Luis Obispo. The county is primarily rural with one large urbanized area, the city of San Luis

Obispo, and several smaller urban areas such as Paso Robles and Atascadero (San Luis Obispo Council of Governments 1999). Environmental battles have occurred in the county, the most recent being the debate over the proposal to replace an old power plant with a new one in Morro Bay (Hong 2000). Duke Energy Corporation proposed replacement of the existing plant with a new, more efficient facility that would begin operation in 2003. The new plant would use exhaust stacks that are one-third as tall as the existing stacks, and therefore, they would block less of Morro Bay's scenic views. However, opponents of the plant said that a new plant is not really needed and that State power needs can be addressed by construction plans for plants already approved elsewhere (Hong 2000). While this particular conflict has been resolved, it highlights an ongoing theme in the Central Coast region: the battle between those in favor of extractive economic activities that can potentially threaten environmental quality and those in favor of economic activities that capitalize on the area's scenic beauty, such as tourism.

San Luis Obispo County has a diverse array of communities within its borders including retirement communities, tourist towns, working-class towns, middle-class suburbs and the city of San Luis Obispo, which combines aspects of all the other categories (Nevarez and others 1996). The influx of middle-class families as well as retirees and tourists into the region has renewed debate about growth and quality of life in the county.

Sociodemographic Characteristics

Projected Population—DOF and San Luis Obispo Council of Governments (SLOCOG) calculated population projections for San Luis Obispo County (*table 46)*. An increasing population is expected through the forecast period, though the amount of increase differs according to the source. DOF's projections are higher than SLOCOG's throughout the forecast period, with a gap of 69,719 persons in 2020. SLOCOG's projections are lower because they anticipate a build-out scenario for several communities based on adopted city and county general plans (San Luis Obispo Council of Governments 1999). Population growth will likely continue in the cities where it has occurred for the last two decades (i.e., San Luis Obispo, Atascadero, Paso Robles). Countywide growth is expected to be more moderate than in nearby Santa Barbara and Ventura Counties (Nevarez and others 1996).

Ethnic and Racial Diversity—In 1990 and 2000, Whites were the majority in the county *(table 47)*.

Table 46—*Population projections, San Luis Obispo County, 1990-2040.*

Source	1990	1995	2000	2005	2010	2015	2020	2030	2040
U.S. Census	217,162[1]	-	246,681	-	-	-	-	-	-
DOF	217,944[2]	-	254,818	-	324,741	-	392,329	461,839	535,901
SLOCOG	217,162	227,225	245,025	267,336	287,888	305,329	322,610	-	-

Source: United States Census Bureau 1990a and 2000, State of California Department of Finance 1998, San Luis Obispo Council of Governments 1999

[1] Data from April 1.

[2] Data from July 1.

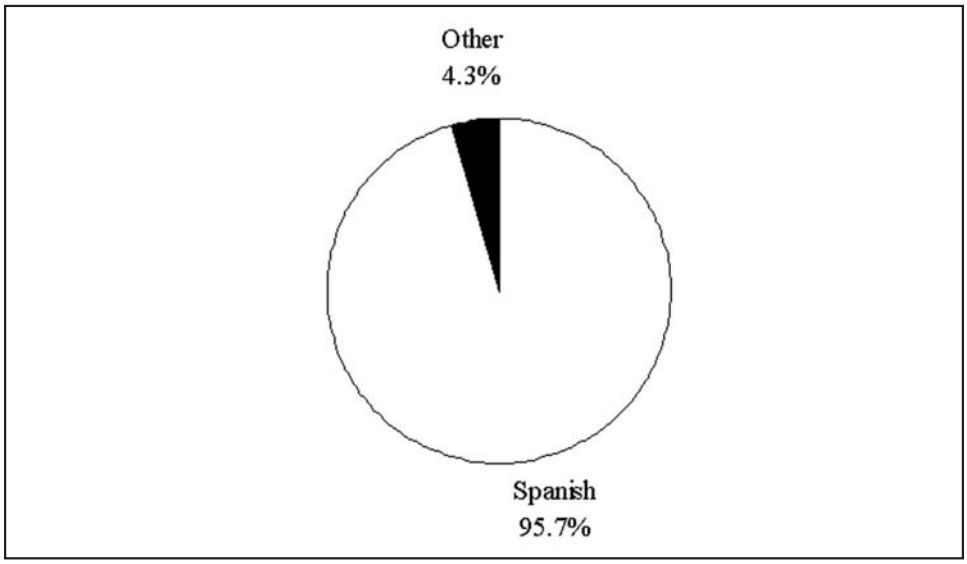
Table 47—*1990 and 2000 population, San Luis Obispo County.*

	1990	2000
	Percent	
Non-Hispanic White	81.2	76.1
Hispanic all races	13.3	16.3
Non-Hispanic Black	2.0	1.9
Non-Hispanic Asian	2.7	2.7
Non-Hispanic American Indian	0.8	0.6
Non-Hispanic other	0.1	0.1
Non-Hispanic two or more races	N/A	2.2

Source: United States Census Bureau 1990a, 2000

In 1990, only 7.5 percent of the county population was foreign-born. Slightly more than one-tenth (12.1 percent) of county residents age 5 and older spoke a language other than English at home. Of those, the majority (65.9 percent) spoke Spanish and 34.1 percent spoke a language other than English or Spanish (United States Census Bureau 1990b).

Some linguistic diversity is reflected within the schools in the region. The majority of LEP students in San Luis Obispo County public schools speak Spanish—mirroring the languages spoken at home (*fig. 64*). In 1997-98, 8.3 percent of San Luis Obispo County's public school students were LEP.

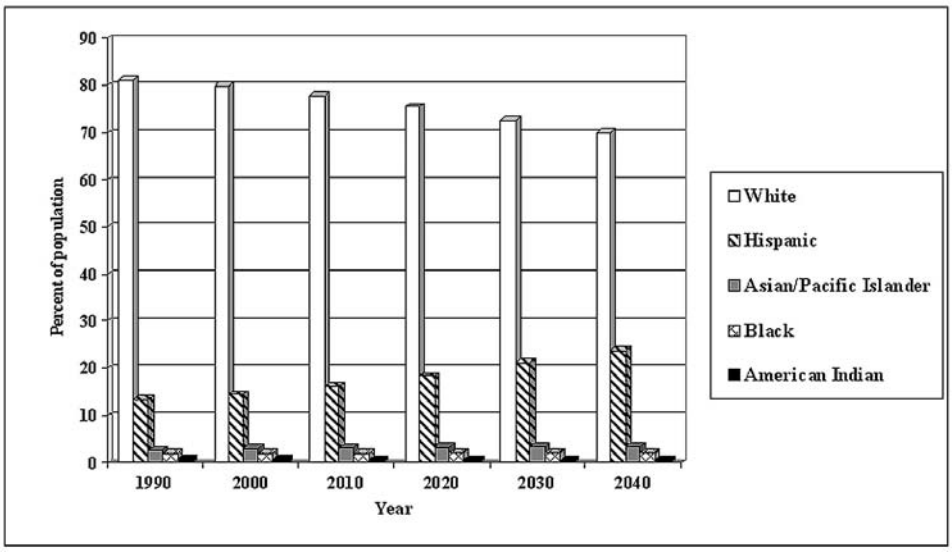


Source: California Department of Education 1998b

Figure 64—Limited-English-Proficient (LEP) students in San Luis Obispo County public school districts, by language, 1997-1998.

Projected Ethnic and Racial Diversity—In addition to the increase in overall population in San Luis Obispo County, some changes in ethnic and racial diversity are expected. Whites are expected to remain a majority of the population through 2040, though they are projected to slightly decrease as a proportion of the population, while Hispanics are projected to increase their share of total population (*fig. 65*). Asians, Blacks, and American Indians represent a relatively small proportion of the county population, and are expected to continue to do so.

The proportion of Whites is expected to decrease by slightly more than 10



Source: State of California Department of Finance 1998

Figure 65—Racial and ethnic diversity trends for San Luis Obispo County.

percent through the forecast period, while Hispanics increase by approximately that same amount (*table 48*). Whites are expected to remain a majority of the county population in spite of these changes.

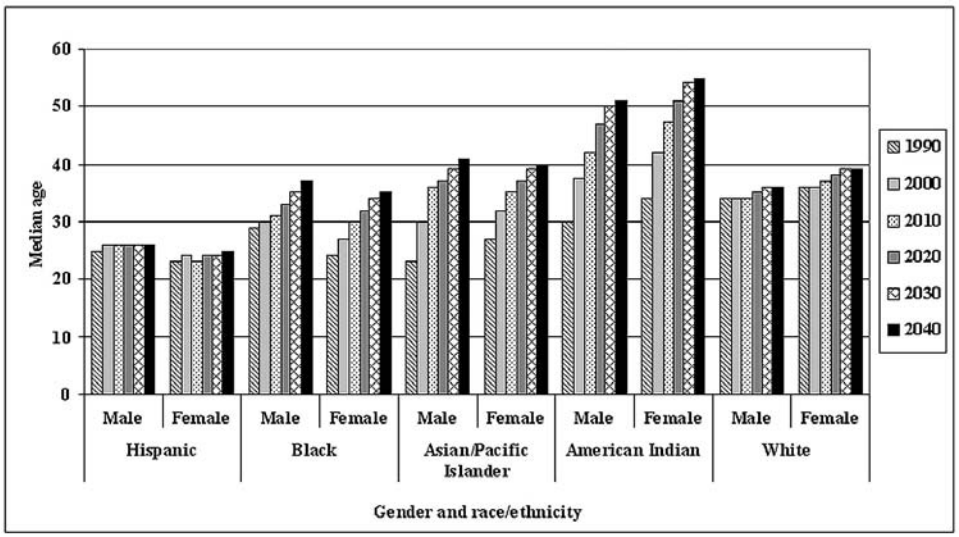
Table 48—*Percent race/ethnicity and percent change in San Luis Obispo County, 1990-2040.*

Racial/ethnic group	1990	2000	2010	2020	2030	2040	Cumulative percent change
	----------Year----------						
White	81.23 -	79.80 (-1.43)	77.94 (-1.86)	75.49 (-2.44)	72.79 (-2.71)	70.20 (-2.58)	-11.02
Hispanic	13.36 -	14.57 (1.21)	16.15 (1.59)	18.45 (2.29)	21.09 (2.64)	23.72 (2.62)	10.35
Asian/Pacific Islander	2.65 -	2.93 (0.27)	3.24 (0.31)	3.34 (0.09)	3.43 (0.10)	3.46 (0.03)	0.80
Black	2.00 -	2.03 (0.03)	2.08 (0.06)	2.21 (0.13)	2.24 (0.03)	2.24 (0.00)	0.24
American Indian	0.76 -	0.68 (-0.08)	0.58 (-0.09)	0.51 (-0.07)	0.44 (-0.06)	0.38 (-0.06)	-0.38

Source: State of California Department of Finance 1998

Along with projected changes in race and ethnicity, changes in the area population's age are projected. Projected median age for San Luis Obispo County residents varies by race/ethnicity and gender (*fig. 66*). American Indians have the highest projected increases in median age between 1990 and 2040 (from 32 to 53), followed by Asians (25 to 40.5) and Blacks (22.5 to 36). The White and Hispanic populations' median ages remain relatively stable across the forecast period (35 to 37.5, and 25 to 25.5, respectively), although Hispanics remain younger as a group. The age characteristics of the San Luis Obispo region reflect a higher percentage of people over 65 years of age and a lower percentage of people age 17 or younger than for the State as a whole (San Luis Obispo Council of Governments 1999).

Figure 66—Median age by gender and race/ethnicity, San Luis Obispo County, 1990-2040.



Source: State of California Department of Finance 1998

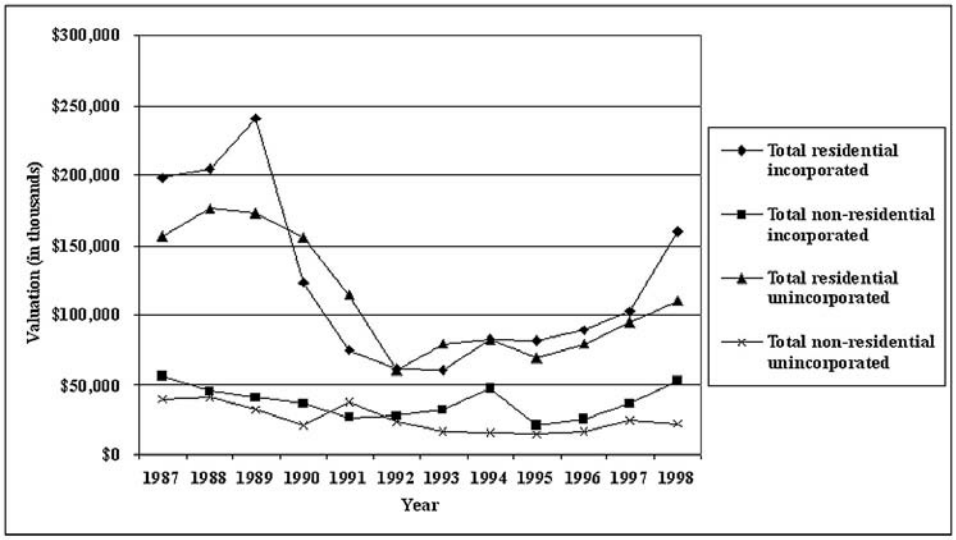
Development and Real Estate

Building trends in San Luis Obispo County from 1987 to 1990 reveal that residential construction took a downward trend in recession years, with post-recession recovery being conservative (*fig. 67*). Non-residential construction remained a small and stable proportion of total building in the county.

In 1990, San Luis Obispo County had 80,281 households and 90,200 housing units. The vast majority (89.0 percent) of housing units were occupied; 11.0 percent were vacant (United States Census Bureau 1990a). Of the occupied housing units, the majority (59.8 percent) were owner-occupied; 40.2 percent were renter-occupied (United States Census Bureau 1990a). The median value of owner-occupied housing units in 1990 was $215,300, and the median rent was $573 per month.

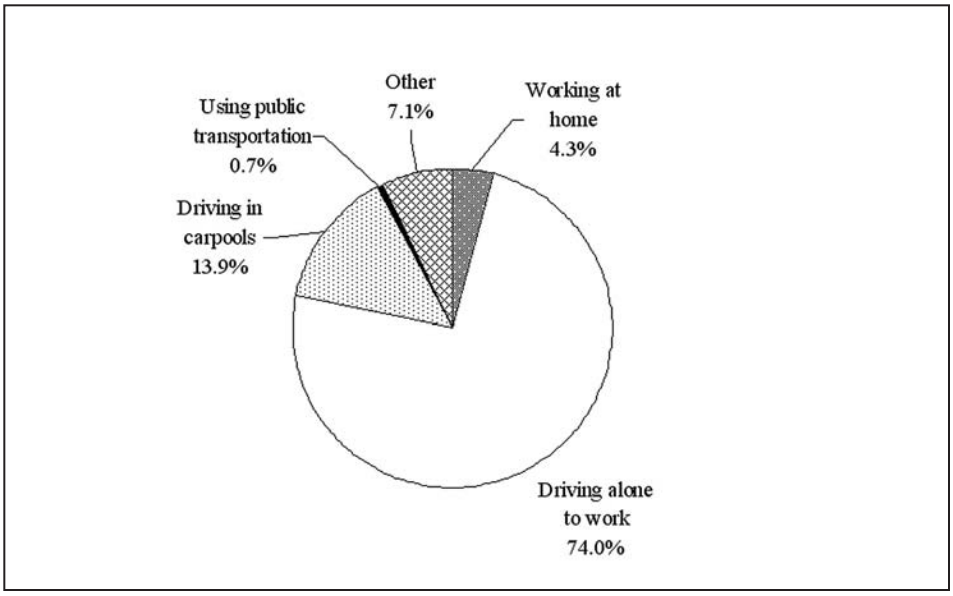
Quality of Life Indicators

Transportation, Commuting, and Employment—In 1990, there were 95,688 workers age 16 and older in San Luis Obispo County, and an average of 1.9 vehicles per household. Less than one-tenth (9 percent) worked outside the county. The majority drove to work alone, although a few carpooled (*fig. 68*). Very few worked at home or used public transportation. The average travel time to work was 18.3 minutes, less than the Central Coast regional average of 19.5 minutes.



Source: Construction Industry Research Board 1988-1999

Figure 67—Building trends, San Luis Obispo County, in 1998 dollars, 1987-1998.



Source: United States Census Bureau 1990b

Figure 68—Commuting patterns, workers 16 and older, San Luis Obispo County, 1990.

The largest employment sectors in the San Luis Obispo region in 1997 were retail trade (25 percent), government (25 percent), and services (24 percent) (San Luis Obispo Council of Governments 1999). County government and Cal Poly SLO are the county's largest employers. Cal Poly SLO is a magnet not only for students and faculty, but parents who visit their children may choose San Luis Obispo as a place to retire (Nevarez and others 1996). It is expected that the economy will develop further in the following three directions: (1) an information/service economy in San Luis Obispo and south county, (2) an agribusiness economy based in Paso Robles and north county, and (3) a tourism/retirement economy located along the coast (Nevarez and others 1996).

Agriculture is concentrated in the north county. The main products are fruit, nut, and vegetable crops. The value of wine grapes has also increased considerably since 1994 (San Luis Obispo Council of Governments 1999). Cattle ranching is also an important part of the agricultural sector. While the land in farms, the average size of farms, and the number of full-time farms decreased between 1992 and 1997, the market value of agricultural products sold increased to $312,950,000 in 1997, an increase of 69 percent (United States Department of Agriculture 1997). However, it is expected that non-farm employment will increase. All industry divisions except mining are expected to add jobs, with significant job growth in construction, manufacturing, and wholesale trade (San Luis Obispo Council of Governments 1999).

Education—The county has 43 elementary schools, 11 middle schools, and 9 high schools (*table 49*). Average enrollment per school is greatest at the high school level, which is the pattern across the assessment area and all counties. San Luis Obispo County serves slightly less than 1 percent of the assessment area's school enrollments. County schools have the 22nd highest enrollment overall, and they are 23rd in highest average enrollment per school. Students in 2nd through 11th grade were tested using the Stanford 9 at 56 of the county schools. San Luis Obispo County's ranking in academic performance for 1999 was a mean of 6.38 (based on the similarity index, www.cde.ca.gov), indicating higher-than-average performance than similar schools. Although 9 percent and 10.7 percent of schools in the county performed well below or below average compared to similar schools, 25 percent were well above average and 25 percent were above average.

Table 49—*Enrollment and number of schools, San Luis Obispo County, 1998-1999.*

Type of school	Total enrollment	Percent of total enrollment	Number of schools	Average enrollment/school
Elementary	18,334	52.0	43	426
Middle/Junior High	6,467	18.3	11	588
High School	10,447	29.6	9	1,161
Total	35,248	100.0	63	-

Source: California Department of Education 1998a

Health Care—The largest number of health care establishments in the county deliver ambulatory care services, followed by social assistance, and nursing and residential care (*fig. 69*). Hospitals represent a small proportion of the total care provided in the county. The county has eight hospitals, representing 2.0 percent of the assessment area's total hospitals (ahd.tool.net/list.php3/mstate=ca). Half (50.0 percent) of the hospitals are county, with the balance classified as for-profit (37.5 percent), or nonprofit (12.5 percent) facilities. For those hospitals with reported data (five hospitals), a total of 595 beds and 95,328 total patient days were recorded in 1999. The county ranked 13th in number of hospitals, in contrast to its 22nd place ranking in population.

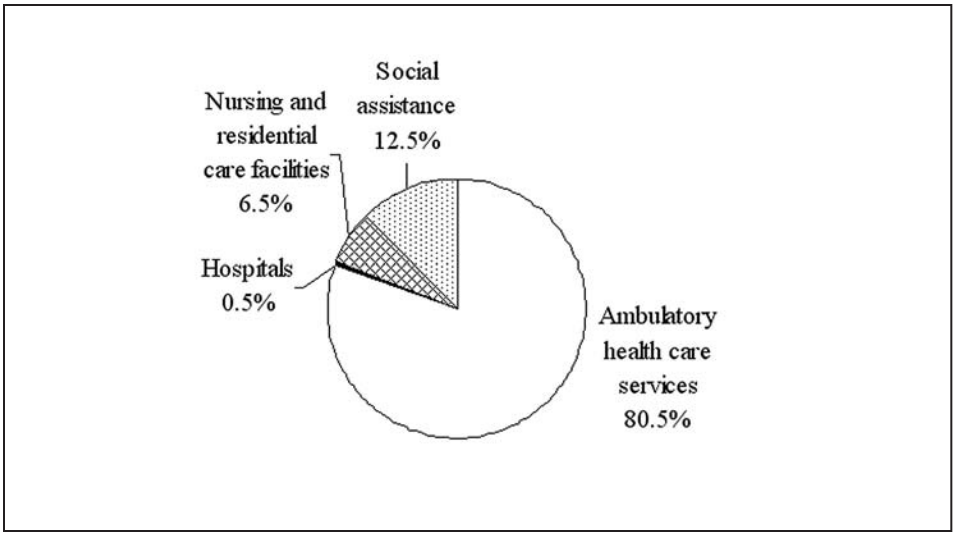


Figure 69—Health care and social assistance establishments, San Luis Obispo County, 1997.

Source: United States Census Bureau 1999a

Recreation and Tourism—Among the assessment area's 26 counties, San Luis Obispo ranked 20th in the 1997 economic census in accommodations and food services, and 21st in arts, entertainment, and recreation (United States Census Bureau 1999b, 1999c). A total of 674 accommodation and food-services establishments, with $382,512,000 in receipts, was reported. Arts, entertainment, and recreation services involved 67 establishments, with receipts totaling $33,474,000.

San Luis Obispo County includes 80 miles of coastline including San Simeon, Pismo Beach, and Morro Bay (www.sanluisobispocounty.com). Morro Bay is habitat to more than two dozen threatened and endangered species of birds, including the peregrine falcon. Hearst Castle, former home of publisher William Randolph Hearst and today a state historical monument, is of significant tourist interest.

Environmental Indicators

Water Quality—San Luis Obispo County crosses nine watersheds: Middle Kern-Upper Tehachapi-Grapevine, Upper Los Gatos-Avenal, Tulare-Buena Vista Lakes, Carrizo Plain, Estrella, Salinas, Central Coastal, Cuyama, and Santa Maria (www.epa.gov/surf3/surf98/county.html). (Watersheds frequently cross county boundaries. Therefore, some counties may include watersheds that are also located in other counties.) The Tulare-Buena Vista Lakes watershed was assigned a "6" by the EPA, indicating "more serious water quality problems and high vulnerability to pollution stressors." (According to the EPA's Index of Watershed Indicators procedures, a pollution stressor includes aquatic/wetland species at risk, toxic loads above limits, urban runoff potential, agricultural runoff potential, population change, hydrologic modification, estuarine pollution susceptibility, and atmospheric deposition.) The Salinas, Cuyama, and Santa Maria watersheds were assigned a "5," indicating "more serious water quality problems but low vulnerability to pollution stressors." The Middle Kern-Upper Tehachapi-Grapevine and Central Coastal watersheds were assigned a "3," indicating "less serious water quality problems and low vulnerability to pollution stressors." Data are not available for the Upper Los Gatos-Avenal, the Carrizo Plain, and Estrella watersheds.

Air Quality—San Luis Obispo County is 22nd in population out of the 26 counties and was below average in all emission types (16th or below in the 26 counties of the assessment area, except for sulfur oxides for which it ranked 5th; *appendix D*). Some emissions are projected for increases dependent upon emission type (*table 50*). Total organic gases, sulfur oxides, and particulates are expected to increase, according to the California Air Resources Board (1999). San Luis Obispo is currently

designated as a non-attainment area for ozone and fine particulate matter (PM10) (San Luis Obispo County Department of Planning and Building 2000).

Table 50—*1996 estimated and 2010 forecasted annual average emissions, San Luis Obispo County (cells do not add to column totals due to rounding error).*

Year	Emission category	Emission type[1]						
		TOG	ROG	CO	NOx	SOx	PM	PM10
1996	Stationary	10	7	1	4	14	2	1
	Area-Wide	11	7	41	1	0	47	27
	Mobile	15	14	130	28	1	1	1
	Natural	2	1	22	0	-	4	3
	Total	38	29	190	33	14	53	32
2010	Stationary	16	11	2	6	15	3	1
	Area-Wide	13	8	47	1	-	58	33
	Mobile	9	8	83	21	1	1	1
	Natural	2	1	22	0	-	4	3
	Total	40	28	150	28	16	65	39

Source: California Air Resources Board 1999

[1] TOG: total organic gases; ROG: reactive organic gases; CO: carbon monoxide; NOx: nitrogen oxides; SOx: sulfur oxides; PM: particulate matter; PM10: particulate matter less than or equal to 10 microns (*appendix D*).

Implications

San Luis Obispo and the neighboring Santa Cruz County are similar in size, projected growth, and projected racial/ethnic diversity. However, San Luis Obispo County is unique in that it is projected to remain at least 70 percent White by 2040. This is quite different from other counties in the region and California where projections are as high as 70 percent Hispanic by 2040 (e.g., Monterey County).

A summary of regulatory restrictions affecting growth shows that water availability and water quality are the key factors affecting growth in the San Luis Obispo region (San Luis Obispo Council of Governments 1999). In addition to environmental constraints that can affect growth, San Luis Obispo City and County have a history of environmentalism and contain a university with a philosophy of community outreach and involvement. These traditions have influenced debates about growth in the past and are likely to shape future debates about growth in the county.

To many, the coastline in the county represents what most of coastal California used to be like. Traveling through the county is like a "step back in time." The conflict between those who want to preserve the open space and natural amenities so essential to tourism and those who want to develop some of those natural areas to build hotels, golf courses, and shopping areas plays out in land-use battles. For example, the Hearst family proposes to develop the San Simeon coastline, while the California Coastal Commission (and environmentalists) argues for preservation of the area. Similar to all Central Coast counties, San Luis Obispo is faced with the choice of whether to preserve the natural beauty of the area that has attracted so many, or to allow more intense development that may irrevocably change these natural amenities.

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Santa Barbara County

- A search for good health shaped urban development and distributed populations by wealth in the county.
- The county was the site of a pivotal environmental disaster in 1969—the Santa Barbara Oil Spill.
- The University of California, Santa Barbara (UCSB) and Vandenberg Air Force Base are the largest employers in the county.

History

According to the First National Trust and Savings Bank of Santa Barbara (1948), the first inhabitants of the area were the Canaliño Indians (people of the Channel). Their original tribal name is Chumash (O'Neill 1939). The Chumash, along with the Gabrieliño people of this coastal area, had a sophisticated subsistence strategy using bountiful local resources including oil tars that were used to seal their boats, allowing wider fishing grounds that included the Channel Islands (Molotch and others 1996).

Cabrillo was the first explorer to enter the Santa Barbara Channel in 1542, visiting the four Channel Islands offshore—Anacapa, Santa Cruz, Santa Rosa, and San Miguel (First National Trust and Savings Bank of Santa Barbara 1948). The next expedition to the area was one led by Sebastian Vizcaíno in 1602, which mapped the Channel and named the Indian village "Santa Barbara" after the patron saint of the day of discovery (Selover 1915). More than a century and a half passed before the arrival of the next Europeans. The next expedition to enter the area was led by Captain Gaspar de Portolá who came with Father Junipero Serra and Jose Ortega in 1769. They founded the Royal Presidio of Santa Barbara in 1782 as a military outpost to protect the territory from the encroachment of other nations, particularly England and Russia. Mission Santa Barbara was established in 1786. This mission is known as the "Queen of the Missions" because it is the largest of the Franciscan missions.

Cattle ranching was a big business in Santa Barbara County (*fig. 70*). In the 1830s, the Spanish made money in hides and tallow, but after the Gold Rush, beef was the major commodity. However, droughts in the 1860s spurred the diversification of the economy away from cattle as its sole industry (First National Trust and Savings Bank of Santa Barbara 1948). Attention began to turn toward agriculture. Pasture first gave way to the dry farming of grain, beans, and potatoes. Then with water, fruit and vegetable farming dominated. The major crops in Santa Barbara were walnuts, flower seed, beans, and lemons. Oil was first struck in 1893 (Selover 1915). In 1928, one of the richest oil fields was discovered (First National Trust and Savings Bank of Santa Barbara 1948). Until the arrival of the Southern Pacific Railroad in Santa Barbara from Los Angeles in 1887, the area was dependent upon stage lines and uncertain connections by sea (Selover 1915). After the establishment of the railroad connection, the city of Santa Barbara doubled in size (Selover 1915). Many easterners came to Santa Barbara for health reasons and the area gained its reputation as a resort community.

According to Molotch and others (1996), during the period between 1919 and 1945, those with great wealth impacted the region through gifts and endowments

they provided. The Peabody family (Arrow shirts) and the Billings family (University of Chicago hospitals) purchased coastal land in the east beach area of Santa Barbara, which kept it from being developed until the city could purchase it intact at a later date. The Cudahy family (Chicago meat) built and furnished Our Lady of Mount Carmel Church for local Catholics, and two other Chicago meat families—Armour and Swift—played roles in local charities and institutions. Max Fleischmann (yeast) paid most of the costs to develop the city's breakwater so that he could dock his private yacht. Hollywood figures such as Fatty Arbuckle and Charlie Chaplin adopted Santa Barbara as a "getaway." Past presidents of institutions like the Massachusetts Institute of Technology and corporations like Phelps-Dodge, Union Carbide also played civic roles.

The establishment of the UCSB campus led to the largest single growth spurt (the late 1960s) in the history of the county (Molotch and others 1996).

The oil spill at the Union Oil platform in the Channel in 1969 caused a total of 40 miles of beaches to be covered with tar at various times over the ensuing weeks and months after the spill. Clean-up efforts were tedious and primitive as workers covered the beaches with straw to soak up the oil, only to be undone the next day with new incoming waves of oil. Tourism in 1969 was down by 20 percent. Although it is difficult to know what proportion of loss was caused by the spill,

Figure 70—Santa Barbara County is north of Los Angeles on the coastline (shaded area).

Source: 50 Individual States—Counties 1995

local opinion was that the long-term threat to tourism was significant (Molotch and others 1996).

Santa Barbara County Today

Sociodemographic Characteristics

Projected Population—DOF and Santa Barbara County Association of Governments (SBCAG) calculated population projections for Santa Barbara County (*table 51*). An increasing population is expected through the forecast period, though the amount of that increase differs depending on the source. DOF projections are higher than SBCAG's at most points in the forecast period, though lower for 2000. Santa Barbara County population growth may exceed what can be accommodated by building out today's urban areas, given their current zoning (Santa Barbara County Planning and Development 2000).

Ethnic and Racial Diversity—In 1990 and 2000, Whites were the majority in the county (*table 52*). However, the Hispanic population increased from more than one-quarter to more than one-third of the population.

Table 51—*Population projections, Santa Barbara County, 1990-2040.*

Source	1990	1995	2000	2005	2010	2015	2020	2030	2040
U.S. Census	369,608[1]	-	399,347	-	-	-	-	-	-
DOF	370,893[2]	-	412,071	-	468,457	-	552,846	658,223	779,247
SBCAG	369,608	394,165	416,214	437,398	457,441	479,321	-	-	-

Source: United States Census Bureau 1990a and 2000, State of California Department of Finance 1998, Santa Barbara County Association of Governments 1994

[1] Data from April 1.

[2] Data from July 1.

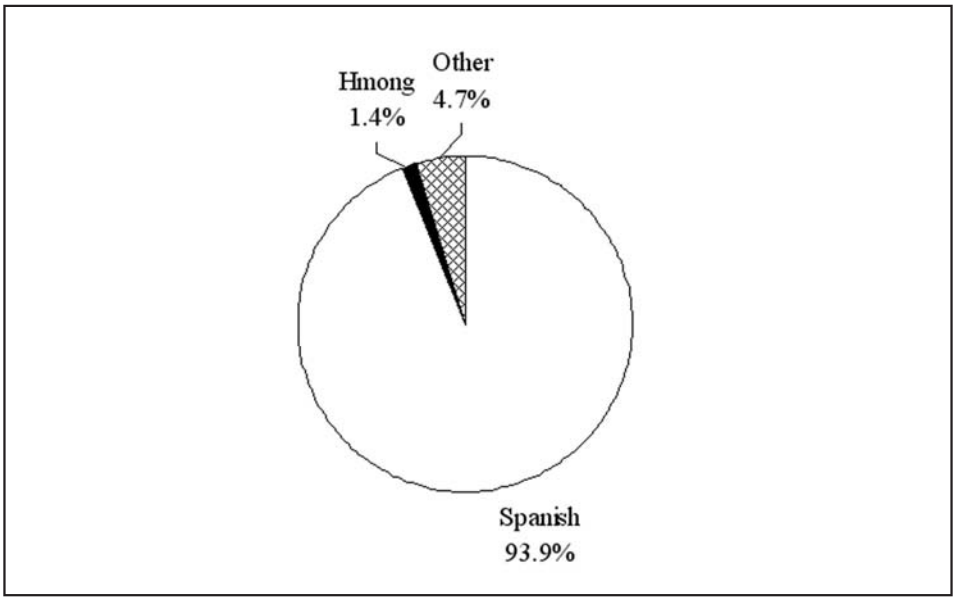
Table 52—*1990 and 2000 population, Santa Barbara County.*

	1990	2000
	Percent	
Non-Hispanic White	66.1	56.9
Hispanic all races	26.6	34.2
Non-Hispanic Black	2.5	2.1
Non-Hispanic Asian	4.1	4.1
Non-Hispanic American Indian	0.6	0.5
Non-Hispanic other	0.2	0.1
Non-Hispanic two or more races	N/A	2.1

Source: United States Census Bureau 1990a, 2000

In 1990, 16.9 percent of the county's population was foreign-born. Slightly more than one-fourth (25.3 percent) of Santa Barbara County residents spoke a language other than English at home. Of those, more than three-fourths (76.0 percent) spoke Spanish; another 24.0 percent spoke a language other than English or Spanish (United States Census Bureau 1990b). The city and county of Santa Barbara have a number of residents with a Spanish heritage. Hispanics play important economic roles in the county, and both the agricultural and tourism sectors draw heavily on their labor (Molotch and others 1996).

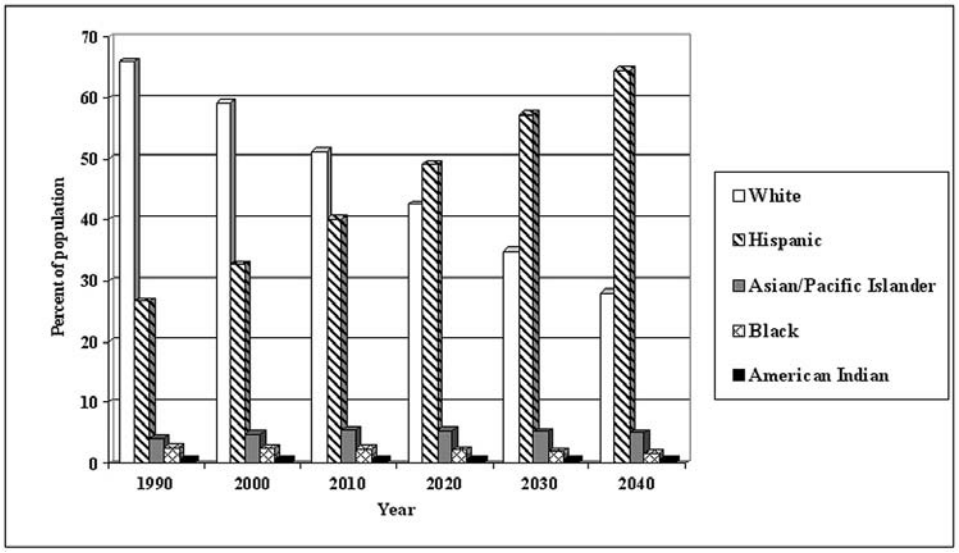
Linguistic diversity is also reflected within the schools in the region. The majority of LEP students in Santa Barbara County speak Spanish, Hmong, or an assortment of other languages—mirroring the languages spoken at home (*fig. 71*). In 1997-98, 27.1 percent of Santa Barbara County's public school students were LEP.



Source: California Department of Education 1998b

Figure 71—Limited-English-Proficient (LEP) students in Santa Barbara County public school districts, by language, 1997-1998.

Projected Ethnic and Racial Diversity—In addition to the increase in overall population in Santa Barbara County, a decrease in the proportion of Whites as a proportion of the population and a corresponding increase among Hispanics are projected (*fig. 72*). Much smaller changes are expected among the Asian, Black, and American Indian populations by 2040.



Source: State of California Department of Finance 1998

Figure 72—Racial and ethnic diversity trends for Santa Barbara County.

The proportion of Whites is expected to decrease by about 38 percent through the forecast period, while the Hispanic population is expected to increase by the same amount *(table 53*). In 2020 Hispanics will be the majority ethnic/racial group. Though Asians are projected to increase as a proportion of the population to 2010, their numbers then decrease for a cumulative percent change of less than 1 percent. Blacks are forecasted for a marginal decline in their proportion of the population. The proportion of American Indians remains small and relatively stable through 2040.

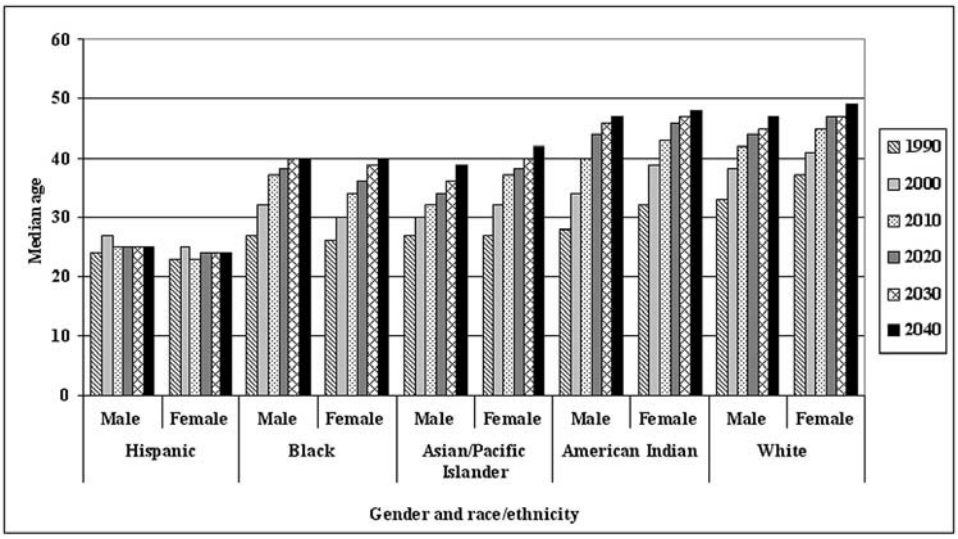
Table 53—*Percent race/ethnicity and percent change in Santa Barbara County, 1990-2040.*

Racial/ethnic group	1990	2000	2010	2020	2030	2040	Cumlative percent change
	Year						
White	66.06 -	59.26 (-6.79)	51.25 (-8.01)	42.59 (-8.66)	34.86 (-7.73)	28.08 (-6.78)	-37.97
Hispanic	26.72 -	32.69 (5.97)	40.19 (7.50)	49.13 (8.93)	57.31 (8.18)	64.64 (7.34)	37.92
Asian/Pacific Islander	4.09 -	4.91 (0.81)	5.51 (0.60)	5.39 (-0.12)	5.21 (-0.18)	4.92 (-0.28)	0.83
Black	2.55 -	2.50 (-0.05)	2.38 (-0.12)	2.19 (-0.18)	1.93 (-0.26)	1.69 (-0.25)	-0.86
American Indian	0.58 -	0.64 (0.05)	0.67 (0.03)	0.71 (0.04)	0.69 (-0.01)	0.66 (-0.03)	0.08

Source: State of California Department of Finance 1998

Along with projected changes in race and ethnicity, changes in the area population's age are projected. Projected median age for Santa Barbara County residents varies by race/ethnicity and gender (*fig. 73*). American Indians have the steepest increase in median age between 1990 and 2040 (from 30 to 47.5). Blacks, Asians, and Whites have projected increases as well, with Whites having the highest projected median age for 2040 (from 26.5 to 40, 27 to 40.5, and 35 to 48, respectively). Hispanics have a relatively young age structure across the forecast period (median age from 23.5 to 24.5). Santa Barbara County has a bimodal age distribution—the presence of a university and other colleges and the tourist industry attract a large number of young people to the area. Retirees are also drawn to the area (Molotch and others 1996).

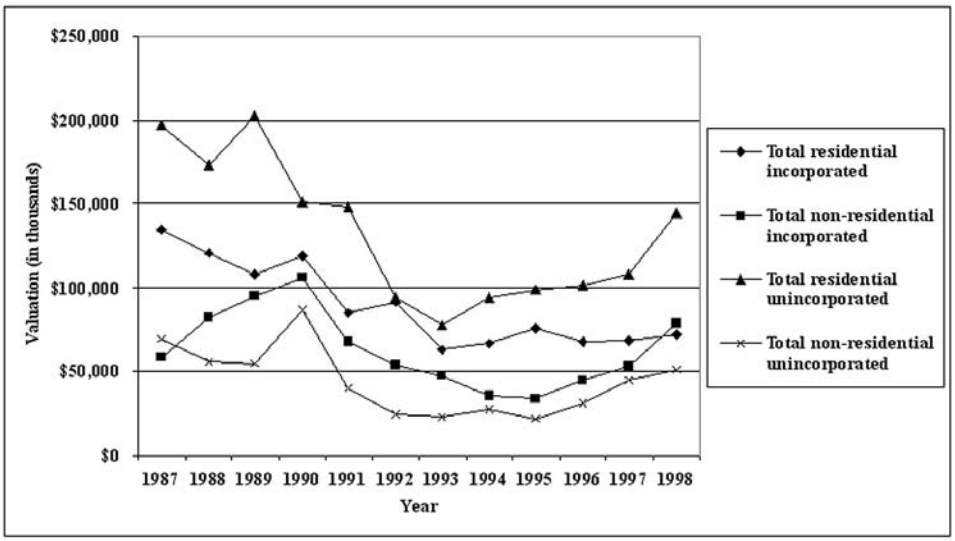
Figure 73—Median age by gender and race/ethnicity, Santa Barbara County, 1990-2040.



Source: State of California Department of Finance 1998

Development and Real Estate

Building trends in Santa Barbara County from 1987 to 1998 reveal that construction declined during the recession, though post-recession recovery was evident (*fig. 74*). Residential construction in unincorporated areas was the largest share of construction valuation over the 10-year period.



Source: Construction Industry Research Board 1988-1999

Figure 74—Building trends, Santa Barbara County, in 1998 dollars, 1987-1998.

In 1990, Santa Barbara County had 129,802 households and 138,149 housing units. The vast majority (94 percent) of housing units were occupied; 6 percent were vacant (United States Census Bureau 1990a). Since 1990, local surveys have shown that the vacancy rate is substantially less than 6 percent (Bresolin 2001). Of the occupied housing units, slightly more than half (54.7 percent) were owner occupied; 45.3 percent were renter-occupied (United States Census Bureau 1990a).

The median value of owner-occupied housing units in 1990 was $250,000, and the median rent was $645 per month. Housing costs in Santa Barbara County, especially along the coast, have typically been higher than the rest of the State and the nation (Molotch and others 1996). The median home price in southern Santa Barbara County is $540,000 (Johnson 2000). As a result, either a higher proportion of residents' income is used to pay for shelter or residents live under more crowded conditions than their counterparts elsewhere.

Quality of Life Indicators

Transportation, Commuting, and Employment—In 1990, there were 179,258 workers age 16 and older in Santa Barbara County, and an average of 1.9 vehicles per household. Few residents worked outside of the county (5.7 percent). The majority drove to work alone, though a few carpooled or worked at home (*fig. 75*). Very few used public transportation. The average travel time to work was 17.6 minutes, the lowest of the four counties in the Central Coast region.

According to Molotch and others (1996), Santa Barbara County has had two divergent patterns that are geographically based. The north county has traditionally been agriculturally and ranching oriented. While land in farms and the number of full-time farms decreased between 1992 and 1997, the market value of agricultural products sold increased to $659,741,000 in 1997, an increase of 69 percent (United States Department of Agriculture 1997). The top five commodities are vegetables, fruits and berries, nursery and greenhouse crops, cattle and calves, and dairy products (United States Department of Agriculture 1997).

Oil has also played a dominant economic and social role in the north. As in the past, the north county today is more receptive to industrial development than south county. The south county has a number of coastal communities and, as a result, acquired an affluent tourist and retirement element beginning in the late 19th

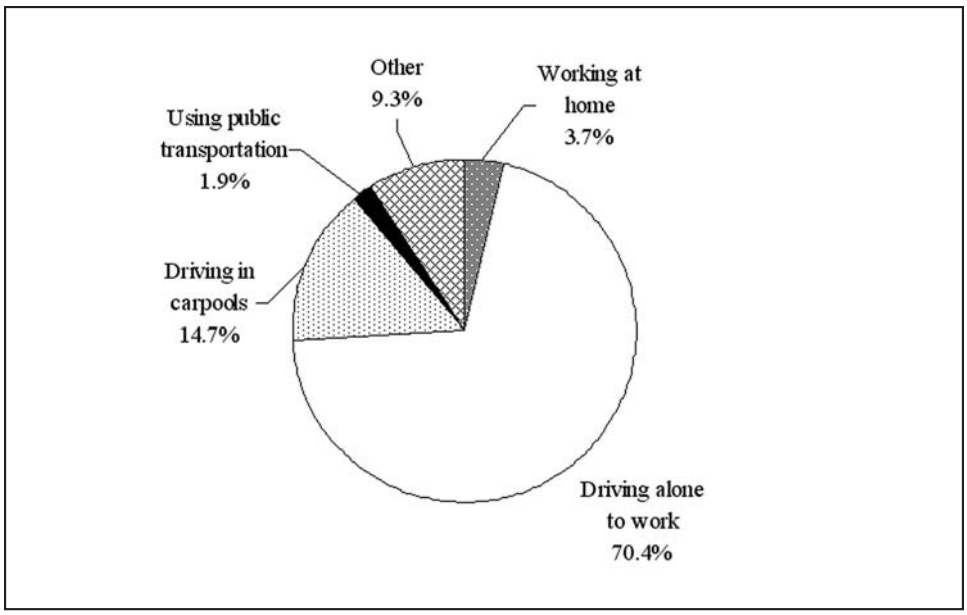


Figure 75—Commuting patterns, workers 16 and older, Santa Barbara County, 1990.

Source: United States Census Bureau 1990b

century. These communities have influenced the social and political atmosphere of the area, with the result that there is more resistance to industrial development in that part of the county than in the north. The south coast area historically has been more populated than the north and has become the governmental, economic, and cultural center of the county. While Santa Barbara is still the most populous urban center, the unincorporated area of Goleta is approaching the same population, and northern cities such as Santa Maria and Buellton are growing the fastest at nearly 2 percent per year (Santa Barbara County Planning and Development 2000). Housing is generally less expensive in the north, however the higher paying jobs are primarily in south county. While the county does not have a commuting problem compared with other counties in the region, commuting has increased in the past 10 years and traffic has become a significant community concern in some areas (Ledbetter 2001).

According to Molotch and others (1996), the county has consistently had fewer manufacturing jobs than the State as a whole. Despite the social and political influence of oil in the county, as an employment sector, it has not been a significant source of employment in the county. Employment in mining and drilling declined to slightly more than 1,000 workers by 1970. Military bases in the north county, including Vandenberg Air Force Base, have had economic impacts in the region. The base employed 21,000 people by 1962. Because a number of base employees lived off of the base, construction boomed between 1960 and 1965 in the region surrounding Santa Maria. However, the cyclical rise and fall in defense, oil, and farm prosperity have resulted in attitudes more favorable to industrial development in the north than in the south county.

Despite a history of wealthy residents re-locating to Santa Barbara, the median incomes are not that different from the rest of the county or country. Some smaller north county towns have higher median household incomes than Santa Barbara (Molotch and others 1996). UCSB and Vandenberg Air Force Base are the largest employers in the county (Molotch and others 1996).

Santa Barbara County's traditional economy has been centered in ranching, tourism, and defense. However, new industries in the area include high-tech businesses from medical care to software firms. The number of high-tech firms in the Santa Barbara area has doubled from 300 to 600 since 1997 (Johnson 2000). UCSB has been important to the development of dot-com companies. The university

was one of the first four sites of the Advanced Research Projects Agency Network of the Department of Defense because of their expertise in mathematics (Johnson 2000). San Francisco and Los Angeles still rank first and fourth, respectively in the number of domain names per business, but Santa Barbara is not far behind. San Francisco has 1,368 domain names per 1,000 businesses, Los Angeles has 992, and Santa Barbara has 733 (Johnson 2000).

Education—Santa Barbara County has 70 elementary schools, 13 middle schools, and 10 high schools (*table 54*). Average enrollment per school is greatest at the high school level, which is the pattern across the assessment area and all counties. Santa Barbara County serves slightly more than 1 percent of the assessment area's school enrollments. County schools have the 18th highest enrollment overall, and they are 17th in highest average enrollment per school. Students in 2nd through 11th grade were tested using the Stanford 9 at 84 of the county schools. Santa Barbara County's ranking in academic performance for 1999 was a mean of 6.82 out of 10 (based on the similarity index, www.cde.ca.gov), indicating higher-than-average performance than similar schools. Although 6 percent and 9.6 percent of schools in the county performed well below or below average compared to similar schools, 29.7 percent were well above average and 25 percent were above average.

Table 54—*Enrollment and number of schools, Santa Barbara County, 1998-1999.*

Type of school	Total enrollment	Percent of total enrollment	Number of schools	Average enrollment/ school
Elementary	36,164	57.6	70	517
Middle/Junior High	10,118	16.1	13	778
High School	16,526	26.3	10	1,653
Total	62,808	100.0	93	-

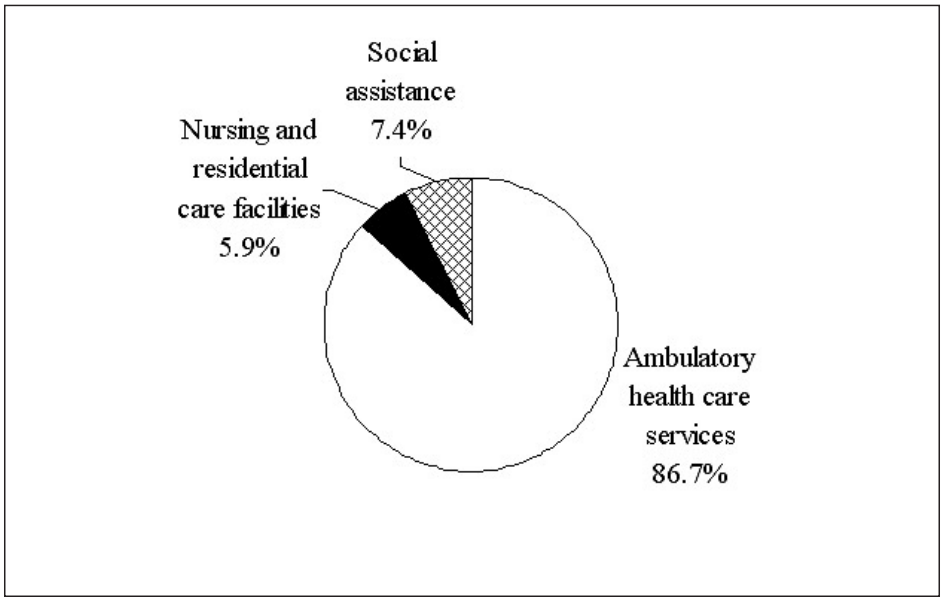
Source: California Department of Education 1998a

Health Care—The largest number of health care establishments in the county deliver ambulatory health care services, followed by social assistance, and nursing and residential care (*fig. 76*). There are no hospitals in Santa Barbara County according to the U.S. Census Bureau. However, the county has eight hospitals, representing 2.0 percent of the assessment area's total hospitals (ahd.tool.net/list.php3/mstate=ca). The majority (87.5 percent) are nonprofit, with the balance classified as county (12.5 percent) facilities. For those hospitals with reported data (eight hospitals), a total of 1,563 beds and 310,687 total patient days were recorded in 1999. The county ranked 13th in number of hospitals, in comparison to its 18th place ranking in population.

Recreation and Tourism—Among the assessment area's 26 counties, Santa Barbara ranked 15th in the 1997 economic census in accommodations and food services, and 14th in arts, entertainment, and recreation (United States Census Bureau 1999b, 1999c). A total of 952 accommodation and food-services establishments, with $633,069,000 in receipts, was reported. Arts, entertainment, and recreation services involved 129 establishments, with receipts totaling $128,465,000.

Santa Barbara County has a number of spots of interest to recreationists and tourists, including the Santa Barbara Museum of Art, various beaches along its 100 miles of coastline, sections of the Los Padres National Forest, and Solvang, a Danish community in the hills (www.santabarbaraca.com).

Figure 76—Health care and social assistance establishments, Santa Barbara County, 1997.



Source: United States Census Bureau 1999a

Environmental Indicators

Water Quality—Santa Barbara County crosses nine watersheds: San Antonio, Santa Ynez, Santa Barbara Coastal, Santa Barbara Channel Islands, Ventura, Santa Clara, San Pedro Channel Islands, Cuyama, and Santa Maria (www.epa.gov/surf3/surf98/county.html). (Watersheds frequently cross county boundaries. Therefore, some counties may include watersheds that are also located in other counties.) The Cuyama, Santa Maria, and Santa Barbara Coastal watersheds were assigned a "5" by the EPA, indicating "more serious water quality problems but low vulnerability to pollution stressors." (According to the EPA's Index of Watershed Indicators procedures, a pollution stressor includes aquatic/wetland species at risk, toxic loads above limits, urban runoff potential, agricultural runoff potential, population change, hydrologic modification, estuarine pollution susceptibility, and atmospheric deposition.) The Santa Ynez, Ventura, Santa Clara, and San Pedro Channel Islands watersheds were assigned a "3," indicating "less serious water quality problems and low vulnerability to pollution stressors." Data are not available for the San Antonio and the Santa Barbara Channel Islands watersheds.

Air Quality—Santa Barbara County has the 17th largest population of the 26 counties and is ranked 13th (total organic gases) or lower in emissions *(table 55*). Though most emissions types are projected for decreases, some increases in total organic gases and particulates (*appendix D*) are expected, according to the California Air Resources Board (1999).

Table 55—*1996 estimated and 2010 forecasted annual average emissions, Santa Barbara County (cells do not add to column totals due to rounding error).*

Year	Emission category	Emission type[1]						
		TOG	ROG	CO	NOx	SOx	PM	PM10
1996	Stationary	64	8	4	6	2	2	1
	Area-Wide	10	9	24	1	0	31	16
	Mobile	20	18	170	30	1	1	1
	Natural	69	19	31	0	-	5	4
	Total	160	54	230	37	2	39	23
2010	Stationary	77	11	5	7	2	2	1
	Area-Wide	11	9	22	1	-	35	18
	Mobile	9	8	94	21	1	1	1
	Natural	69	19	31	1	-	5	4
	Total	170	47	150	30	3	42	24

Source: California Air Resources Board 1999

[1] TOG: total organic gases; ROG: reactive organic gases; CO: carbon monoxide; NOx: nitrogen oxides; SOx: Sulfur Oxides; PM: particulate matter; PM10: particulate matter less than or equal to 10 microns (*appendix D*).

Implications

The fact that Santa Barbara County has the lowest commute times of any county in the region suggests that a majority of residents work within the county, perhaps enhancing a sense of place in the county. In fact, the city of Santa Barbara has a centralized downtown that serves to merge social groups, residential neighborhoods, and tourist areas (Molotch and others 1996). A large number of environmental organizations also exist in Santa Barbara County (Molotch and others 1996), suggesting a heightened awareness about the importance of protecting natural environment in the region.

Between 2010 and 2020, Hispanics are projected to become the majority in the county. In addition to increasing ethnic diversity, Santa Barbara County is expected to have a growing older population as well as a growing younger population. However, the younger population may leave the area to pursue opportunities elsewhere as housing becomes even scarcer (Bresolin 2001). Santa Barbara will face the same set of decisions as Monterey County: how to distribute public resources to accommodate the needs of different demographic groups.

The county of Santa Barbara has the highest incomes in the region and also the highest housing costs. There is no room to expand because the majority of land in the county is either National Forest (39 percent) or is devoted to large agricultural operations (38 percent). Another 9 percent of county land belongs to the military (Vandenberg Air Force Base) and other government entities (Santa Barbara County Planning and Development 2000). Given these land-use constraints, the county will have to be innovative in plans to accommodate future growth. Prime agricultural land will be developed, building will have to occur at higher densities, or the county can focus on developing underutilized infill sites (Santa Barbara County Planning and Development 2000).

Historically, Santa Barbara as the mid-way point between Los Angeles and San Francisco has not seen the population growth experienced by these larger cities. However, in the new high-tech economy, people can live farther away from urban centers and still conduct their business. Santa Barbara is posed to experience growth in this cyber age, as people are attracted to the area and choose to settle there.

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Santa Cruz County

- The county is home to the University of California, Santa Cruz (UCSC).
- The first redwood park is located in this county.
- Residents in Santa Cruz County have the longest commutes in the region.

History

According to Koch (1973), the first inhabitants of the area were the Costanoan Indians. There were 40 different tribelets who lived in the area between Big Sur and the Golden Gate of San Francisco. In an attempt to classify the Indians into a large group, the first explorers referred to the Indians as "Costeños" or "coast people." Descendants of these first Indian groups call themselves Ohlone (www.santacruzpl.org/history/spanish/ohlone.shtml). The coastal Indians lived by hunting, fishing, and gathering seeds and acorns.

The first Europeans to see the Santa Cruz area were with Portolá's expedition (*fig. 77*). This expedition arrived in Santa Cruz on the way north from Monterey. The beauty of the place inspired the soldiers to name the area "Santa Cruz" (Holy Cross). Because Santa Cruz was off the main route of travel along the chain of missions, the Mission Santa Cruz was not founded until 1794. Santa Cruz had the lowest Indian conversion rate of all the California missions. Yet the recruitment failures were outmatched by its growing importance as a supplier of timber and food for the mission and presidio system (www.santacruzpl.org/history/spanish/supply.shtml). The mission was prosperous, with more than 4,000 head of cattle, extensive vegetable gardens, and a grist mill. In 1845 and 1857 earthquakes damaged the mission, and by 1886, the mission was in such disrepair that the last remnants were dismantled. A replica of the mission was built in 1932.

Hills surrounding the city of Santa Cruz are marine in origin. This sedimentary geologic formation gave the area one of its earliest and most important industries: limestone. Beyond the hills are redwood trees that became the foundation of another early industry: lumber (Koch 1973). For 100 years lumbering was Santa Cruz County's largest business (www.santacruzpl.org/history/work/giants.html). The lumber industry served two purposes: 1) it supplied lumber for a growing California, and 2) clearing the forests enabled settlers to begin farming the land. The lumber boom lasted from the 1860s until the early 1900s. In the 1860s Santa Cruz County and San Mateo County furnished the major portion of lumber shipped to San Francisco (Koch 1973). In 1899, residents began to realize that the redwoods were being destroyed, and they appealed to the California State Legislature for

the creation of parks to protect the redwoods. As a result of their efforts, the first California redwood park was established; it is now known as Big Basin State Park (www.santacruzpl.org/history/work/giants.html).

Other economic activities in the county in the last century include supplying blasting powder for mining and railroad work (the California Powder Works from 1864-1914); apple-growing in the Pajaro Valley, which in 1909 produced and shipped more apples than any other place in the world; dairying; and winemaking, which boomed in the 1870s (www.santacruzpl.org/history). Santa Cruz County also had a number of tanneries that turned out sole and harness leather. Valleys in the county were cultivated to beans, flax, and grains. There were eight grist mills in Santa Cruz County in 1867 (Koch 1973).

In 1957, the University of California Regents authorized three new campuses, one of which was to be located in the five-county south-central coast area. In 1961, 2,000 acres for a campus were located, partly in the city of Santa Cruz and partly in unincorporated county area. In 1978, voters in the county concerned about growth enacted a growth management referendum to protect agricultural land, limit growth, and establish urban/rural boundaries (Deming 2001).

Figure 77—Santa Cruz County is south of San Francisco (shaded area).

Source: 50 Individual States—Counties 1995

In 1989, Santa Cruz County was hit by the 7.1-magnitude Loma Prieta earthquake. The earthquake was felt over an area of 400,000 square miles. Santa Cruz County was the hardest hit and had the highest number of homes damaged or destroyed. The California Office of Emergency Services estimated the damage in the county at $433 million (www.santacruzpl.org/history/facts/89quake.shtml).

Santa Cruz County Today

Sociodemographic Characteristics

Projected Population—DOF and AMBAG calculated population projections for Santa Cruz County (*table 56*). An increasing population is expected through the forecast period, though the amount of that increase differs according to the source. DOF's projections are higher than AMBAG's throughout the forecast period, peaking at a gap of 63,550 persons in 2020.

Table 56—*Population projections, Santa Cruz County, 1990-2040.*

Source	1990	1995	2000	2005	2010	2015	2020	2030	2040
U.S. Census	229,734[1]	-	255,602	-	-	-	-	-	-
DOF	230,341[2]	-	260,248	-	309,206	-	367,196	430,078	497,319
AMBAG	229,734	241,935	257,737	270,060	281,714	292,988	303,646	-	-

Source: United States Census Bureau 1990a and 2000, State of California Department of Finance 1998, Association of Monterey Bay Area Governments 1997

[1] Data from April 1.

[2] Data from July 1.

Ethnic and Racial Diversity—In 1990 and 2000, Whites were the majority in the county (*table 57*).

Table 57—*1990 and 2000 population, Santa Cruz County.*

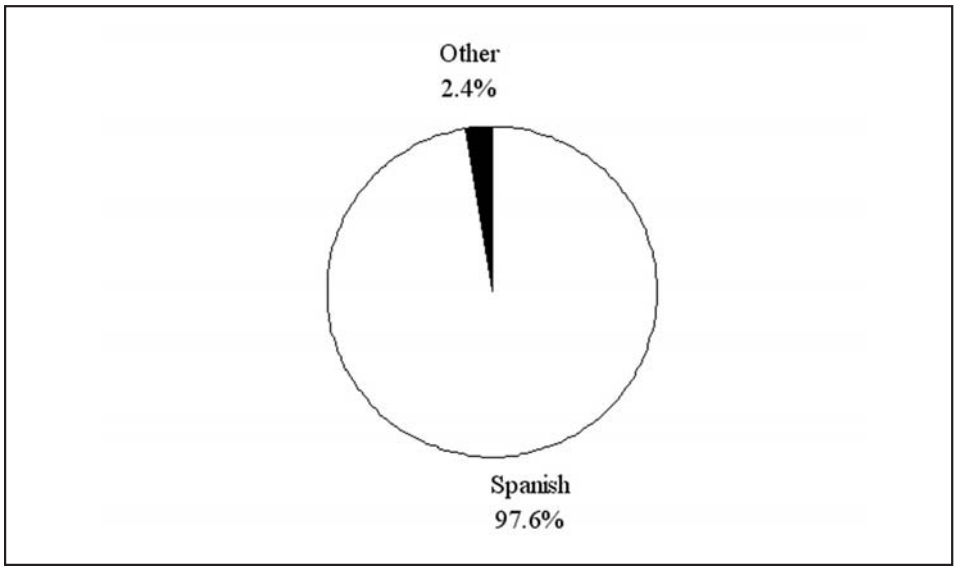
	1990	2000
	Percent	
Non-Hispanic White	74.5	65.5
Hispanic all races	20.4	26.8
Non-Hispanic Black	1.0	0.8
Non-Hispanic Asian	3.4	3.4
Non-Hispanic American Indian	0.6	0.5
Non-Hispanic other	0.2	0.3
Non-Hispanic two or more races	N/A	2.6

Source: United States Census Bureau 1990a, 2000

In 1990, 14 percent of the county's residents were foreign-born. More than one-fifth (21.2 percent) of residents age 5 and older spoke a language other than English at home. Of those, the vast majority (73.6 percent) spoke Spanish, another 26.4 percent spoke a language other than English or Spanish (United States Census Bureau 1990b).

Linguistic diversity is also reflected within the schools in the region. The majority of LEP students in Santa Cruz County public schools speak Spanish—mirroring the languages spoken at home (*fig. 78*). In 1997-98, 26.6 percent of Santa Cruz County's public school students were LEP.

Figure 78—Limited-English-Proficient (LEP) students in Santa Cruz County public school districts, by language, 1997-1998.

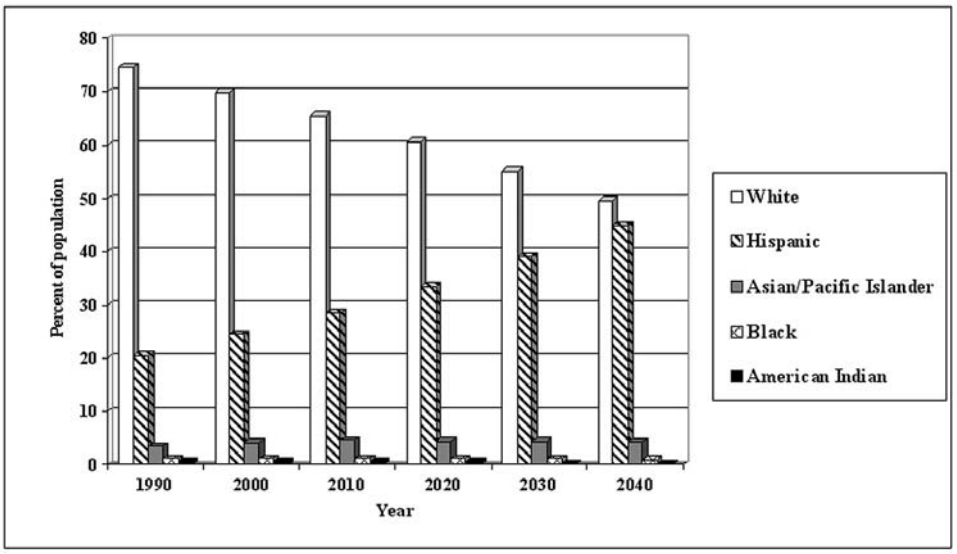


Source: California Department of Education 1998b

Projected Ethnic and Racial Diversity—In addition to the increase in overall population in Santa Cruz County, a decrease in Whites as a proportion of the population, and an increase among Hispanics is projected (*fig. 79*). Asians are projected to marginally increase as a proportion of the population, while American Indians and Blacks decrease slightly as a proportion of the population.

The proportion of Whites is expected to decrease by almost one-fourth through the forecast period, while Hispanics are expected to increase by almost the same amount (*table 58*). By 2040 no single ethnic group will represent a majority of the county's population.

Figure 79—Racial and ethnic diversity trends for Santa Cruz County.



Source: State of California Department of Finance 1998

Table 58—*Percent race/ethnicity and percent change in Santa Cruz County, 1990-2040.*

Racial/ethnic group	1990	2000	2010	2020	2030	2040	Cumulative percent change
	Year						
White	74.57 -	69.78 (-4.79)	65.52 (-4.26)	60.60 (-4.91)	55.20 (-5.40)	49.64 (-5.57)	-24.94
Hispanic	20.49 -	24.48 (3.99)	28.43 (3.95)	33.55 (5.12)	39.13 (5.58)	44.94 (5.81)	24.45
Asian/Pacific Islander	3.35 -	4.11 (0.75)	4.48 (0.37)	4.37 (-0.10)	4.33 (-0.05)	4.22 (-0.11)	0.86
Black	1.02 -	1.10 (0.09)	1.13 (0.02)	1.11 (-0.02)	1.05 (-0.06)	0.99 (-0.06)	-0.03
American Indian	0.57 -	0.53 (-0.04)	0.45 (-0.08)	0.37 (-0.08)	0.29 (-0.08)	0.22 (-0.07)	-0.35

Source: State of California Department of Finance 1998

Along with projected changes in race and ethnicity, changes in the area population's age are projected. Projected median age for Santa Cruz County residents varies by race/ethnicity and gender. The steepest increase for the Central Coast region, and for county residents' median age, is among the American Indian population (from 30.5 to 60.5) (*fig. 80*). Lesser increases are projected among Blacks, Asians, and Whites (from 24.5 to 41, 29.5 to 42, and 35 to 48.5, respectively). Whites are expected to have the second highest median age among ethnic/racial groups in this county in 2040. Hispanics have a relatively young age structure across the forecast period (from 23 to 23.5).

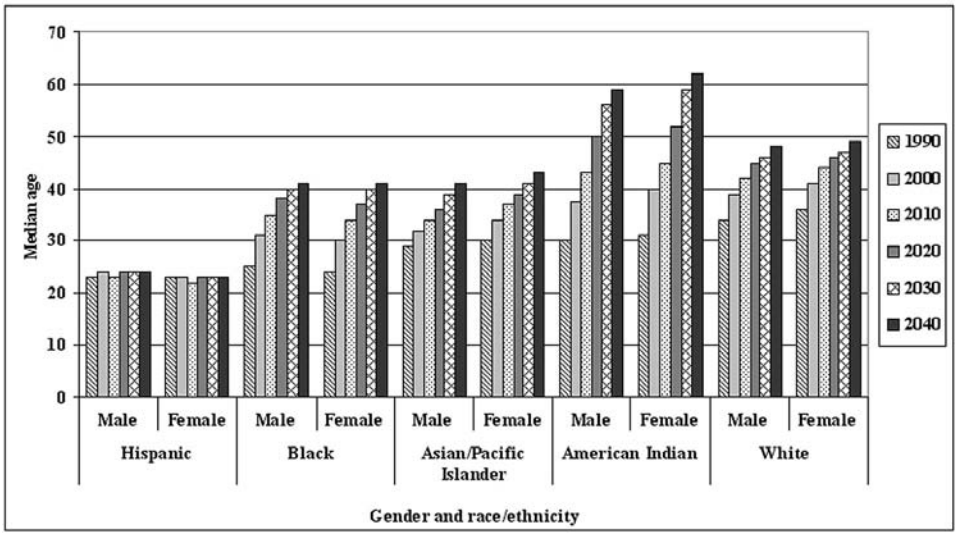


Figure 80—Median age by gender and race/ethnicity, Santa Cruz County, 1990-2040.

Source: State of California Department of Finance 1998

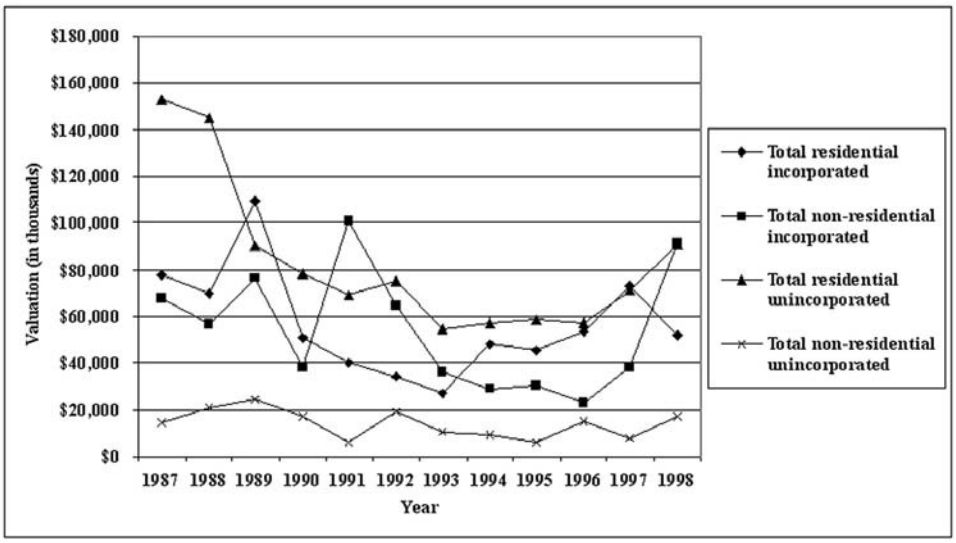
Development and Real Estate

Building trends in Santa Cruz County from 1987 to 1998 reveal that residential construction decreased during the recession at the beginning of the 1990s and post-recession recovery was slow (*fig. 81*). Non-residential construction in incorporated areas fluctuated widely.

In 1990, Santa Cruz County had 83,566 households and 91,878 housing units. The vast majority (91 percent) of housing units were occupied, 9 percent were vacant (United States Census Bureau 1990a). Of the occupied housing units, the majority (59.9 percent) were owner-occupied, 40.1 percent were renter-occupied (United States Census Bureau 1990a).

The median value of owner-occupied housing units in 1990 was $256,100, and the median rent was $713 per month. Santa Cruz County is the second least affordable housing market in the nation after the San Francisco Bay Area (United Way of Santa Cruz County 2000). In a survey of residents, 50 percent of respondents indicated that they pay 50 percent of their take-home pay for rent and one-third indicated that 75 percent of their take-home pay goes to rent. This has caused more than half of these respondents to share housing with other families (United Way of Santa Cruz County 2000).

Figure 81—Building trends, Santa Cruz County, in 1998 dollars, 1987-1998.



Source: Construction Industry Research Board 1988-1999

Quality of Life Indicators

Transportation, Commuting, and Employment—In 1990, there were 115,199 workers age 16 and older in Santa Cruz County, and an average of 1.9 vehicles per household. Slightly more than one-fifth (22.2 percent) of residents worked outside the county. The majority (70.4 percent) drove to work alone, although a few carpooled to work (14.5 percent) *(fig. 82)*. Very few worked at home or used public transportation. The average travel time to work was 24.3 minutes, the longest commute for the Central Coast region.

The major industries in Santa Cruz County are information-based companies, tourism, and agriculture. The top three employers in the county are UCSC, the County of Santa Cruz, and Seagate Technology, a maker of disc drives

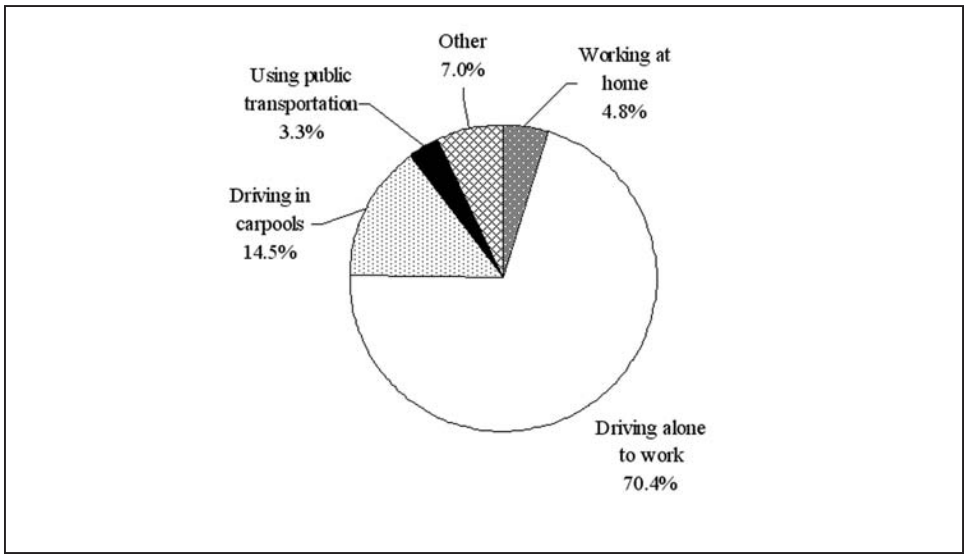


Figure 82—Commuting patterns, workers 16 and older, Santa Cruz County, 1990.

Source: United States Census Bureau 1990b

(www.co.santa-cruz.ca.us/cao/econprof.htm). While growth in the economy has slowed during 2000, retail, tourism, agriculture, and technology are likely to remain strong sectors. However, of concern is the growing divide between low-wage and high-wage employment that is exacerbated by high housing costs. Jobs were lost in the manufacturing sector, which has traditionally provided a step up for lower income individuals (United Way of Santa Cruz County 2000). Projections show the most occupational growth in high-compensation computer industry jobs and low-compensation retail service jobs (United Way of Santa Cruz County 2000).

Agricultural production remains strong in the county with strawberries, raspberries, and bushberries the top cash crops (Santa Cruz County Agricultural Commission 1999). Other top products are iceberg lettuce, landscape plants, and apples. Land in farms, the average size of farms, and the number of full-time farms increased in the county between 1992 and 1997. Likewise, the market value of agricultural products sold increased to $247,815,000 in 1997, an increase of 2 percent (United States Department of Agriculture 1997).

Education—Santa Cruz County has 39 elementary schools, 12 middle schools and 7 high schools (*table 59*). Average enrollment per school is greatest at the high school level, which is the pattern across the assessment area and all counties. Santa Cruz County serves slightly less than 1 percent of the assessment area's school enrollments. County schools have the 21st highest enrollment overall, and they are 19th in highest average enrollment per school. Students in 2nd through 11th grade were tested using the Stanford 9 at 56 of the county schools. Santa Cruz County's ranking in academic performance for 1999 was a mean of 4.63 out of 10 (based on the similarity index, www.cde.ca.gov), indicating lower-than-average performance than similar schools. Although 25 percent and 26.8 percent of schools in the county performed well below or below average compared to similar schools, 5.4 percent were well above average and 21.4 percent were above average.

Table 59—*Enrollment and number of schools, Santa Cruz County, 1998-1999.*

Type of school	Total enrollment	Percent of total enrollment	Number of schools	Average enrollment/school
Elementary	20,441	53.0	39	524
Middle/Junior High	7,586	19.7	12	632
High School	10,540	27.3	7	1,506
Total	38,567	100.0	58	-

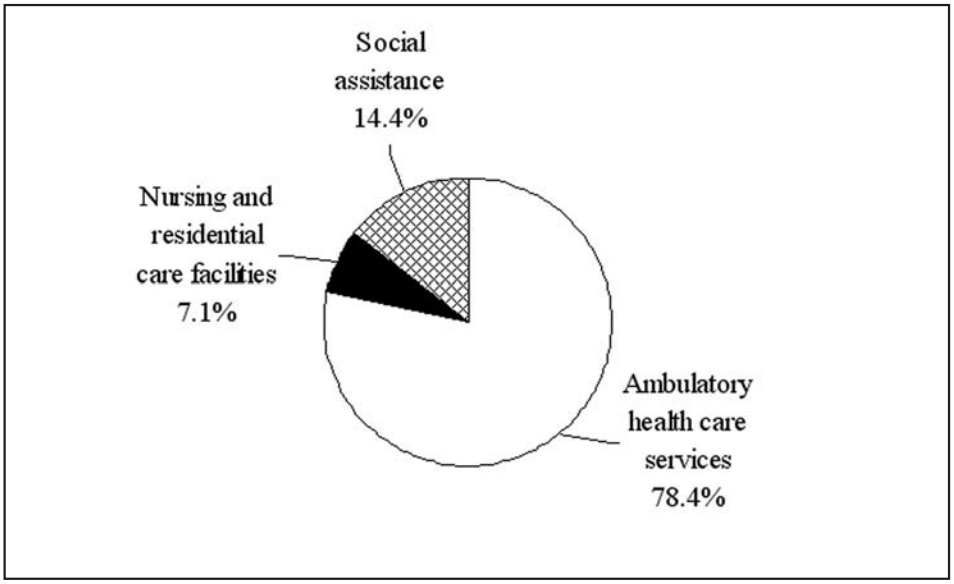
Source: California Department of Education 1998a

Health Care—The largest number of health care establishments in the county deliver ambulatory health care services, followed by social assistance, and nursing and residential care (*fig. 83*). There are no hospitals in Santa Cruz County, according to the U.S. Census Bureau. However, the county has three hospitals, representing 0.8 percent of the assessment area's total hospitals (ahd.tool.net/list.php3/mstate=ca). All three of the hospitals are nonprofit facilities. For those hospitals with reported data (two hospitals), a total of 394 beds and 79,067 total patient days were recorded in 1999. The county ranked 22nd in number of hospitals, comparable to its 20th place ranking in population.

Recreation and Tourism—Among the assessment area's 26 counties, Santa Cruz ranked 21st in the 1997 economic census in accommodations and food services, and 20th in arts, entertainment, and recreation (United States Census Bureau 1999b, 1999c). A total of 591 accommodation and food-services establishments, with $305,496,000 in receipts, was reported. Arts, entertainment, and recreation services involved 74 establishments, with receipts totaling $68,022,000.

Santa Cruz County offers sites of interest to recreationists and tourists, including the Año Nuevo State Reserve, a 4,000-acre reserve for northern elephant seals (www.parks.ca.gov). The Big Basin Redwoods State Park is California's oldest State Park, consisting of over 18,000 acres of old growth and recovering redwoods, as well as mixed conifer, oak, chaparral, and riparian habitats

Figure 83—Health care and social assistance establishments, Santa Cruz County, 1997.



Source: United States Census Bureau 1999a

(members.aol.com/bbrsp). Coastal interests include the Beach Boardwalk, with two national landmarks (the Looff Carousel and the Giant Dipper roller coaster) (www.beachboardwalk.com).

Environmental Indicators

Water Quality—Santa Cruz County crosses five watersheds: Coyote, Tomales-Drake Bays, Pajaro, Carmel, and San Lorenzo-Soquel (www.epa.gov/surf3/surf98/county.html). (Watersheds frequently cross county boundaries. Therefore, some counties may include watersheds that are also located in other counties.) The Coyote, Tomales-Drake Bays, Pajaro, and Carmel watersheds were assigned a "5" by the EPA, indicating "more serious water quality problems but low vulnerability to pollution stressors." (According to the EPA's Index of Watershed Indicators procedures, a pollution stressor includes aquatic/wetland species at risk, toxic loads above limits, urban runoff potential, agricultural runoff potential, population change, hydrologic modification, estuarine pollution susceptibility, and atmospheric deposition.) The San Lorenzo-Soquel watershed was assigned a "3," indicating "less serious water quality problems and low vulnerability to pollution stressors."

Air Quality—Santa Cruz County has the 20th largest population of the 26 counties and has one of the lowest emission patterns across types for the counties in the assessment area, ranking 20th or below for each type (*table 60*). Although most emission types are projected for decreases, total organic gases and particulates (*appendix D*) are expected to increase, according to the California Air Resources Board (1999).

Table 60—*1996 estimated and 2010 forecasted annual average emissions, Santa Cruz County (cells do not add to column totals due to rounding error).*

Year	Emission category	Emission type[1]						
		TOG	ROG	CO	NOx	SOx	PM	PM10
1996	Stationary	78	6	15	4	1	2	1
	Area-Wide	9	7	24	1	0	21	12
	Mobile	12	11	99	12	0	0	0
	Natural	0	0	1	0	-	0	0
	Total	99	24	140	17	1	23	13
2010	Stationary	92	8	17	5	1	3	1
	Area-Wide	9	7	21	1	0	24	14
	Mobile	4	4	47	7	0	0	0
	Natural	0	-	1	-	-	0	0
	Total	110	19	86	13	1	27	15

Source: California Air Resources Board 1999

[1] TOG: total organic gases; ROG: reactive organic gases; CO: carbon monoxide; NOx: nitrogen oxides; SOx: sulfur oxides; PM: particulate matter; PM10: particulate matter less than or equal to 10 microns (*appendix D*).

Implications

Santa Cruz borders Santa Clara County and is within commuting distance from the Silicon Valley, which may explain why Santa Cruz County has the longest commute times in the Central Coast region. Santa Cruz County contains a mix of those who work in high-tech jobs as well as those who work in lower-paying agricultural jobs. Long commutes mean that people will likely have less time to pursue outdoor recreational opportunities or other forms of leisure. In addition, the long commutes from these areas to the San Francisco Bay Area mean that air quality will likely worsen. Watsonville, located in southern Santa Cruz County, is a historic farm town. The town is undergoing a number of changes as a result of increased competition from Mexico in the agricultural sector. Frozen food packing companies are leaving the area and relocating to places outside the United States where wages are lower. Consequently, workers are losing jobs in the packing plants and are finding it difficult to find work that pays comparably (McDonnell 1996). At the same time, the city is undergoing a surge of immigrants, resulting in a population that is more than 60 percent Latino (McDonnell 1996). As a result of the increase in population at the same time that industry is departing, the city has been suffering from unemployment rates as high as 20 percent, substandard housing, overcrowded schools, and inadequate public services (McDonnell 1996). There is potential for this county to be pulled in two directions: One as a bedroom community housing workers with high wages from Silicon Valley and the other composed of farming communities in the south that are poor and experience the negative effects of urbanization without the benefits.

Water supply rather than water quality is a considerable concern in the county. More water is withdrawn from aquifers than is sustainable. This aggravates sea-water intrusion into coastal wells. Salt water is moving inward annually (United Way of Santa Cruz County 2000). The greater Santa Cruz area, which depends on surface water, is expected to already have a noticeable shortage by 2010, even with average rainfall totals (United Way of Santa Cruz County 2000). The combined housing shortage and looming water shortage present considerable challenges for the future.

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Summary and Implications for the Central Coast Region

Overall, the population in the Central Coast Region is projected to reach a high median age and is expected to become more ethnically diverse. San Luis Obispo and Santa Cruz Counties are projected to maintain their White majorities through 2040, making them distinct from other counties in the region and the State. Increases in overall population are expected for the region. A unique feature of the region is that every county is home to a large public university. These educational resources bode well for the counties, as they transition from the old economy of extractive industries to the new economy of information technology and knowledge-based industries.

The number of watersheds in the four counties rated a "6" or "5" draws attention to the need to address threats to water quality in this region, along with the challenges of supplying water to an increasing number of residents. The region's scenic beauty and natural resources, including the large amount of Federal forest lands, make this a particularly attractive area. Housing costs and the probable scarcity of housing in the future in some of its counties are challenges to this region's quality of life. One of the biggest challenges facing the region is how it will choose to grow in the future while protecting the environmental assets that are the basis for tourism in the region (e.g., scenic coastline, ocean views, monarch butterflies, and forests).

The new economy opens up the Central Coast to more settlement since people no longer have to live within driving distance of their jobs. This new e-commerce economy with its web-based transactions is a double-edged sword for the Central Coast. On the one hand, it brings new money into the region, thereby stimulating the economy. On the other hand, it contributes to the decline in the quality and availability of the natural amenities that attracted people to the county to begin with: the clean air, clean water, beautiful ocean vistas, and large areas of open space.

V. The Central Valley Region

The Central Valley is one of the most important agricultural regions in the nation (*fig. 84*). The Valley stretches 450 miles and encompasses parts of 19 counties (Great Valley Center 1998). [The number of counties included in the Central Valley varies by source. For example, the American Farmland Trust (1995) states that the Central Valley encompasses parts of 21 counties. According to the Great

Figure 84—The Central Valley region encompasses as many as 19 counties in central California (shaded area).

Source: 50 Individual States—Counties 1995

Valley Center, the Central Valley encompasses 19 counties (www.greatvalley.org/research/index.htm)]. Since the Central Valley is an economic rather than political region, its definition varies. It also varies because some authors count only counties that fall within the boundaries of the Central Valley and others include portions of counties. What is important, however, is that these counties are distinct from the urban centers of San Francisco, Los Angeles, San Diego and the Inland Empire of Riverside-San Bernardino. Nine of the nation's top 10 agriculturally productive counties are in California, and 6 of these are in the Central Valley (Agricultural Task Force for Resource Conservation and Economic Growth in the Central Valley 2000). The Central Valley has one-sixth the population and more than two-fifths of the land area of the State (Umbach 1997). One-quarter of the nation's food is produced in the region (Great Valley Center 1998). More than 250 agricultural crops are raised in the Central Valley. In some cases, the Central Valley is the only source of certain products on the American market. Thus, the nation's agricultural self-sufficiency is tied to the Central Valley's well being (Great Valley Center 1998).

Extensive growth is predicted for the region. DOF projects a population of 15.6 million by 2040, a tripling of the current population (American Farmland Trust 1995, Great Valley Center 1998). Residential and commercial growth is consuming an estimated 15,000 acres of Central Valley farmland each year (American Farmland Trust 1995). Urban growth will have an enormous impact on agricultural land in the Central Valley, and it will create pressure for higher taxes to pay for vastly expanded public services (American Farmland Trust 1995). Air quality is threatened by expanding urban growth. Studies conducted at the University of California have documented 25 to 30 percent yield losses in many crops in the Central Valley due to air pollution (Agricultural Task Force for Resource Conservation and Economic Growth in the Central Valley 2000). There is great potential for the development of a sprawling urban corridor from Sacramento to Bakersfield along Highway 99. Growth is driven by increased birth rates and continued immigration from around the Pacific Rim, and Central and South America. Residents are attracted by the Valley's lower housing costs that are less than those in the State's coastal areas. The Central Valley is facing the same set of choices in 1998 that Los Angeles and the San Francisco Bay Area faced 40 years ago (Great Valley Center 1998).

Although the value of agricultural production appears to have increased while losing farmland to urbanization, there is a point of diminishing returns. During California's post World War II sprawl, new agricultural technologies and additional irrigation allowed more intense agricultural production to occur although prime soils were being urbanized. This is no longer a viable option (Agricultural Task Force for Resource Conservation and Economic Growth in the Central Valley 2000).

Motivated by concern about the form future urban growth might take, the American Farmland Trust (1995) conducted a study of alternatives for future Central Valley growth. The study included computer mapping of probable development patterns and an analysis of the potential economic impact of development patterns on the agricultural industry and the financing of public services. The American Farmland Trust (1995) found that low-density urban sprawl would consume more than 1 million acres of farmland by 2040. Sixty percent of this land is estimated to be prime farmland. Low-density development would also eliminate 40,000 agriculture-related jobs, it would reduce total annual farm-related sales by more than $5 billion, and it would cost affected cities nearly $1 billion annually. In contrast, more compact, efficient growth would reduce farmland conversion to 474,000 acres, including 265,000 acres of prime farmland. It would save more than 21,000 jobs related to agriculture, retain nearly $3 billion in gross farm-related sales and would yield a $0.2 billion surplus annually to cities. The study also calculates costs for individuals. The low-density scenario would cost each new city resident an average of $123 annually while the compact growth alternative would result

in an average annual surplus of $27 for each resident. In some counties farmland loss will be proportionately much greater because those counties are expected to absorb a larger share of total population growth.

Fresno, Sacramento, and Stanislaus Counties can expect to lose about 20 percent of their prime farmland, compared to an average of 12 percent for all valley counties studied. Direct conversion of farmland is not the only way urbanization threatens agriculture. Farmland adjacent to residential development is more costly and risky to farm because of land use conflicts that arise. The spillover effects of agriculture such as noise, odors, blowing dust, and pesticide use can irritate neighboring residents, increasing growers' risk of liability. Within this "zone of conflict," agriculture is likely to suffer disruptions and economic losses from crimes such as pilferage of crops and vandalism of equipment. Productivity suffers when farmers avoid making capital improvements on land they believe will soon be urbanized. Low-density urban sprawl will subject agriculture to increased risk on an additional 2.5 million acres. A more compact growth pattern would reduce this zone by nearly 40 percent to 1.6 million acres (American Farmland Trust 1995). By 2040, low-density sprawl could reduce the value of agricultural products grown in the Central Valley by about $2.1 billion annually. The American Farmland Trust concluded that a "no growth" alternative is not an option for the Central Valley, but that agricultural interests, developers, environmentalists, and residents need to make decisions about the form of future growth.

When residents were asked to name the most important public policy issue facing the Central Valley today, a group of five growth-related issues took precedence. Nearly half of those surveyed said water, the environment and pollution, population growth and development, loss of farmlands and agriculture, and traffic and transportation are the biggest problems (Baldassare 1999). The region is also known as a "swing region" where neither of the major political parties has a voter registration advantage. Statewide elections could be affected tremendously, depending on how Central Valley residents vote (Baldassare 1999).

Central Valley residents also have a tendency to identify themselves with their city or community rather than with the region as a whole (Baldassare 1999). This coincides with the fact that the region is very large and diverse with distinct localities that have different local identities, media outlets, and labor pools (Umbach 1997). Geographically, the Valley is subdivided into northern and southern portions. The northern part is the Sacramento Valley and the southern part is the San Joaquin Valley. Even these two subregions are large and internally diverse (Umbach 1997).

The Central Valley is distinct from California as a whole in its predominance of private land ownership. A large proportion of California's land (49 percent) is government-owned (especially Federal). In contrast, much of the Central Valley is farmland and is almost entirely in private ownership (Umbach 1997). This has major implications for the rate of agriculture to urban conversion. Clearly, the rate of conversion has the potential to be higher in areas where private ownership predominates and where the potential for urban development creates a speculative land market.

The Central Valley has fewer physicians and hospital beds in comparison to California averages (Umbach 1997). It also has higher rates of births to adolescent mothers and higher rates of inadequate prenatal care than the State as a whole (Umbach 1997). Most Central Valley counties have higher rates of poverty than the California average. Median household income lags behind the State average and unemployment rates are high (Umbach 1997).

The northern part of the Central Valley provides much of the State's water. More water is exported from the Sacramento region than from anywhere else in the State (Umbach 1997). With competing demands for a limited water supply, water planning must be the foundation of Central Valley growth. For example, groundwater constitutes 15 percent of the State's annual net groundwater use.

Two-thirds of the depletion occurs in the Central Valley. With urban water demand expected to rise by 54 percent by 2020, the amount of water available to agriculture is certain to decline (Munroe and Jackman 1997).

Transportation

Worsening traffic congestion has resulted from the San Francisco Bay Area's robust economy and the growing number of commuters who travel from the Central Valley into the Bay Area. More drivers are on the road and they are traveling longer distances. The commute can be as much as a couple of hours to and from work, but to live closer to work in the Silicon Valley would require paying two or three times as much for a home (King 2000). More than 30,000 workers commute daily from Tracy, Manteca, Stockton, and Modesto to the Bay Area via the Altamont Pass—a 450 percent increase since 1980 (Munroe and Jackman 1997). One solution has been the development of the Altamont Express train, which will take passengers from Stockton to San Jose in 2 hours, and make stops in Manteca, Tracy, Livermore, Pleasanton, Fremont, and Santa Clara.

Traffic is less of a problem within the Valley than it is on interconnections between the Valley and the Bay Area. However, the traffic that does exist is causing serious air pollution in the Valley, particularly in the Sacramento metro area (Munroe and Jackman 1997). Air quality in the Valley has not met Federal standards for more than 20 years (Munroe and Jackman 1997). There is growing evidence that some of the Central Valley's air pollution comes from outside the region, mainly from the San Francisco Bay Area. A California Air Resources Board study found that 27 percent of ozone pollution in the San Joaquin Valley comes in from the Bay Area and Sacramento (Munroe and Jackman 1997). The Central Valley's topography hinders the dispersion of the pollutants, trapping and heating them. Air pollution not only affects humans but also affects crops. Currently, the counties in the northern part of the Central Valley have been most affected, but as development continues in the Valley, other counties will be affected as well (Munroe and Jackman 1997).

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Fresno County

- The county is the nation's number one agricultural producer.
- The two largest sectors of the economy are agriculture and services.
- Growth in the labor force outpaces job growth.
- The county is home to a large settlement of Hmong refugees.

History

The Yokut and Monache Indian tribes were the first inhabitants of the area (Clough and others 1986). The first explorers in the region were Spanish explorers seeking sites for missions. Don Pedro Fages entered the region in 1772, followed by Father Francisco Garcés in 1776, and Lieutenant Gabriel Moraga in the early 1800s (California Traveler, Inc. 1974, Clough and others 1986). In 1826, Jedediah Smith came with an overland trapping and trading expedition (Wallace W. Elliot & Company 1882). In 1844, General Fremont passed through the territory of Fresno (Wallace W. Elliot & Company 1882).

Fresno County was formed out of Merced County in 1856 (Outcalt 1925). Even before the county's formation, gold and copper were being mined in the Sierra Nevada and timber was harvested in large quantities (County of Fresno 1998). The Gold Rush brought the first settlers to the region (Winchell 1933). In the western part of the county, oil and coal production were the main industries. In 1851, Fort Miller was established (Winchell 1933).

In the 1860s and 1870s, agriculture supplanted mining and the raising of cattle and sheep as the county's predominant economic activity. Apples, figs, and grapes were planted in the foothills and on the valley floor (County of Fresno 1998). At first, the land was watered by small, private irrigation systems, but later massive government-assisted projects including dams and canals helped Fresno County blossom into the most productive agricultural county in the nation (Clough and others 1986) (*fig. 85*). The first large irrigation canal was built in 1871, and it was 38.5 miles long (Wallace W. Elliot & Company 1882). The transition to agriculture did not come without a fight from the cattlemen who sought retaliation with the "No Fence" law, which allowed cattle to roam freely, frequently damaging crops that were planted in their feeding grounds (Winchell 1933).

The railroad company came to the county in 1872 and established the town of Fresno (Winchell 1933). Fresno became the county seat in 1874, but it was not until 1885 that Fresno incorporated (Winchell 1933). Persistent advertising of the county's wealth—its rich lands promising fortune—attracted settlers from near and far and led to the land boom of 1887.

A number of ethnic groups played an important role in the county's development (Clough and others 1986). Hispanics came to the county during the time of the Mexican land grants, during the Gold Rush and later, as agricultural laborers. Blacks, Japanese, and Armenians came to Fresno County in the late 1800s to work in the vineyards and fields. Chinese were brought to the area to work on the railroads, irrigation canals, and levees. German immigrants from the Volga region of Russia also made their way to Fresno County in the late 1800s. Because of the prejudices that isolated them from the rest of the community, the Armenians and the Chinese each formed their own fraternal organizations for charitable purposes and to promote cultural awareness of their heritage.

More recently, the Hmong, a people from the highlands of Laos, have become the largest Southeast Asian refugee group in Fresno County (Clough and others 1986, Ng 1993). Because the Hmong are an agriculturally-oriented people, they were attracted to the agricultural opportunities of the San Joaquin Valley. In the late 1990s as many as 6,000 refugees left the San Joaquin Valley for Minnesota, Wisconsin, Oregon, and other states where their chances of finding work were better (Arax 1996).

Figure 85—Fresno County (shaded area) is the geographic center of the State of California.

Source: 50 Individual States—Counties 1995

Fresno County Today

Fresno County is the largest county in geographic area in the San Joaquin Valley (Clough and others 1986). Agribusiness is the major industry in Fresno County. More than 250 agricultural commodities are produced in the county including fruit and nut crops, vegetables, cotton and other field crops, and livestock and poultry (Munroe and Jackman 1997). Fresno County is also home to the Internal Revenue

Service Western Processing Center. The county's centralized location in the Central Valley makes it attractive for distribution centers. Forty percent of the land in Fresno County is government-owned (primarily Federal, Umbach 1997). Most of the mountain land in Fresno County is part of the Kings Canyon National Park, the Sequoia National Forest, or the Sierra National Forest (Clough and others 1986).

Sociodemographic Characteristics

Projected Population—DOF and Fresno Council of Governments (COG) calculated population projections for Fresno County (*table 61*). An increasing population is expected through the forecast period. The Fresno COG projects a larger population in the county than DOF. The gap between the two sets of projections increases over time. Starting with a difference of slightly more than 10,000 people in 2000, the difference grows to more than 81,000 people by 2020.

Table 61—*Population projections, Fresno County, 1990-2040.*

Source	1990	2000	2005	2010	2015	2020	2025	2030	2040
U.S. Census	667,490[1]	799,407	-	-	-	-	-	-	-
DOF	673,608[2]	811,179	-	953,457	-	1,114,403	-	1,308,767	1,521,360
Fresno COG	-	821,797	908,338	1,002,153	1,096,227	1,195,465	1,301,240	-	-

Source: United States Census Bureau 1990a and 2000, State of California Department of Finance 1998, Penbera 2000

[1] Data from April 1.

[2] Data from July 1.

Ethnic and Racial Diversity—An estimated 60,000 Hmong have settled in the San Joaquin Valley, located mostly in Fresno, Merced, and Tulare Counties (Arax 1996). In 1990, Whites were the majority in Fresno County, but in 2000, Hispanics surpassed Whites to become the largest ethnic group in the county (*table 62*).

Table 62—*1990 and 2000 population, Fresno County.*

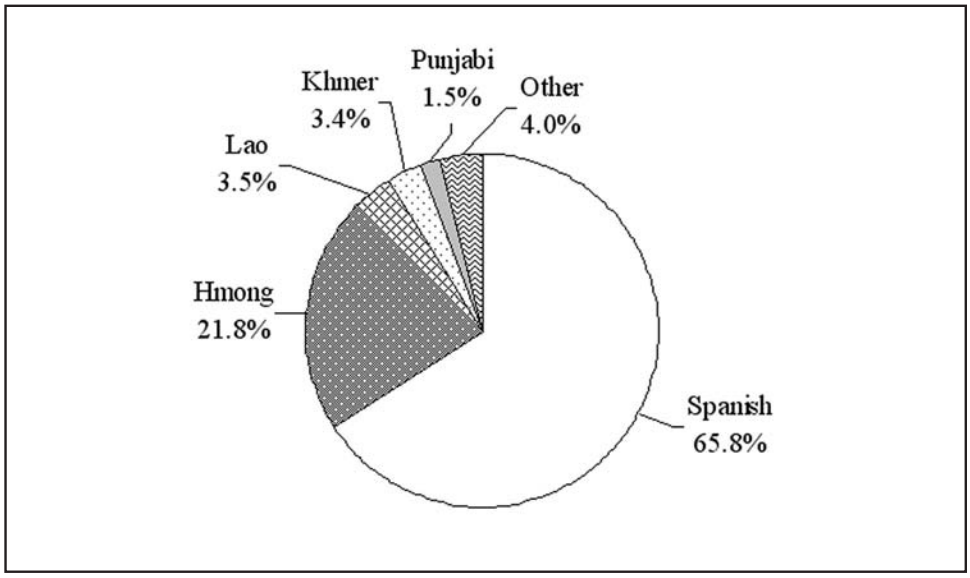
	1990	2000
	---------- Percent	----------
Non-Hispanic White	50.7	39.7
Hispanic all races	35.5	44.0
Non-Hispanic Black	4.7	5.0
Non-Hispanic Asian	8.1	8.0
Non-Hispanic American Indian	0.8	0.8
Non-Hispanic other	0.3	0.2
Non-Hispanic two or more races	N/A	2.3

Source: United States Census Bureau 1990a, 2000

In 1990, 17.8 percent of Fresno County's population was foreign-born. More than one-third (35.3 percent) of residents age 5 and older spoke a language other than English at home. Of those, the majority (73.1 percent) spoke Spanish and 26.9 percent spoke a language other than English or Spanish (United States Census Bureau 1990b).

Linguistic diversity is also reflected within the schools in the region. The majority of LEP students in Fresno County public schools speak Spanish or Hmong—mirroring the languages spoken at home (*fig. 86*). In 1997-98, 27 percent of Fresno County's public school students were LEP.

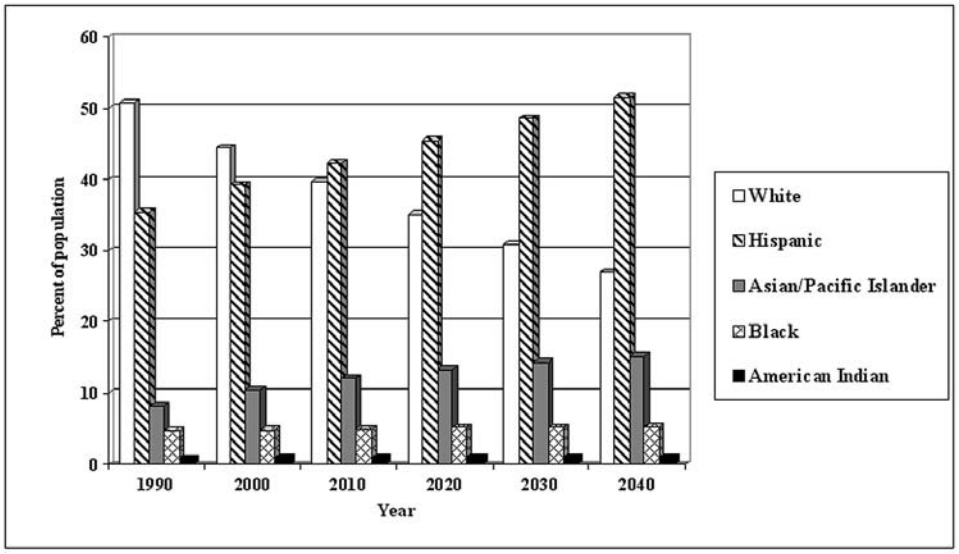
Figure 86—Limited-English-Proficient (LEP) students in Fresno County public school districts, by language, 1997-1998.



Source: California Department of Education 1998b

Projected Ethnic and Racial Diversity—In addition to the projected increase in the overall population in Fresno County, it is expected that Hispanics will increase as a proportion of the population and Whites will decrease (*fig. 87*). Asians will increase to a lesser degree as a proportion of the population, while Blacks and American Indians remain at about the same proportions, increasing slightly in actual numbers.

Figure 87—Racial and ethnic diversity trends for Fresno County.



Source: State of California Department of Finance 1998

The proportion of Whites is expected to decrease by approximately 24 percent during the forecast period, while Hispanics and Asians increase by approximately 16 and 7 percent, respectively. The Black and American Indian proportions of the population have projected increases of less than 1 percent over the forecast period (*table 63*).

Table 63—*Percent race/ethnicity and percent change in Fresno County, 1990-2040.*

Racial/ethnic group	1990	2000	2010	2020	2030	2040	Cumulative percent change
	Year						
White	50.79 -	44.52 (-6.27)	39.72 (-4.81)	35.13 (-4.59)	30.85 (-4.28)	27.00 (-3.85)	-23.79
Hispanic	35.56 -	39.28 (3.72)	42.30 (3.02)	45.43 (3.13)	48.57 (3.15)	51.55 (2.98)	15.99
Asian/Pacific Islander	8.20 -	10.46 (2.26)	12.05 (1.59)	13.28 (1.23)	14.37 (1.09)	15.23 (0.86)	7.03
Black	4.69 -	4.84 (0.15)	4.97 (0.13)	5.15 (0.18)	5.18 (0.04)	5.20 (0.02)	0.51
American Indian	0.76 -	0.89 (0.14)	0.97 (0.08)	1.02 (0.05)	1.03 (0.01)	1.02 (-0.01)	0.26

Source: State of California Department of Finance 1998

Along with projected changes in race and ethnicity, changes in the area population's age are projected. Projected median age for Fresno County residents varies by race/ethnicity and gender. Females are projected to have higher median ages in all ethnic groups except Asians and Hispanics. Whites have the highest projected median age between 1990 and 2040 (from 35 to 43.5 years), followed by American Indians (from 28.5 to 36.5 years) (*fig. 88*). Though they remain a relatively young population in Fresno, Asians have a steep increase in median age across the forecast period (from 20 to 29). The county's Black and Hispanic populations show smaller projected increases in age (from 24.5 to 28 and from 23 to 27, respectively).

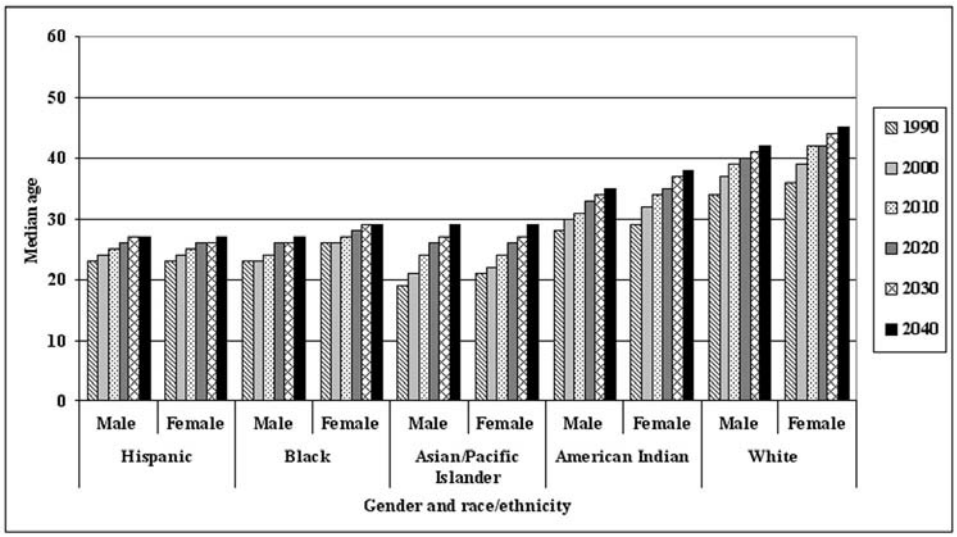


Figure 88—Median age by gender and race/ethnicity, Fresno County, 1990-2040.

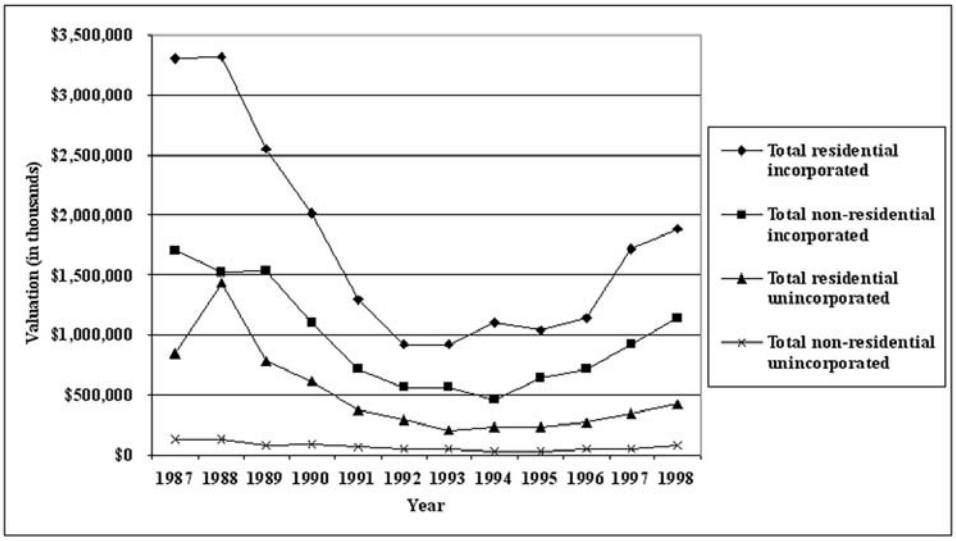
Source: State of California Department of Finance 1998

Development and Real Estate

Most growth in the county occurs in incorporated areas. The unincorporated areas of the county experienced a decrease in population of 8 percent from 1980 to 1996, primarily due to city annexations (County of Fresno 1998). In 1998, only 23 percent of the county's population lived outside cities (County of Fresno 1998). The majority of the population lives in the Fresno-Clovis metropolitan area (Clough and others 1986).

Building trends in Fresno County from 1987 to 1998 reveal that with the recession, all types of construction in the county decreased (*fig. 89*). However, residential construction in incorporated areas showed the sharpest decrease. Post-recession increases in construction were evident.

Figure 89—Building trends, Fresno County, in 1998 dollars, 1987-1998.



Source: Construction Industry Research Board 1988-1999

In 1990, Fresno County had 220,933 households and 235,563 housing units. The vast majority (93.8 percent) of housing units were occupied, 6.2 percent were vacant (United States Census Bureau 1990a). Of the occupied housing units, the majority (54.3 percent) were owner-occupied, 45.7 percent were renter-occupied (United States Census Bureau 1990a). The median value of owner-occupied housing units in 1990 was $83,600, and the median rent was $434 per month.

Quality of Life Indicators

Transportation, Commuting, and Employment—In 1990, there were 265,397 workers age 16 and older in Fresno County, and an average of 1.7 vehicles per household. Less than 6 percent of Fresno County residents worked outside the county. The majority (75.2 percent) of workers drove to work alone, although a few carpooled to work (14.9 percent) (*fig. 90*). Very few used public transportation. The average travel time to work was 19.1 minutes compared to the average of 20.3 minutes for the Central Valley counties included in this assessment.

Fresno County is at a crossroads economically. Fresno County is the nation's top-ranked agricultural-producing county (County of Fresno 1998). The market value of agricultural products sold increased to $2,772,785,000 from 1992 to 1997, an increase of 33 percent (United States Department of Agriculture 1997). In the past decade, Fresno County has also become the San Joaquin Valley's business, recreational, and population center. Despite growth in business, high unemployment and slow growth in personal income persist in the county (County of Fresno 1998). Although agriculture is still the primary generator of wealth in the county, service sector employment rivals agricultural employment (County of Fresno 1998). Agriculture and services each comprise about one-fifth of the county's economy (County of Fresno 1998). Employment growth has also been strong in information processing, transportation, and distribution (County of Fresno 1998). Between 1985 and 1995, the civilian labor force grew at a relatively rapid rate, but the number of those employed did not. This lag resulted in a 1995 unemployment

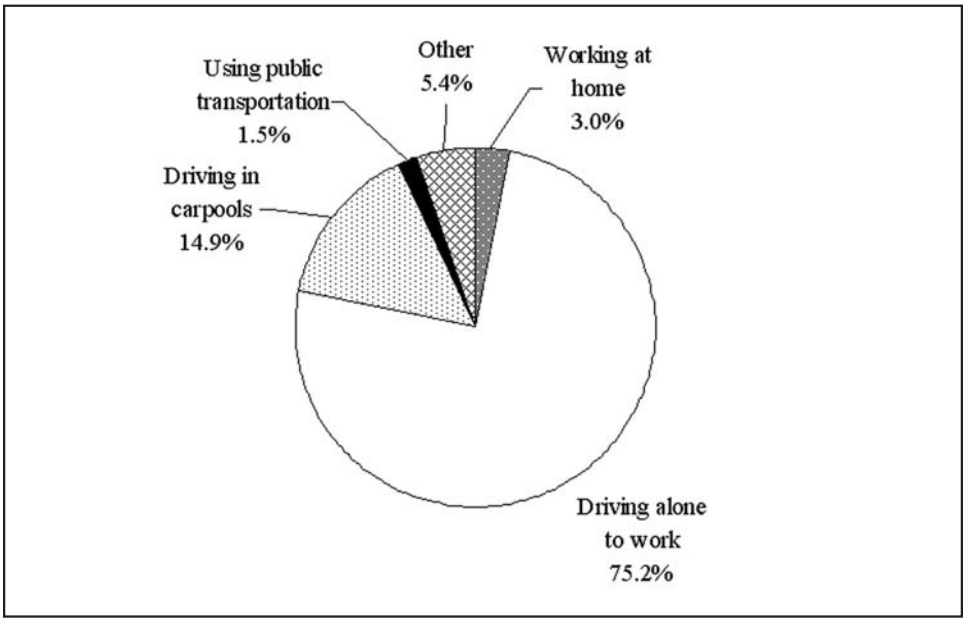


Figure 90—Commuting patterns, workers 16 and older, Fresno County, 1990.

Source: United States Census Bureau 1990b

rate of 14.1 percent (County of Fresno 1998). The fact that job growth has not kept pace with the growth in the labor force has resulted in a very competitive labor market. New entrants to the local labor force, particularly from other urban areas in California, often bring with them skills (e.g., professional, management, technical skills) superior to those of current residents (County of Fresno 1998). Fresno County currently has nearly 49 jobs for every 100 residents, but this relationship is changing as the population continues to grow faster than the number of jobs (County of Fresno 1998).

A comparison of the major economic sectors of California and Fresno County reveal that in California overall, less than 4 percent of employment is in agriculture, compared to almost 20 percent in Fresno County. This difference is offset by lower employment in manufacturing, services, and retail trade (County of Fresno 1998).

Education—Fresno County serves the largest number of students in its elementary schools (*table 64*). The county has more elementary schools (167) than middle and high schools (37 and 28, respectively). Average enrollment per school is greatest at the high school level, which is the pattern across the assessment area and all counties. Fresno County serves slightly more than 3 percent of the assessment area's school enrollments. County schools have the 9th highest enrollment overall, and they are 12th in highest average enrollment per school. Students in 2nd through 11th grade were tested using the Stanford 9 at 219 of the county schools. Fresno County's ranking in academic performance for 1999 was a mean of 5.37 out of 10 (based on the similarity index, www.cde.ca.gov), indicating somewhat higher-than-average performance than similar schools. Although 25.6 and 21.4 percent of schools in the county performed well below or below average compared to similar schools, 24.7 percent were well above average and 15.1 percent were above average.

Table 64—*Enrollment and number of schools, Fresno County, 1998-1999.*

Type of school	Total enrollment	Percent of total enrollment	Number of schools	Average enrollment/ school
Elementary	99,531	58.4	167	596
Middle/Junior High	26,115	15.3	37	706
High School	44,755	26.3	28	1,598
Total	170,401	100.0	232	-

Source: California Department of Education 1998a

Health Care—The largest number of health care establishments in the county deliver ambulatory health care services, followed by social assistance, and nursing and residential care (*fig. 91*). There are no hospitals in the county as reported by the U.S. Census Bureau. Yet, the county is considered a regional center for health services with 12 acute care facilities (Munroe and Jackman 1997). The county has 14 hospitals, representing 3.5 percent of the assessment area's total hospitals (ahd.tool.net/list.php3/mstate=ca). The largest percentage (35.7 percent) of the hospitals represents county facilities, with the balance classified as Federal (7.1 percent), nonprofit (28.6 percent), or for-profit (28.6 percent) facilities. For those hospitals with reported data (10 hospitals), a total of 1,765 beds and 349,739 total patient days were recorded in 1999. The county ranked 7th in number of hospitals, compared to its 10th place ranking in population.

The services at UC Davis Medical Center in Sacramento were singled out by *U.S. News & World Report* as being 22nd nationwide in the treatment of respiratory disorders, 23rd in hormonal diseases, 33rd in kidney disease, 37th in geriatrics, 38th in rheumatology, and 39th in digestive disorders (www.usnews.com/usnews/nycu/health/hosptl/metro.htm#).

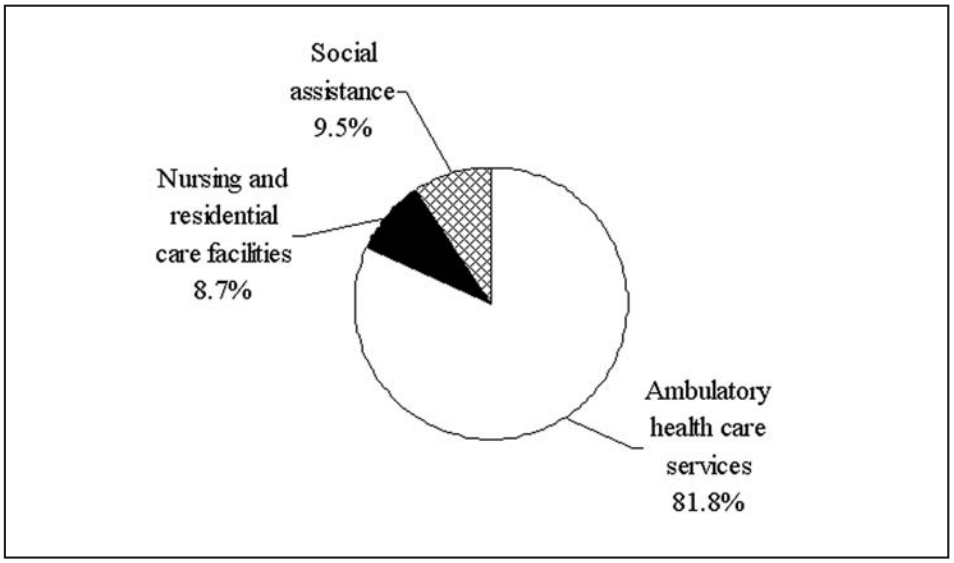


Figure 91—Health care and social assistance establishments, Fresno County, 1997.

Source: United States Census Bureau 1999a

Recreation and Tourism—Among the assessment area's 26 counties, Fresno ranked 12th in the 1997 economic census in accommodations and food services, and 16th in arts, entertainment, and recreation (United States Census Bureau 1999b, 1999c).

A total of 1,256 accommodation and food-services establishments, with $631,925,000 in receipts, was reported. Arts, entertainment, and recreation services involved 107 establishments, with receipts totaling $294,320,000. Aside from the

county's proximity to the Sequoia and Sierra National Forests, and at its western end the Los Padres National Forest, there are other recreational opportunities of note. The Kings River runs through Fresno County (www.kingsriver.com), and there are a number of lakes and reservoirs in the area including Millerton Lake State Recreation Area, Pine Flat Reservoir, Shaver Lake, and Huntington Lakes (Thomas Bros. Maps 1998). A 52-acre waterpark offers a more developed water-based experience in the county (www.wildwater1.com).

Environmental Indicators

Water Quality—Fresno County crosses 13 watersheds: the Upper Kaweah, the Mill, the Upper Dry, the Upper King, the Upper Los Gatos-Avenal, the Tulare-Buena Vista Lakes, the Middle San Joaquin-Lower Chowchilla, the Upper San Joaquin, the Panoche-San Luis Reservoir, the Pajaro, the Salinas, Crowley Lake, and Owens Lake (www.epa.gov/surf3/surf98/county.html). (Watersheds frequently cross county boundaries. Therefore, some counties may include watersheds that are also located in other counties.) The Tulare-Buena Vista Lakes watershed was assigned a "6" by the EPA, indicating "more serious water quality problems and high vulnerability to pollution stressors." (According to the EPA's Index of Watershed Indicators procedures, a pollution stressor includes aquatic/wetland species at risk, toxic loads above limits, urban runoff potential, agricultural runoff potential, population change, hydrologic modification, estuarine pollution susceptibility, and atmospheric deposition.) The Upper King, the Middle San Joaquin-Lower Chowchilla, the Pajaro, the Salinas, Crowley Lake, and Owens Lake watersheds were assigned a "5," indicating "more serious water quality problems but low vulnerability to pollution stressors." The Upper Kaweah was assigned a "3," indicating "less serious water quality problems and low vulnerability to pollution stressors." Data are not available for the Panoche-San Luis Reservoir, the Upper San Joaquin, the Upper Los Gatos-Avenal, the Upper Dry, or the Mill watersheds.

Air Quality—Fresno County has the 10th largest population of the 26 counties, paired with the 3rd highest total organic gas (TOG) emissions and the 9th highest emissions in various categories (*table 65*). However, Fresno ranks 4th in particulates. The majority of emissions are projected for marginal decreases dependent upon emission type. Particulates are expected to increase, primarily from area-wide sources, according to the California Air Resources Board (1999).

Table 65—*1996 estimated and 2010 forecasted annual average emissions, Fresno County (cells do not add to column totals due to rounding error).*

Year	Emission category	Emission type[1]						
		TOG	ROG	CO	NOx	SOx	PM	PM10
1996	Stationary	320	22	11	34	8	8	6
	Area-Wide	120	33	59	3	0	220	110
	Mobile	52	46	410	64	1	3	2
	Natural	2	1	17	0	-	3	3
	Total	500	100	500	100	9	240	130
2010	Stationary	280	23	11	35	9	8	6
	Area-Wide	130	36	60	4	0	230	120
	Mobile	25	22	260	45	1	3	2
	Natural	2	1	17	0	-	3	3
	Total	430	82	350	84	11	250	130

Source: California Air Resources Board 1999

[1] TOG: total organic gases; ROG: reactive organic gases; CO: carbon monoxide; NOx: nitrogen oxides; SOx: sulfur oxides; PM: particulate matter; PM10: particulate matter less than or equal to 10 microns (*appendix D*).

Implications

According to the County of Fresno (1998), if current growth trends continue, Fresno County will have to be more intensely developed. While the county is expected to experience major growth during the forecast period, the Fresno County General Plan projects that 93 percent of the new population growth within the county will occur within specific cities and their spheres of influence (Popp 2001). One exception is the city of Fresno where land demand exceeds the available land (County of Fresno 2000).

The form and pace of urban growth in the county will have implications for natural resources. If growth were to occur outside incorporated areas, all cities in the west valley would have to expand their current general plan holding capacities, as would some of the cities in the east valley area. If most growth were to occur outside cities and their sphere of influence, it would have major implications for the county. Population in the unincorporated east valley area, and in the Sierra Nevada and foothills would roughly double. New development within city spheres of influence and in unincorporated areas would eliminate or displace approximately 58,710 acres of prime or important farmland. Crop losses would involve fruit and nut trees in the east valley and field crops in the west valley. New development could increase daily vehicle person trips by over 80 percent countywide, leading to substantially more traffic congestion. Therefore, the county has quite an incentive to direct growth into incorporated areas.

According to the County of Fresno (1998), water supply could be a major constraint to new development, as surface water rights are difficult to obtain and groundwater countywide is currently overdrafted. One side effect of overdrafting is that salty water has invaded drinking water supplies (Arax 1992). Current growth trends cannot continue unless a new supply of water is identified or agricultural water supplies are redirected for urban use. Air quality is also a concern because the San Joaquin Valley is already designated as a "severe non-attainment" area with respect to ozone. Air quality in the county is likely to worsen unless vehicle emissions can be reduced through technological advances or improved compliance with Federal and State standards. A rapid pace of urban growth could threaten agriculture's viability, the availability of open space, and the quality of water and air in a significant and irreversible manner.

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Kern County

- Kern is the leading oil-producing county in the nation.
- The county is the second most productive agricultural county in the nation.
- Population growth in the county is driven by the search for lower housing costs.

History

In 1866 Kern County was carved from portions of Tulare and Los Angeles Counties (Bailey 1957) (*fig. 92*). The original inhabitants were the non-agrarian Yokut Indians who are best remembered for their skill in basketry (Robinson 1961) and the nomadic Shoshonean tribes who occupied the desert of eastern Kern and the valleys of the Sierra Nevada (Burmeister 1977). Artifacts reveal that people lived in the southern San Joaquin Valley as early as 5650 B.C. (Burmeister 1977). Petroglyphs on canyon walls near the China Lake Naval Weapons Center are estimated to be several thousand years old with the most recent drawings dating to approximately a century ago or about the time the first White men entered the county (Burmeister 1977).

The first White man to encounter the Indians was Commander Don Pedro Fages who entered the San Joaquin Valley through the Grapevine Pass in 1772 in pursuit of deserters from the Spanish army. The next White visitor was Father Francisco Garcés, a priest, who traveled through the area in 1776 on his way to the Mission San Gabriel. From 1813 until 1848, troops were sent to the interior not to convert or explore, but to capture slave labor and to punish horse thieves (Robinson 1961). In 1827, the exploring fur trader Jedediah Strong Smith came to Kern. In 1844, John Charles Fremont explored the San Joaquin Valley for the first time. His expeditions to the west, including Kern County, were of great national interest and added to the geographical, botanical, and geological knowledge of the region (Robinson 1961).

As prospectors and miners became discouraged with their lack of success in northern California, they pushed further south. Gold was discovered in Kern in 1851, and during the next two decades numerous prospectors and settlers began to populate the valleys bordering the Kern River (Bailey 1957). The Gold Rush of the 1850s stimulated farming activities in the mountains and valleys along the upper Kern River. Settlers raised wheat, barley, alfalfa, potatoes and other vegetables, as well as cattle and sheep. There was a ready market for all these items in the mining camps (Burmeister 1977). Fort Tejon was established by the U.S. Army in 1854 to help deal with the conflicts between Whites and Indians (Burmeister 1977) and to protect the Indians from Whites, and not vice versa as was the case elsewhere in the country (Bailey 1957, Rodgers 1948). The fort was abandoned in 1864 to become part of the Tejon Rancho, which was one of the State's largest land companies.

In 1865, petroleum was discovered in western Kern County, but the better-known oil boom came after the turn of the century. Bakersfield made its name as an oil town after the discovery of oil along the Kern River in 1899. In addition to

gold and oil, cattle and sheep have also been important in Kern County's economy (Bailey 1957, Kreiser and Hunt 1961). In fact, when oil declined, agriculture became the backbone of the county's economy (Kreiser and Hunt 1961).

The railroad came through Kern in 1876 linking Los Angeles with San Francisco, and as a result, settlers came to the county and towns sprung up along the railroad's right of way (Bailey 1957, Robinson 1961). During the 1870s many Chinese families became permanent residents after the completion of the Southern Pacific Railroad line through the Tehachapi Mountains to the east (Bailey 1957, Robinson 1961). Most of them were natives of China who had been imported by Chinese labor contractors, and when the last rail had been laid, a sizeable Chinese colony remained in Bakersfield.

Los Padres National Forest, a small portion of which is in Kern County, was built up piecemeal by proclamations or executive orders beginning in 1898 (Robinson 1961). In 1938, by order of President Roosevelt, the Los Padres National Forest was given its current name after the missionary fathers (Robinson 1961).

Figure 92—Kern County (shaded area) is directly north of Los Angeles.

Source: 50 Individual States—Counties 1995

Kern County is a major source of the world's borax, coming from boron in eastern Kern County (Burmeister 1977, Peirson 1956). The eastern portion of the county also became the site for a number of military bases (Bailey 1957, Burmeister 1977). Rogers Dry Lake in the southeast corner of Kern County became a training field for pilots and an airplane-testing center. Edwards Air Force Base, which extends east into San Bernardino County, was where experimental aircraft was tested. In the northeast corner of Kern County, China Lake was chosen by the U.S. Navy in 1943 for the world's largest naval testing station.

Kern County has experienced steady growth since the time of the first permanent settlers in the 1850s. Kern County saw the highest rate of growth from 1930 to 1950 when the population increased by 176 percent (Burmeister 1977). Development in agriculture and the oil industry brought about this population boom.

Kern County Today

Agriculture is the county's dominant industry, followed by chemical and allied products, rubber and miscellaneous plastics products, and printing and publishing (Umbach 1997). The top five agricultural products are grapes, cotton/cottonseed, almonds, citrus, and milk (Umbach 1997, www.bakersfield.org/chamber/city/profile.html). Agriculture and oil have been the pillars of Kern County's economy. With four of the nation's 10 largest oil fields, Kern County is the nation's number one oil producing county. It is also the second top agricultural producing county in the U.S. (United States Department of Agriculture 1997). The market value of agricultural products sold in 1997 was $1,968,513,000 (United States Department of Agriculture 1997).

Kern County has a low cost of living and affordable housing. Its proximity to Los Angeles makes it an attractive destination for those seeking a lower cost of living. Half the new residents between 1980 and 2000 were expected to locate in incorporated areas (County of Kern 1994). There is a sufficient supply of land to accommodate projected population growth in unincorporated areas, but those areas lack the necessary infrastructure to accommodate the growth (County of Kern 1994).

Sociodemographic Characteristics

Projected Population—DOF is the only agency that calculates population projections for Kern County (*table 66*). The population is expected to increase through the forecast period. Over time the decennial increases grow larger. For example, DOF projects an increase of 127,841 people in the county from 1990 to 2000 versus an almost 300,000-person increase from 2030 to 2040.

Table 66—*Population projections, Kern County, 1990-2040.*

Source	1990	2000	2010	2020	2030	2040
U.S. Census	544,981[1]	661,645	-	-	-	-
DOF	549,531[2]	677,372	859,818	1,073,748	1,327,013	1,623,671

Source: United States Census Bureau 1990a and 2000, State of California Department of Finance 1998

[1] Data from April 1.

[2] Data from July 1.

Ethnic and Racial Diversity—Kern County became much more ethnically diverse between 1990 and 2000. In 1990, Whites were the majority in Kern County. (These are the 1990 revised U.S. Census numbers.) In 2000, Whites were less than half the population and there was growth in the Hispanic, Black, and Asian proportions of the population (*table 67*).

Table 67—*1990 and 2000 population, Kern County.*

	1990	2000
	----------Percent ----------	
Non-Hispanic White	62.6	49.5
Hispanic all races	27.9	38.4
Non-Hispanic Black	5.3	5.7
Non-Hispanic Asian	2.7	3.3
Non-Hispanic American Indian	1.0	0.9
Non-Hispanic other	0.2	0.2
Non-Hispanic two or more races	N/A	2.1

Source: United States Census Bureau 1990a, 2000

In 1990, 12.2 percent of Kern County's population was foreign-born. Almost one-quarter (24.6 percent) of Kern's residents age 5 and older spoke a language other than English at home. Of those, the majority (84.9 percent) spoke Spanish and a few (15.1 percent) spoke a language other than English or Spanish (United States Census Bureau 1990b).

Linguistic diversity is also reflected within the schools in the region. The majority of LEP students in Kern County public schools speak Spanish—mirroring the languages spoken at home—then a selection of other languages and Pilipino (*fig. 93*). (Other languages include Vietnamese, Hmong, Cantonese, Khmer, Korean, Armenian, Mandarin, Lao, Russian, Punjabi, Arabic, Farsi, and other languages of China and the Philippines.) In 1997-98, 18.6 percent of Kern County's public school students were LEP.

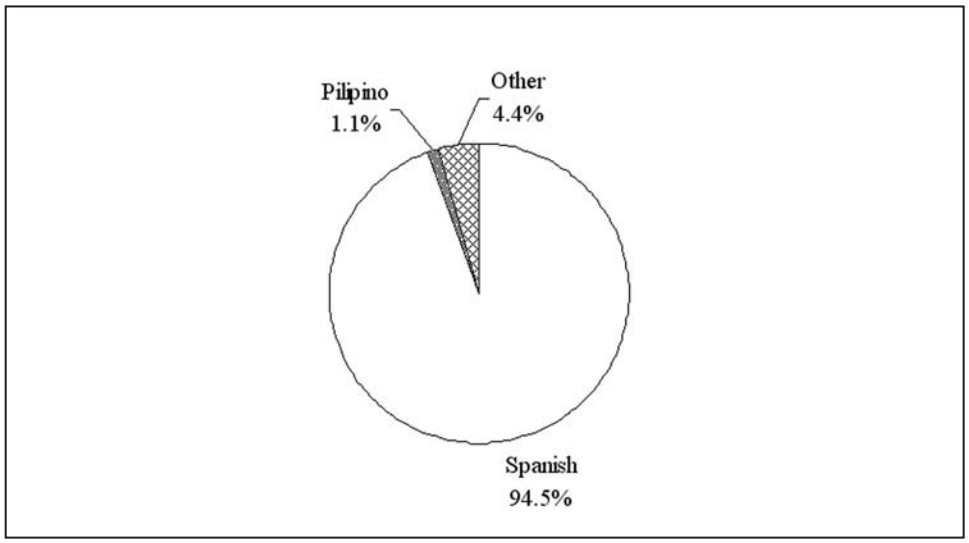

Figure 93—Limited-English-Proficient (LEP) students in Kern County public school districts, by language, 1997-1998.

Source: California Department of Education 1998b

Projected Ethnic and Racial Diversity—As Kern County's population increases, an increase among Hispanics as a proportion of the population and a decrease among Whites are projected (*fig. 94*). Asians are expected to increase slightly as a proportion of the population, while Blacks remain a small and stable proportion of the population. American Indians are expected to decrease slightly as a proportion of the population.

The proportion of Whites is projected to decrease by more than 32 percent through the forecast period, while Hispanics are projected to increase by approximately 30 percent (*table 68*). As a proportion of the population, Asians are projected to increase by 2.28 percent, Blacks by less than 1 percent and American Indians are projected to have little change in population.

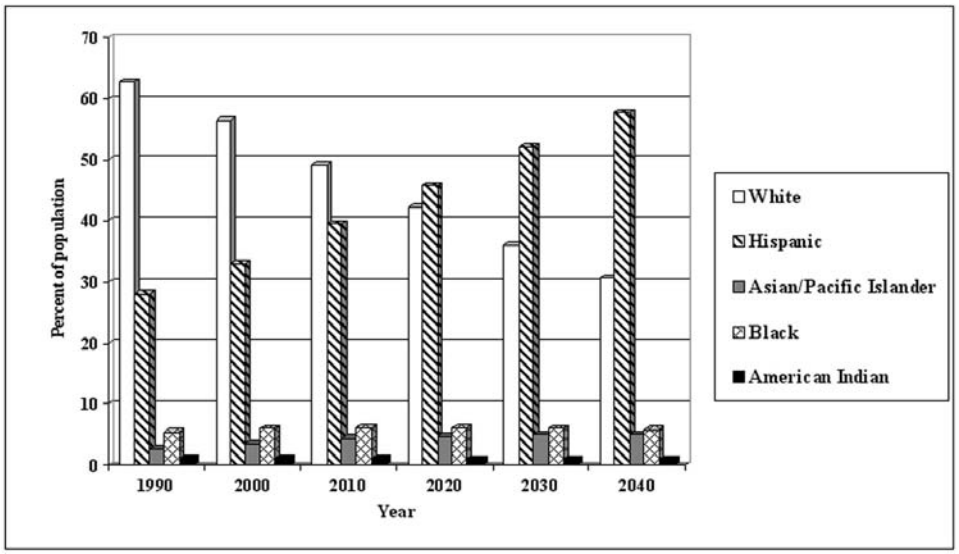

Figure 94—Racial and ethnic diversity trends for Kern County.

Source: State of California Department of Finance 1998

Table 68—*Percent race/ethnicity and percent change in Kern County, 1990-2040.*

Racial/ethnic group	1990	2000	2010	2020	2030	2040	Cumulative percent change
	----------Year----------						
White	62.81 -	56.55 (-6.25)	49.07 (-7.49)	42.27 (-6.80)	36.07 (-6.20)	30.66 (-5.41)	-32.14
Hispanic	28.10 -	33.03 (4.93)	39.50 (6.48)	45.90 (6.40)	52.09 (6.18)	57.68 (5.60)	29.59
Asian/Pacific Islander	2.75 -	3.43 (0.67)	4.35 (0.92)	4.73 (0.38)	4.96 (0.23)	5.03 (0.07)	2.28
Black	5.31 -	5.95 (0.64)	6.06 (0.12)	6.12 (0.06)	5.99 (-0.14)	5.81 (-0.18)	0.50
American Indian	1.03 -	1.05 (0.01)	1.02 (-0.03)	0.97 (-0.05)	0.90 (-0.08)	0.81 (-0.09)	-0.22

Source: State of California Department of Finance 1998

Along with projected changes in race and ethnicity, changes in the area population's age are projected. Projected median age for Kern County residents varies by race/ethnicity and gender. Females are projected to have higher median ages in the White, American Indian, and Black populations. American Indians have the highest projected increased median age between 1990 and 2040 (from 30.5 to 45.5 years), followed by Whites (from 33 to 41.5 years) and Asians (from 30 to 34 years) (*fig. 95*). The county's Black and Hispanic populations show smaller projected increases in age (from 26 to 29.5 and from 22 to 23 years, respectively).

Development and Real Estate

Building trends in Kern County from 1987 to 1998 reveal some chaotic patterns *(fig. 96)*. All types of construction showed decreases during the recession to varying degrees. Kern's construction patterns showed significant variation between years pre- and post-recession.

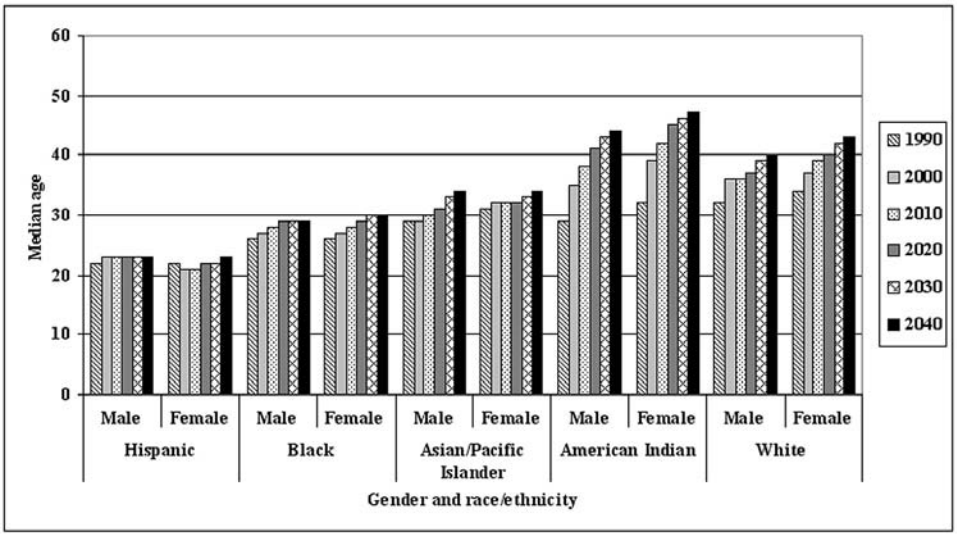

Figure 95—Median age by gender and race/ethnicity, Kern County, 1990-2040.

Source: State of California Department of Finance 1998

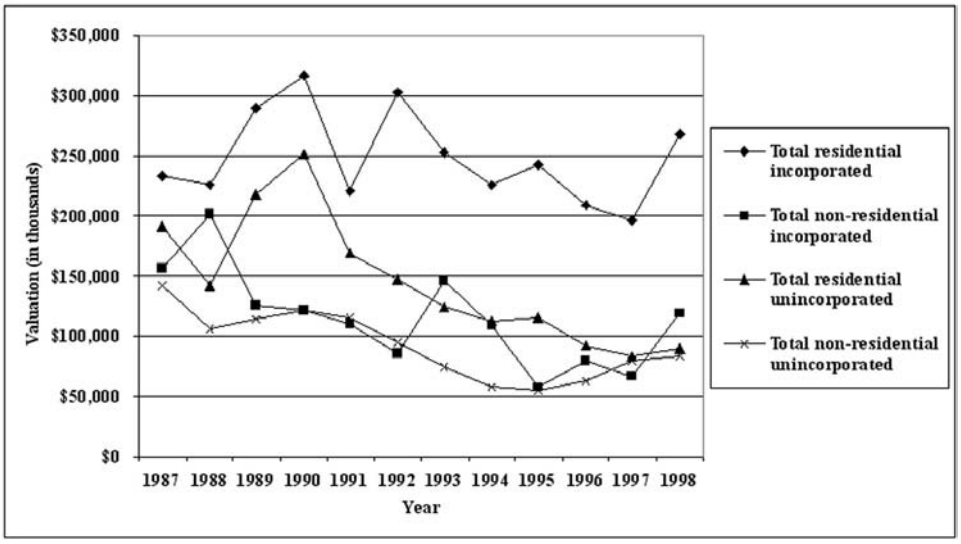

Figure 96—Building trends, Kern County, in 1998 dollars, 1987-1998.

Source: Construction Industry Research Board 1988-1999

In 1990, Kern County had 181,480 households and 198,636 housing units. The vast majority (91.4 percent) of housing units were occupied; a few were vacant (8.6 percent, United States Census Bureau 1990a). Of the occupied housing units, the majority (59.3 percent) were owner-occupied, though 40.7 percent were renter-occupied (United States Census Bureau 1990a). The median value of owner-occupied housing units in 1990 was $82,800, and the median rent was $440 per month.

Quality of Life Indicators

Transportation, Commuting, and Employment—In 1990, there were 213,525 workers age 16 and older in Kern County, and an average of 1.7 vehicles per household. Slightly less than 6 percent of Kern County residents worked outside the county. The majority (74.7 percent) of workers drove to work alone, although some carpooled to work (17.3 percent) (*fig. 97*). Very few used public transportation. The average travel time to work was 19.6 minutes compared to the average of 20.3 minutes for the Central Valley counties in this assessment.

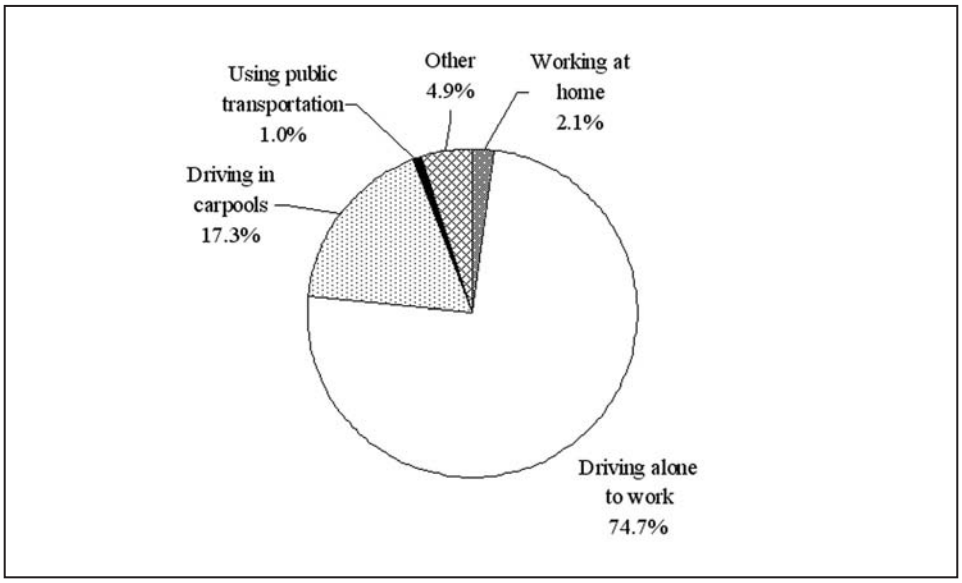

Figure 97—Commuting patterns, workers 16 and older, Kern County, 1990.

Source: United States Census Bureau 1990b

As of March 1999, employment by industry in the county was agriculture at 29.3 percent, government 16.6 percent, services 16 percent, retail trade 13.2 percent, mineral extraction 4.2 percent, and other 20.8 percent (www.bakersfield.org/chamber/city/profile.html). Major employers in the county include the Kern County public school system, the county of Kern, Edwards Air Force Base, the China Lake Naval Weapons Station, and various agriculture-related industries (Kern Economic Development Corporation 1997). Population growth continues to outpace employment resulting in an average unemployment rate of 12.8 percent in the county (Kern Economic Development Corporation 1997).

Education—Kern County serves the largest number of students in its elementary schools (*table 69*). The county has more elementary schools (139) than middle and high schools (39 and 25, respectively). Average enrollment per school is greatest at the high school level, which is the pattern across the assessment area and all counties. Kern County serves slightly less than 3 percent of the assessment area's school enrollments. County schools have the 11th highest enrollment overall, and they are 15th in highest average enrollment per school. Students in 2nd through 11th grade were tested using the Stanford 9 at 187 of the county schools. Kern County's ranking in academic performance for 1999 was a mean of 5.42 out of 10 (based on the similarity index, www.cde.ca.gov), indicating somewhat higher-than-average performance than similar schools. Although 20.7 and 25 percent of schools in the county performed well below or below average compared to similar schools, 23.4 percent were well above average and 14.9 percent were above average.

Table 69—*Enrollment and number of schools, Kern County, 1998-1999.*

Type of school	Total enrollment	Percent of total enrollment	Number of schools	Average enrollment/school
Elementary	74,835	54.0	139	538
Middle/Junior High	26,273	18.9	39	674
High School	37,559	27.1	25	1,502
Total	138,667	100.0	203	-

Source: California Department of Education 1998a

Health Care—The largest number of health care establishments in the county deliver ambulatory health care services, followed by nursing and residential care, and social assistance (*fig. 98*). There are no hospitals in the county as reported by the U.S. Census Bureau. However, according to the Kern Economic Development Corporation (1997), there are 550 physicians, 11 hospitals, and 11 emergency care facilities in the county. At least two of those hospitals were constructed after 1990. The county has 13 hospitals listed in the American Hospital Directory, representing 3.3 percent of the assessment area's total hospitals (ahd.tool.net/list.php3/mstate=ca). Less than half (46.2 percent) of the hospitals are nonprofit, with the balance classified as county (30.8 percent), for-profit (15.4 percent), or Federal (7.7 percent) facilities. For those hospitals with reported data (10 hospitals), a total of 1,598 beds and 3,764,148 total patient days were recorded in 1999. The county ranked 9th in number of hospitals, in contrast to its 14th place ranking in population.

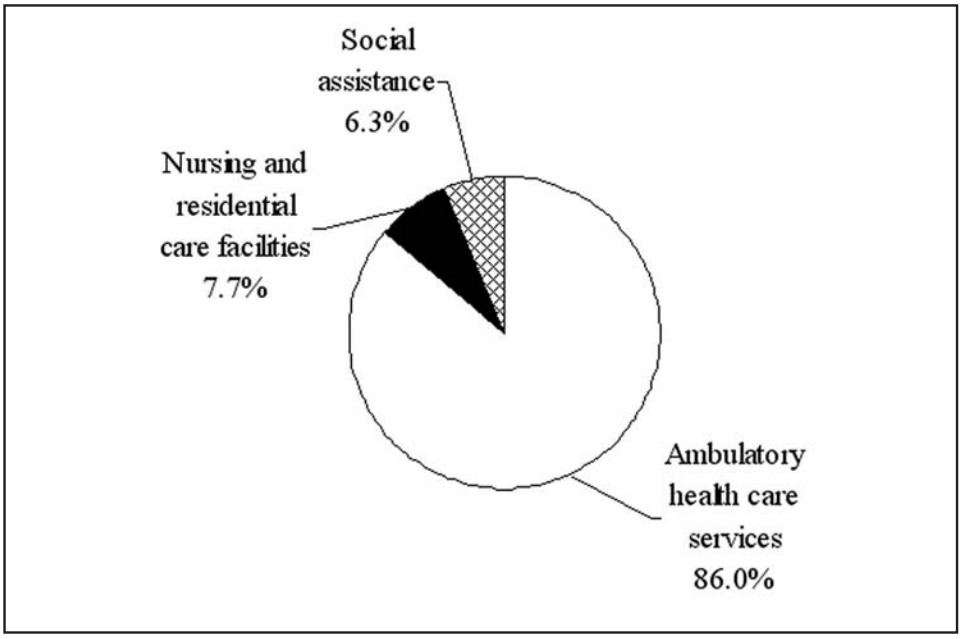

Figure 98—Health care and social assistance establishments, Kern County, 1997.

Source: United States Census Bureau 1999a

Recreation and Tourism—Among the assessment area's 26 counties, Kern ranked 14th in the 1997 economic census in accommodations and food services, and 17th in arts, entertainment, and recreation (United States Census Bureau 1999b, 1999c). A total of 1,013 accommodation and food-services establishments, with $493,718,000 in receipts, was reported. Arts, entertainment, and recreation services involved 102 establishments, with receipts totaling $64,474,000. The county offers numerous recreational opportunities, including the Kern National Wildlife Refuge, a large wetlands area that is home to waterfowl and various endangered species including the San Joaquin kit fox (www.wildernet.com). The county is proximate to the Sequoia National Forest, and a bit farther away, the Los Padres National Forest. It also has Randsburg Ghost Town and the Red Rock Canyon State Park (Thomas Bros. Maps 1998). Lake Isabella is within the county's boundaries, the largest body of water in the county year round (www.co.kern.ca.us/parks). Nearby is the Greenhorn Mountain Park, offering camping among cedars and pines, as well as escape from the warm valley below. Opportunities are numerous along the Kern River, and Tehachapi Mountain Park and the Buena Vista Aquatic Recreational Area offer additional natural resources recreation experiences.

Environmental Indicators

Water Quality—Kern County crosses 15 watersheds: the Upper Kern, the South Fork Kern, the Middle Kern-Upper Tehachapi-Grapevine, the Upper Poso, the Upper Deer-Upper White, the Upper Los Gatos-Avenal, the Tulare-Buena Vista Lakes, Carrizo Plain, Estrella, Cuyama, Santa Clara, Indian Wells-Searles Valleys, the Antelope-Fremont Valleys, Coyote-Cuddleback Lakes, and the Mojave (www.epa.gov/surf3/surf98/county.html). (Watersheds frequently cross county boundaries. Therefore, some counties may include watersheds that are also located in other counties.) The Tulare-Buena Vista Lakes watershed was assigned a "6" by the EPA, indicating "more serious water quality problems and high vulnerability to pollution stressors." (According to the EPA's Index of Watershed Indicators procedures, a pollution stressor includes aquatic/wetland species at risk, toxic loads above limits, urban runoff potential, agricultural runoff potential, population change, hydrologic modification, estuarine pollution susceptibility, and atmospheric deposition.) The Upper Poso and Cuyama watersheds were assigned a "5," indicating "more serious water quality problems but low vulnerability to pollution stressors." The Upper Kern, Middle Kern-Upper Tehachapi-Grapevine, Santa Clara, Antelope-Fremont Valleys, and the Mojave watersheds were assigned a "3," indicating "less serious water quality problems and low vulnerability to pollution stressors." Data are not available for the South Fork Kern, the Upper Deer-Upper White, the Upper Los Gatos-Avenal, Carrizo Plain, Estrella, Indian Wells-Searles Valleys, and Coyote-Cuddleback Lakes watersheds.

Air Quality—Kern County has the 14th largest population of the 26 counties, paired with the 5th highest total organic gas (TOG) and reactive organic gas (ROG) emissions, the 10th highest carbon monoxide (CO) emissions, the 4th highest nitrogen oxide (NOx) emissions, the 6th highest sulfur oxide (SOx) emissions (*appendix D*), and the 7th highest particulates (*table 70*). The majority of emissions are projected for marginal decreases dependent upon emission type. Particulates are expected to increase, primarily from area-wide sources, according to the California Air Resources Board (1999).

Table 70—*1996 estimated and 2010 forecasted annual average emissions, Kern County (cells do not add to column totals due to rounding error).*

Year	Emission category	Emission type[1]						
		TOG	ROG	CO	NOx	SOx	PM	PM10
1996	Stationary	180	66	28	110	11	14	10
	Area-Wide	100	30	46	2	0	160	82
	Mobile	53	47	410	77	2	6	5
	Natural	2	1	16	0	-	3	3
	Total	340	140	500	190	13	180	100
2010	Stationary	160	59	31	110	12	16	12
	Area-Wide	110	32	48	3	0	170	90
	Mobile	30	27	260	54	2	5	5
	Natural	2	1	16	0	-	3	3
	Total	300	120	360	170	14	200	110

Source: California Air Resources Board 1999

[1] TOG: total organic gases; ROG: reactive organic gases; CO: carbon monoxide; NOx: nitrogen oxides; SOx: sulfur oxides; PM: particulate matter; PM10: particulate matter less than or equal to 10 microns (*appendix D*).

Implications

DOF predicted that the population of Kern County would more than double between 2000 and 2040. Growth is spilling over the Tehachapi Mountains from Los Angeles into Kern County. The forces driving this growth include a median home price of $85,000, abundant office and industrial space, low taxes for business, inexpensive utilities, and proximity to southern California marketplaces (Kern Economic Development Corporation 1997). Plans for development in Kern County in 1995 included 14 projects that would accommodate 256,000 people. None of the projects planned to tap new sources of water (Arax 1995). It is assumed that new developments will siphon water from old sources already stretched thin by existing residents, farmers, and manufacturers (Arax 1995).

Besides the lack of new water supplies, there are questions about the feasibility of developments that threaten habitat of endangered species such as the California condor and the San Joaquin kit fox (Arax 1992). Air quality will also be affected as people drive from these new bedroom communities into Los Angeles to work.

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Kings County

- Agriculture and related industries dominate the economy of this rural county.
- Government is a major employer in the county with more than one quarter of total jobs.
- After San Benito County, this county has the smallest population of all the counties in the assessment.

History

At the time of entry of Whites in the San Joaquin Valley, the territory comprising what later became Tulare and Kings Counties had a dense Indian population with at least two major tribal groups, the Yokuts and the Piutes (Menefee and Dodge 1913). The original inhabitants of the Kings County area were the Tache tribe of the

Yokut Indians (www.sjvls.lib.ca.us/kings/kingshistory.html). The Indians hunted wild game, gathered salt from the tules, and fished in the ancient Lake Tulare. They made trips to the mountains and foothills to gather acorns, pine nuts, and pine needles (www.calflytech.com/kingshistory/tachis/index.html). Acorns were the staple food in their diet (Menefee and Dodge 1913).

One of the first incorporated communities was Lemoore. Its success was assured with the arrival of the Southern Pacific Railroad in 1877. Another permanent community was begun in 1877 along the railroad tracks and was named Hanford after the paymaster of the Southern Pacific. The railroad laid out the townsite (Menefee and Dodge 1913). Hanford was incorporated in 1891 (www.sjvls.lib.ca.us/kings/kingshistory.html), and it is the chief city and county seat of Kings County. In 1893, Kings County was formed out of the western half of Tulare County (www.csac.counties.org) (*fig. 99*). Its name is derived from the Kings River, which was discovered in 1805 by an exploring expedition and named Río de los Santos Reyes (River of the Holy Kings). The river was also the principal source of water for irrigation, which was started in 1872 (Menefee and Dodge 1913). Settlers were attracted to the western portion of Tulare County by the rich soil and the opportunities for farming and stockraising (Menefee and Dodge 1913).

Figure 99—Kings County (shaded area) is north of Kern County.

Source: 50 Individual States—Counties 1995

Although the arrival of the railroad led to the development of communities in Kings County, it also led to conflict. In 1880, the Mussel Slough tragedy occurred just west of Hanford. Settlers employed by the railroad to build irrigation ditches and homes on Federally granted railroad property wanted to purchase some of the property. The settlers were to buy the land at government prices of $2.50 an acre, but the railroad set prices at $25 to $35 an acre, in effect, asking the settlers to pay for the results of their own labor in improving the land (www.calflytech.com/kingshistory). A court decision made in favor of the railroad granted title to the land and meant the settlers would be ejected if they did not pay the price set by the railroad land appraisers. The settlers refused to move off the land and a battle ensued where five men were killed and others wounded. Although some settlers went to jail for resisting Federal marshals, the railroad eventually lowered the price of the land. The battle at Mussel Slough stimulated Frank Norris into writing *The Octopus*, a novel about the Central Valley's wheat era with Southern Pacific as the villain (Robinson 1955). It is also thought that the Mussel Slough tragedy helped inspire a series of train robberies in the Valley between 1889 and 1892 (Robinson 1955). The tragedy led to legal reform of railroad land and settlement policies (www.sjvls.lib.ca.us/kings/kingshistory.html).

In 1908, 100 square miles of territory were added to the county from Fresno County (www.csac.counties.org). One of the most interesting features of the region was the Tulare Lake. It was 44 miles long from north to south and 27 miles wide (Robinson 1955). Others report an even larger expanse of water of up to 80 miles in length in 1858 (Menefee and Dodge 1913). In the 1870s, much of the water was diverted into irrigation canals and the lake receded. As the waters vanished, settlers known as "Lakelanders" were attracted to the area where enormous yields of wheat and barley were recorded (Menefee and Dodge 1913). What was once lake bottom became some of the richest agricultural land in the world. The building of Pine Flat Dam and Reservoir ensured the lake's demise (www.calflytech.com/kingshistory). By 1895, there was no lake, but melting snows from the Sierra Nevada threatened agriculture and those who had not built good levees saw their thousands of acres and barns submerged (Menefee and Dodge 1913).

Ranching and farming dominate the county's economy, as they have since 1893. The first vineyard was established in 1890, and grapes continue to be an important crop in the region. The dairy industry was founded in the county in 1889 (Menefee and Dodge 1913). When it was learned that alfalfa was great forage for cattle, cheese making prospered. Butter was also an important product for the county. Dairy farming continues to be an important part of the county's economy (www.sjvls.lib.ca.us/kings/kingshistory.html).

Kings County Today

Kings County is mostly level farmland crossed by the California Aqueduct and a number of other irrigation waterways. It is estimated that 550,000 acres of agricultural land in Kings County are irrigated (County of Kings 1993).

The county owns and maintains three parks, which are regionally oriented and located in the northern portion of the county apart from urban concentrations (County of Kings 1993). According to the 1990 U.S. Census, the county's four incorporated cities—Hanford, Lemoore, Corcoran, and Avenal—contain 67,653 persons or 67 percent of the total county population (County of Kings 1993).

Sociodemographic Characteristics

Projected Population—DOF is the only agency that calculates population projections for Kings County (*table 71*). An increasing population is expected throughout the forecast period. Over time the decennial increases grow larger. For example, DOF projects an increase of approximately 24,000 people in the county from 1990 to 2000 versus an increase of approximately 42,000 people from 2030 to 2040.

Table 71—*Population projections, Kings County, 1990-2040.*

Source	1990	2000	2010	2020	2030	2040
U.S. Census	101,469[1]	129,461	-	-	-	-
DOF	102,238[2]	126,672	154,617	186,611	223,914	265,944

Source: United States Census Bureau 1990a and 2000, State of California Department of Finance 1998

[1] Data from April 1.

[2] Data from July 1.

Ethnic and Racial Diversity—In 1990, Kings County had a White majority. By 2000, Hispanics were the largest ethnic group in the county followed by Whites, Blacks, Asians, and American Indians (*table 72*).

Table 72—*1990 and 2000 population, Kings County.*

	1990	2000
	---------- Percent	----------
Non-Hispanic White	53.6	41.6
Hispanic all races	34.1	43.6
Non-Hispanic Black	7.6	8.0
Non-Hispanic Asian	3.4	3.1
Non-Hispanic American Indian	0.9	1.0
Non-Hispanic other	0.4	0.2
Non-Hispanic two or more races	N/A	2.4

Source: United States Census Bureau 1990a, 2000

In 1990, 14.1 percent of Kings County's population was foreign-born. Thirty-one percent of residents age 5 and older spoke a language other than English at home. Of those, the majority (79.8 percent) spoke Spanish, and about one-fifth (20.2 percent) spoke a language other than English or Spanish (United States Census Bureau 1990b).

Linguistic diversity is also reflected within the schools in the region. The majority of LEP students in Kings County public schools speak Spanish—mirroring languages spoken at home—or a selection of other languages, and Hmong (*fig. 100*). (Other languages include Vietnamese, Cantonese, Pilipino, Khmer, Korean, Armenian, Mandarin, Lao, Russian, Punjabi, Arabic, Mien, Farsi and other languages of China and the Philippines.) In 1997-98, 16 percent of Kings County's public school students were LEP.

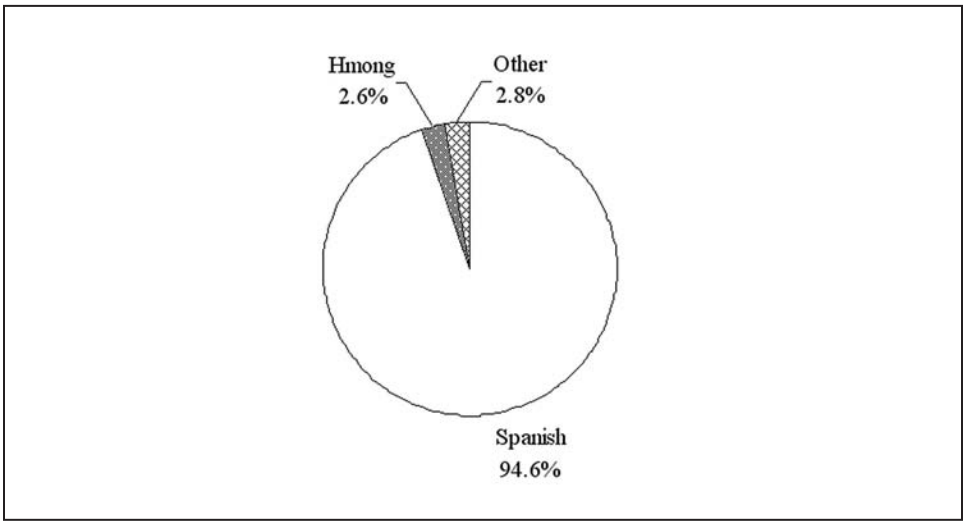


Figure 100—Limited-English-Proficient (LEP) students in Kings County public school districts, by language, 1997-1998.

Source: California Department of Education 1998b

Projected Ethnic and Racial Diversity—As the population in Kings County increases, racial and ethnic diversity are projected to increase through 2040. Hispanics, Asians, and Blacks are expected to increase as a percentage of the population, while Whites and American Indians are projected to decrease as a percentage of the total population (*fig. 101*).

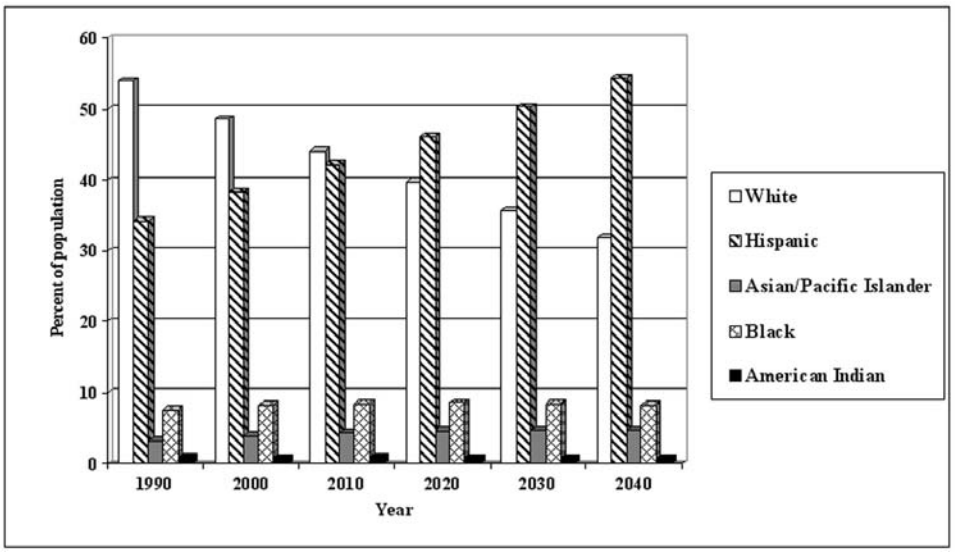


Figure 101—Racial and ethnic diversity trends for Kings County.

Source: State of California Department of Finance 1998

The proportion of Whites is projected to decrease by approximately 22 percent through the forecast period, while Hispanics are projected to increase by slightly more than 20 percent. Asians and Blacks are projected for small increases as a proportion of the population, while American Indians are projected for a marginal decrease (*table 73*).

Table 73—*Percent race/ethnicity and percent change in Kings County, 1990-2040.*

Racial/ethnic group	1990	2000	2010	2020	2030	2040	Cumulative percent change
	Year						
White	53.96 -	48.61 (-5.36)	44.11 (-4.50)	39.86 (-4.24)	35.72 (-4.15)	31.93 (-3.78)	-22.03
Hispanic	34.18 -	38.33 (4.15)	42.18 (3.85)	46.13 (3.94)	50.35 (4.23)	54.38 (4.03)	20.21
Asian/Pacific Islander	3.34 -	3.93 (0.59)	4.39 (0.46)	4.57 (0.17)	4.69 (0.12)	4.72 (0.03)	1.38
Black	7.63 -	8.29 (0.66)	8.45 (0.16)	8.61 (0.16)	8.47 (-0.15)	8.25 (-0.22)	0.62
American Indian	0.89 -	0.85 (-0.04)	0.87 (0.02)	0.83 (-0.04)	0.78 (-0.05)	0.72 (-0.06)	-0.17

Source: State of California Department of Finance 1998

Along with projected changes in race and ethnicity, changes in the area population's age are projected. Projected median age for Kings County residents varies by race/ethnicity and gender. Females are projected to have higher median ages in all ethnic groups except Hispanics where the projected median age for females is actually less than it is for males. American Indians have the highest increase in projected median age between 1990 and 2040 (from 24.5 to 40 years), followed by Whites (from 31 to 35.5 years), Blacks (from 27 to 31.5 years) and Asians (from 26.5 to 31.5 years) (*fig. 102*). The county's Hispanic population shows the least increase (from 23.5 to 24.5 years).

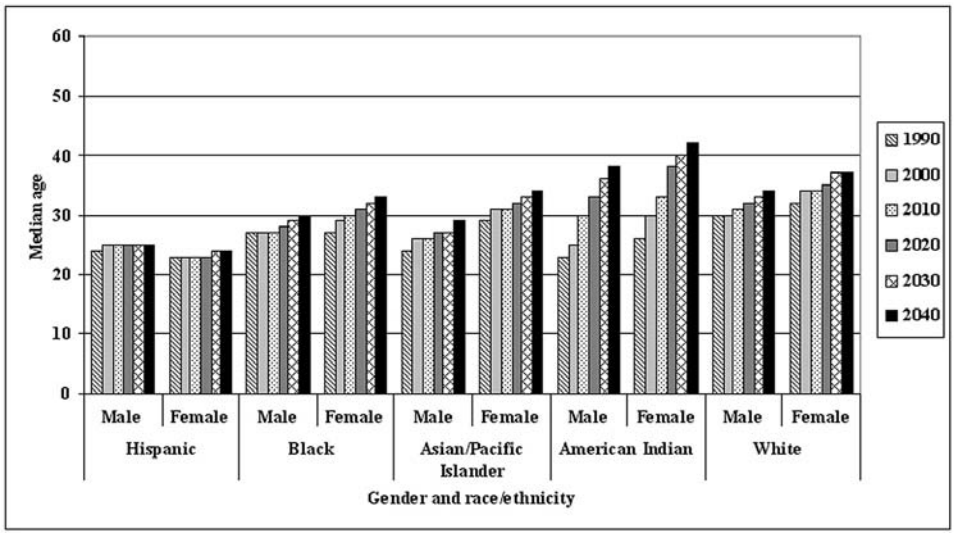


Figure 102—Median age by gender and race/ethnicity, Kings County, 1990-2040.

Source: State of California Department of Finance 1998

Development and Real Estate

Building trends in Kings County from 1987 to 1998 show that residential construction in incorporated areas accounted for the majority of construction in the county during this period (*fig. 103*). All types of construction plummeted with the recession, but began to recover in 1996. Residential construction in unincorporated areas was most affected by the recession. Post-recession recovery in construction was slow, but evident.

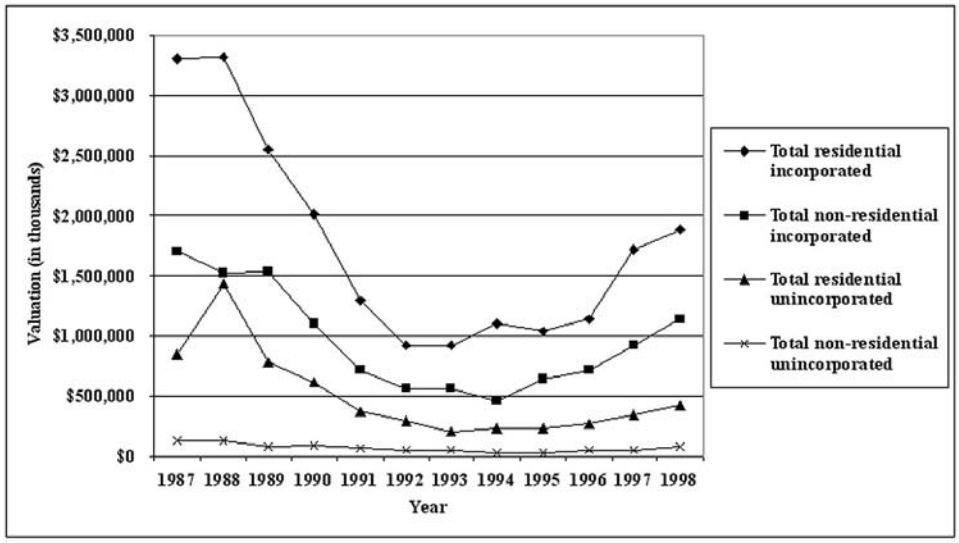


Figure 103—Building trends, Kings County, in 1998 dollars, 1987-1998.

Source: Construction Industry Research Board 1988-1999

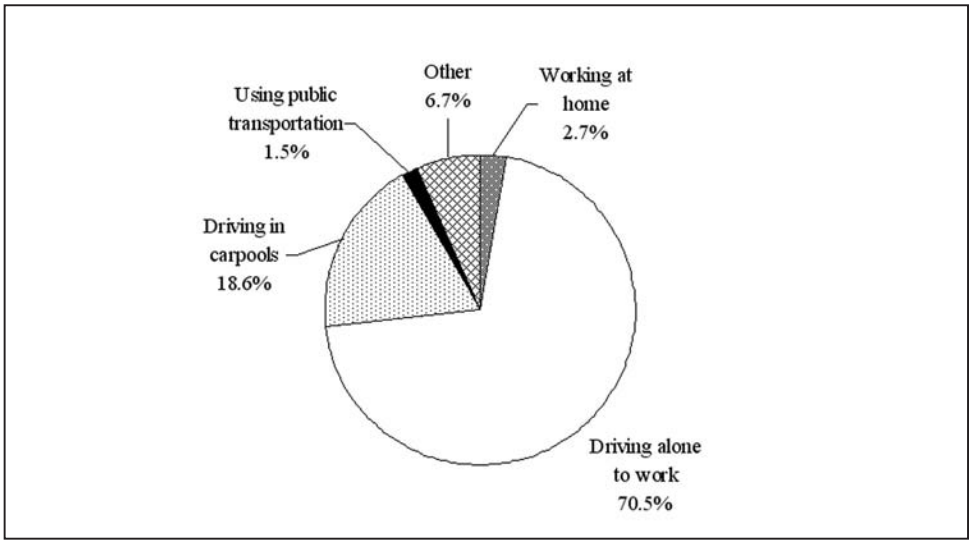
In 1990, Kings County had 29,082 households and 30,843 housing units. The vast majority (94.3 percent) of housing units were occupied; a few (5.7 percent) were vacant (United States Census Bureau 1990a). Of the occupied housing units, a slight majority (52.9 percent) were owner-occupied; however, 47.1 percent were renter-occupied (United States Census Bureau 1990a). The median value of owner-occupied housing units in 1990 was $70,700 and the median rent was $411 per month.

Quality of Life Indicators

Transportation, Commuting, and Employment—In 1990, there were 36,943 workers age 16 and older in Kings County, and an average of 1.7 vehicles per household. Slightly more than 15 percent of Kings County residents worked outside the county. The majority (70.5 percent) of workers drove to work alone although some carpooled (18.6 percent) (*fig. 104*). Very few used public transportation. The average travel time to work was 17.5 minutes compared to the average of 20.3 minutes for the Central Valley counties in this assessment.

Kings County has a high level of truck travel, much of it related to the local agricultural economy. Because heavy trucks do more damage to roads than cars, county roads are subject to rapid deterioration (County of Kings 1993).

Figure 104—Commuting patterns, workers 16 and older, Kings County, 1990.



Source: United States Census Bureau 1990b

The county's leading industry is agriculture with cotton/cottonseed and milk as its dominant agricultural products. Many of the manufacturing jobs in the county are agriculture-related (Munroe and Jackman 1997). The market value of agricultural products sold increased to $693,677,000 from 1992 to 1997, an increase of 19 percent (United States Department of Agriculture 1997). Kings County is 18th in the nation in the total value of agricultural products sold (United States Department of Agriculture 1997). Approximately 95 percent of the land in the county is privately owned (County of Kings 1993).

Government has a strong presence in the county with two State prisons at Corcoran and one at Avenal accounting for a third of all government jobs. Lemoore Naval Air Station is the largest master jet Naval Air Station in the world and employs 600 civilian employees (Munroe and Jackman 1997). Other nonfarm employers include a processing plant for cottonseed and safflower oils, a hazardous waste treatment and disposal facility, tomato products canning factories, and an automobile tire manufacturer (County of Kings 1993). Kings County has had a consistently higher unemployment rate than the State as a whole due to the seasonal nature of agriculture and dependent industries such as food processing (Munroe and Jackman 1997).

Education—Kings County serves the largest number of students in its elementary schools (*table 74*). The county has more elementary schools (27) than middle and high schools (7 and 5, respectively). Average enrollment per school is greatest at the high school level, which is the pattern across the assessment area and all counties. Kings County serves slightly less than 1 percent of the assessment area's school enrollments. County schools have the 25th highest enrollment overall and they are 21st in highest average enrollment per school. Students in 2nd through 11th grade were tested using the Stanford 9 at 35 of the county schools. Kings County's ranking in academic performance for 1999 was a mean of 5.09 out of 10 (based on the similarity index, www.cde.ca.gov), indicating average performance compared to similar schools. Although 28.5 and 20 percent of schools in the county performed well below or below average compared to similar schools, 17.2 percent were well above average and 17.2 percent were above average.

Table 74—*Enrollment and number of schools, Kings County, 1998-1999.*

Type of school	Total enrollment	Percent of total enrollment	Number of schools	Average enrollment/school
Elementary	13,782	57.6	27	510
Middle/Junior High	3,976	16.6	7	568
High School	6,169	25.8	5	1,234
Total	23,927	100.0	39	-

Source: California Department of Education 1998a

Health Care—The largest number of health care establishments in the county deliver ambulatory health care services, followed by nursing and residential care (*fig. 105*). There are no social assistance facilities, or hospitals in the county as reported by the U.S. Census Bureau. However, the county has four hospitals, representing 1.0 percent of the assessment area's total hospitals (ahd.tool.net/list.php3/mstate=ca). The majority (76.9 percent) of the hospitals are nonprofit, with the balance classified as for-profit (23.1 percent) facilities. For those hospitals with reported data (three hospitals), a total of 168 beds and 32,483 total patient days were recorded in 1999. The county ranked 20th in number of hospitals, compared to its 25th place ranking in population.

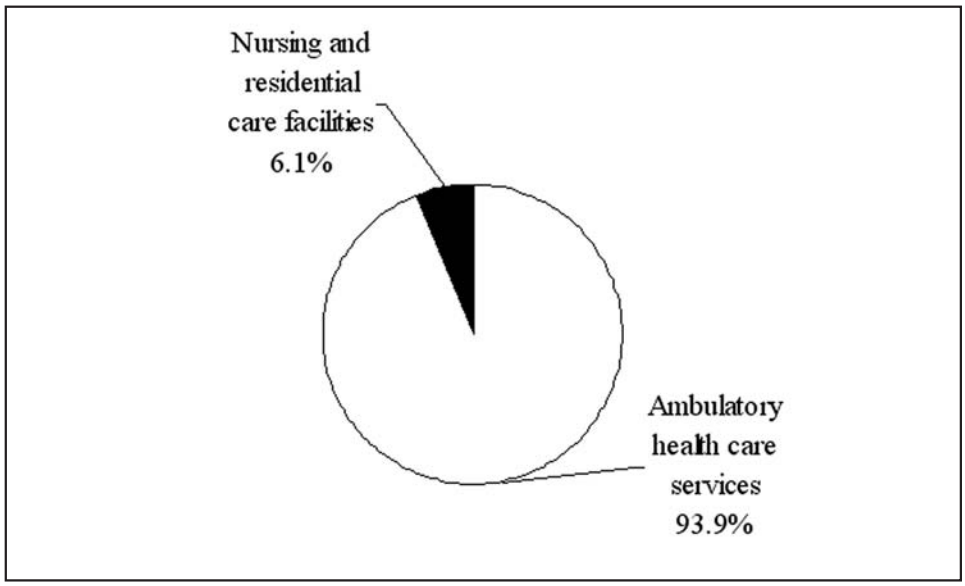


Figure 105—Health care and social assistance establishments, Kings County, 1997.

Source: United States Census Bureau 1999a

Recreation and Tourism—Among the assessment area's 26 counties, Kings ranked 25th in the 1997 economic census in accommodations and food services, and 24th in arts, entertainment and recreation (United States Census Bureau 1999b, 1999c). A total of 156 accommodation and food-services establishments, with $65,128,000 in receipts, was reported. Arts, entertainment, and recreation services involved 13 establishments, with receipts unreported. Aside from the proximate National Forest lands, recreational opportunities are sparse. There is an urban adventure park offering miniature golf, bumper boats and batting cages (www.adventurepark.com), and the Los Robles Adobe, a restored adobe home built in 1849 (Thomas Bros. Maps 1998).

Environmental Indicators

Water Quality—Kings County crosses two watersheds: the Upper Los Gatos-Avenal, and the Tulare-Buena Vista Lakes (www.epa.gov/surf3/surf98/county.html). (Watersheds frequently cross county boundaries. Therefore, some counties may include watersheds that are also located in other counties.) The Tulare-Buena Vista Lakes watershed was assigned a "6" by the EPA, indicating "more serious water quality problems and high vulnerability to pollution stressors." (According to the EPA's Index of Watershed Indicators procedures, a pollution stressor includes aquatic/wetland species at risk, toxic loads above limits, urban runoff potential, agricultural runoff potential, population change, hydrologic modification, estuarine pollution susceptibility, and atmospheric deposition.) Data are not available for the Upper Los Gatos-Avenal watershed.

Air Quality—Kings County has the 25th largest population of the 26 counties, paired with low emissions in all categories except particulates where the county ranks 15th highest (*table 75*). The majority of emissions are projected for marginal decreases dependent upon emission type. Particulates are expected to increase, primarily from area-wide sources, according to the California Air Resources Board (1999).

Table 75—*1996 estimated and 2010 forecasted annual average emissions, Kings County (cells do not add to column totals due to rounding error).*

Year	Emission category	Emission type[1]						
		TOG	ROG	CO	NOx	SOx	PM	PM10
1996	Stationary	6	3	2	10	1	3	2
	Area-Wide	100	16	22	0	0	67	34
	Mobile	10	9	64	13	0	1	1
	Natural	0	0	0	-	-	0	0
	Total	120	28	88	23	1	70	36
2010	Stationary	8	5	2	12	1	3	2
	Area-Wide	100	17	27	1	-	68	35
	Mobile	6	6	41	8	0	1	1
	Natural	-	-	-	-	-	-	-
	Total	120	27	71	21	1	71	37

Source: California Air Resources Board 1999

[1] TOG: total organic gases; ROG: reactive organic gases; CO: carbon monoxide; NOx: nitrogen oxides; SOx: sulfur oxides; PM: particulate matter; PM10: particulate matter less than or equal to 10 microns (*appendix D*).

Implications

One of the primary issues to be resolved in planning for future physical growth is the amount of new development that can be accommodated (County of Kings 1993). Growth in the county is guided by certain assumptions. These assumptions

center around the nature and location of future growth as the county shifts from agriculture to a service-oriented economy. Growth is likely to be limited by sewer and water system capacities and agricultural preserve lands surrounding rural communities. While agriculture will remain the primary industry in the county, Lemoore Naval Air Station, the two prisons (and a state prison drug rehabilitation facility), and industrial and commercial activities will grow in economic importance (County of Kings 1993).

While Kings County is not a recreational destination, it does face a major growth-limiting factor: the availability of water. A major portion of Kings County has been identified by the California Department of Water Resources as having a critical groundwater overdraft condition (County of Kings 1993). It is estimated that developing vacant lands with residential, commercial, and industrial land uses will result in a 29 percent increase in the demand for water (County of Kings 1993). King County's future growth, similar to the other Central Valley counties, is constrained by environmental limits.

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Merced County

- After Fresno County, Merced County has the largest population of Hmong refugees.
- The county is home to the Castle Air Force Base that closed in September 1995.
- Merced is the location of the 10th campus of the University of California, slated to open in 2004 and grow to 19,000 students in 2035.

History

The Yokuts inhabited the entire San Joaquin Valley. In the early 1800s, the Northern Valley Yokuts, who inhabited the Merced County area (*fig. 106*), were estimated to number 25,100 to 31,404 (Cabezut-Ortiz 1987). Very little is known about them because of their rapid disappearance due to disease, the establishment of missions, and gold seekers who disrupted archeological evidence. The Yokuts were hunter-gatherers and skilled basket makers.

Gabriel Moraga, soldier of Spain, was the first explorer to enter the area on an expedition to catch Indian horse thieves in 1806 (Outcalt 1925). Moraga named the San Joaquin Valley after the father of the Virgin Mary and named the river the River of Mercy (Cabezut-Ortiz 1987). The first White person in the San Joaquin Valley was Jedediah Smith of New York, who was on a fur trapping expedition in 1827. John Fremont passed through Merced County in 1844 on one of his geographical surveying expeditions, and later he owned a land grant in the county, familiarly called the Mariposa Grant (Outcalt 1925). When the first White men settled on the Merced River, there were no Indians on the river, and John Fremont saw none when he passed up the San Joaquin River in 1844 (Elliott and Moore 1881). A large tribe was located on the San Joaquin River at one point, but a flood

almost destroyed the tribe, so the Indians tended to live in the mountains toward the east by the time White men arrived (Elliott and Moore 1881).

When Mexico gained independence from Spain in 1821, there were 20 missions, 4 presidios, and 3 pueblos in California, but none were located in the San Joaquin Valley. However, horses and cows, which had been introduced to California by the Spanish, multiplied rapidly so that vast herds roamed the valley floor and foothills (Cabezut-Ortiz 1987). When the missions were secularized, the horses and cows were either driven off or slaughtered, and the sheep were left for predators. The cattle that remained formed the basis of the economy during the rancho period (Cabezut-Ortiz 1987). When gold miners passed through the region to the foothills of the Sierra, change and diversity came to the region. The western part of the region was inhabited by the Spanish land grant rancheros. The east was teeming with miners from all parts of the world. The plains in the middle were forgotten until those who did not get rich in the mines turned to their former trades, primarily agricultural. Agriculture became the mainstay of the economy.

The county was formed in 1855 (Outcalt 1925). The "plains" of Merced County made it especially suitable for cattle and later for wheat. Cattle were the basis of practically all the fortunes built up in the first 15 years of its history (Outcalt 1925).

Figure 106—Merced County (shaded area) is north of Fresno County.

Source: 50 Individual States—Counties 1995

The San Joaquin and Merced Rivers have their sources in the mountains and were the only year-round water supplies in a region with an average of 10 to 11 inches of rainfall a year (Outcalt 1925). Irrigation played a significant role in the success of agriculture in the county, allowing the transition from grains to a variety of agricultural products (Outcalt 1925).

The railroad came to the county in 1869, facilitating trade between San Francisco and the towns in the San Joaquin Valley (Outcalt 1925). The Southern Pacific Railroad and the San Joaquin River run through the center of the county from north to south. Both the railroad and the river were important transportation routes for the shipment of produce in the early days of the county (Elliott and Moore 1881).

Another important force in the county was the Castle Air Force Base. Prior to 1941, there was an Army Flying School in the county, 5 miles north of Merced. With events in Pearl Harbor, the school was transformed into a major training base. At the end of the war, the base was deactivated. In 1946, the base was reopened and named Castle Field (Cabezut-Ortiz 1987).

The county has been ethnically diverse since its beginning with successive waves of immigrants from Armenia, Europe, Mexico, China, and Japan during the Gold Rush and from the Dust Bowl states of the American Southwest during the Great Depression (Outcalt 1925, Lindsey 1983). Beginning in the early 1980s, Merced County became a destination for Southeast Asian refugees from Thailand and the hill areas of northern Laos. The Hmong are the largest ethnic group that has come to Merced from Laos. According to Hmong community leaders, the refugees were originally settled in places such as Rhode Island and Minnesota, but many moved to the Central Valley counties of Fresno, Merced, and San Joaquin. The Hmong found the warm climate more tolerable, and they sought an agricultural area where they thought they would have a better chance of finding work (Lindsey 1983, Ng 1993, The New York Times 1983).

Merced County Today

Merced is at a crossroads. Merced County, like many other Central Valley counties, is facing rapid population growth. The county must decide whether it will remain predominantly agricultural or whether it will give way to non-agricultural industry.

Merced County is located in the heart of the San Joaquin Valley. According to county reports, 90 percent of the Hmong receive some sort of government aid (The New York Times 1983). The struggles of the Hmong in this country are significant. The Hmong language was not written until the 1950s, and only a limited number of Hmong from Laos received any formal education (Miyares 1997). [Hmong history resides in their oral traditions. As a generation of Hmong students enters universities, their oral traditions are subject to change. Hmong students are drawing from external sources, in some cases fragments, distortions, or mediated versions of their oral traditions (Ng 1993).] However, in one generation Hmong children are entering universities in growing numbers (Miyares 1997). The county will soon be home to the 10th University of California campus. The University of California, Merced, will be the first American research university built in the 21st century (www.ucmerced.edu).

Sociodemographic Characteristics

Projected Population—DOF and Merced County Association of Governments (MCAG) calculated population projections for Merced County (*table 76*). An increasing population is expected through the forecast period. Except for the years 1990 and 2000, MCAG projections are higher than DOF projections. The difference between the two sets of projections grows from approximately 9,500 people in 2010 to slightly more than 18,000 people in 2020.

Table 76—*Population projections, Merced County, 1990-2040.*

Source	1990	1995	2000	2005	2010	2015	2020	2025	2030	2040
U.S. Census	178,403[1]	-	210,554	-	-	-	-	-	-	-
DOF	180,182[2]	-	215,256	-	264,420	-	319,785	-	385,120	460,020
MCAG	178,403	197,900	215,256	242,846	273,923	304,784	337,935	373,170	-	-

Source: United States Census Bureau 1990a and 2000, State of California Department of Finance 1998, Merced County Association of Governments 2000

[1] Data from April 1.

[2] Data from July 1.

Ethnic and Racial Diversity—In 1990, slightly more than half of Merced County's population was White, and slightly more than one-third of the county's population was Hispanic. Blacks, Asians, and American Indians represented less than 15 percent of the total population. By 2000, Hispanics were the largest ethnic group followed by Whites, Asians, Blacks, and American Indians (*table 77*).

Table 77—*1990 and 2000 population, Merced County.*

	1990	2000
	----------Percent ----------	
Non-Hispanic White	54.2	40.6
Hispanic all races	32.6	45.3
Non-Hispanic Black	4.4	3.6
Non-Hispanic Asian	7.9	6.8
Non-Hispanic American Indian	0.6	0.5
Non-Hispanic other	0.3	0.2
Non-Hispanic two or more races	N/A	2.9

Source: United States Census Bureau 1990a, 2000

In 1990, 19.8 percent of Merced County's population was foreign-born. Thirty-six percent of residents age 5 and older spoke a language other than English at home. Of those, the majority (69.4 percent) spoke Spanish and slightly less than one-third (30.6 percent) spoke a language other than English or Spanish (United States Census Bureau 1990b).

Linguistic diversity is also reflected within the schools in the region. The majority of LEP students in Merced County public schools speak Spanish or Hmong—mirroring the languages spoken at home (*fig. 107*). In 1997-98, 31.8 percent of Merced County's public school students were LEP.

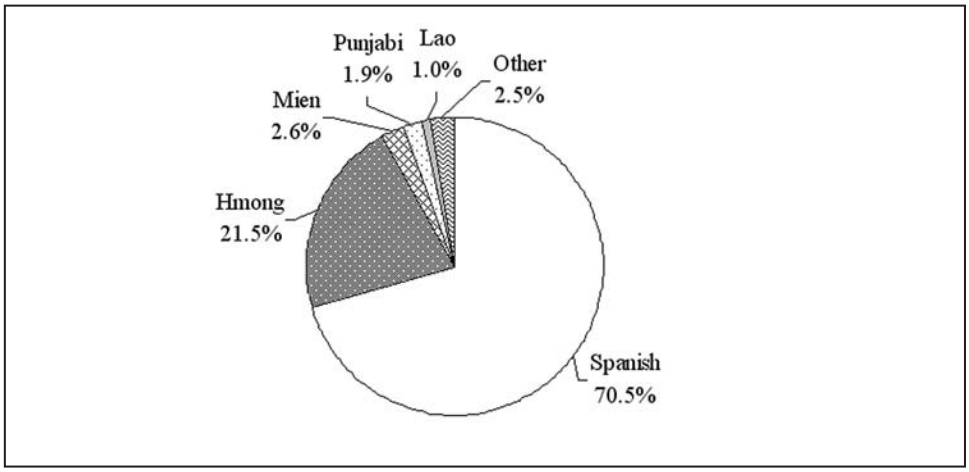

Figure 107—Limited-English-Proficient (LEP) students in Merced County public school districts, by language, 1997-1998.

Source: California Department of Education 1998b

Projected Ethnic and Racial Diversity—As Merced County's population increases, ethnic and racial diversity are also projected to increase. As a proportion of the population, Hispanics and Asians are projected to increase, while Whites, Blacks, and American Indians are projected to decrease (*fig. 108*).

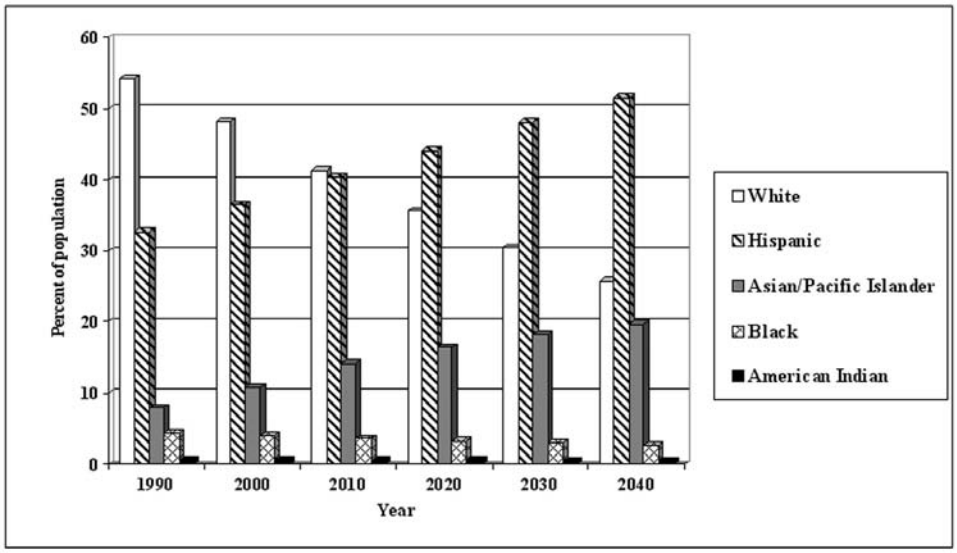

Figure 108—Racial and ethnic diversity trends for Merced County.

Source: State of California Department of Finance 1998

The proportion of Whites is expected to decrease by slightly more than 28 percent through the forecast period, while Hispanics and Asians are expected to increase by approximately 19 and 12 percent, respectively. The Black and American Indian proportions of the population have projected decreases of less than 2 percent (*table 78*).

Table 78—*Percent race/ethnicity and percent change in Merced County, 1990-2040.*

Racial/ethnic group	1990	2000	2010	2020	2030	2040	Cumulative percent change
	Year						
White	54.27 -	48.19 (-6.08)	41.37 (-6.82)	35.65 (-5.72)	30.40 (-5.25)	25.78 (-4.62)	-28.49
Hispanic	32.71 -	36.44 (3.73)	40.38 (3.94)	44.18 (3.81)	48.03 (3.85)	51.53 (3.50)	18.82
Asian/Pacific Islander	7.99 -	10.79 (2.80)	14.10 (3.32)	16.38 (2.27)	18.20 (1.82)	19.70 (1.50)	11.71
Black	4.40 -	4.01 (-0.39)	3.62 (-0.39)	3.31 (-0.31)	2.95 (-0.36)	2.62 (-0.33)	-1.77
American Indian	0.63 -	0.58 (-0.06)	0.53 (-0.05)	0.48 (-0.05)	0.42 (-0.06)	0.37 (-0.06)	-0.27

Source: State of California Department of Finance 1998

Along with projected changes in race and ethnicity, changes in the area population's age are projected. Projected median age for Merced County residents varies by race/ethnicity and gender. Females are projected to have higher median ages except among Hispanics where the projected median age for males and females is the same. American Indians have the highest projected median age

between 1990 and 2040 (from 31 to 47.5 years), followed by Whites (from 32 to 42.5 years) and Blacks (from 26 to 34 years) (*fig. 109*). Asians have the lowest projected median age during the forecast period (from 17 to 25.5 years). The county's Hispanic population shows a smaller projected increase through the forecast period (from 22 to 25 years).

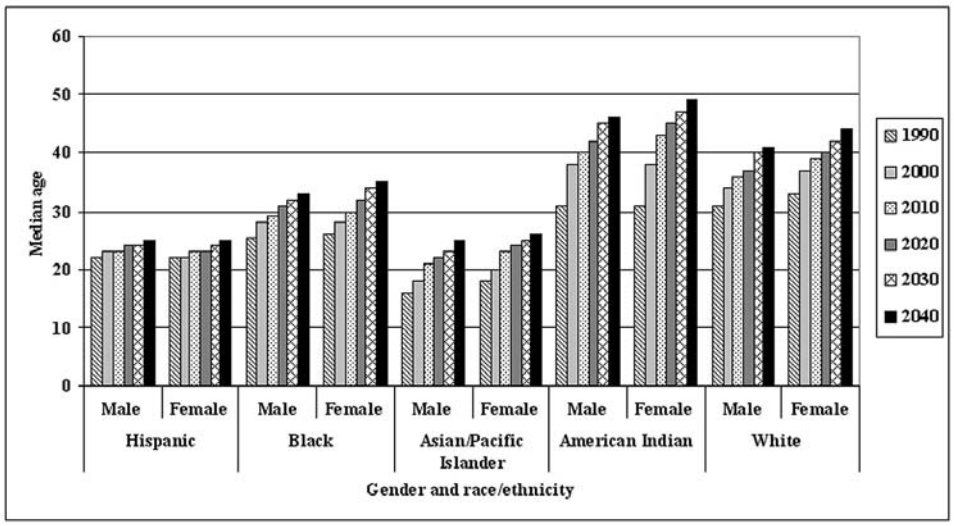

Figure 109—Median age by gender and race/ethnicity, Merced County, 1990-2040.

Source: State of California Department of Finance 1998

Development and Real Estate

Building trends in Merced County from 1987 to 1998 reveal that residential construction in incorporated areas peaked in 1989, but decreased again with the recession (*fig. 110*). Levels of construction in the county were variable. Although the existing housing market was hurt by the base closure which led to the departure of military personnel, new housing sales increased by about 25 percent (Bradshaw 1999).

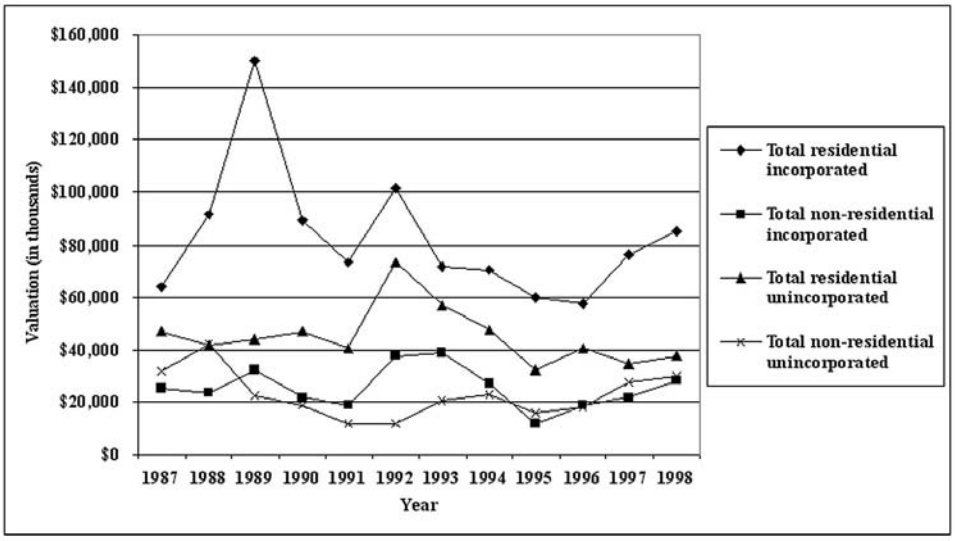

Figure 110—Building trends, Merced County, in 1998 dollars, 1987-1998.

Source: Construction Industry Research Board 1988-1999

In 1990, Merced County had 55,331 households and 58,410 housing units. The vast majority (94.7 percent) of housing units were occupied; a few (5.3 percent) were vacant (United States Census Bureau 1990a). Of the occupied housing units, a slight majority (54.4 percent) were owner-occupied, though 45.6 percent were renter-occupied (United States Census Bureau 1990a). The median value of

owner-occupied housing units in 1990 was $90,800. The median rent in 1990 was $430 per month.

Quality of Life Indicators

Transportation, Commuting, and Employment—In 1990, there were 68,697 workers age 16 and older in Merced County, and an average of 1.8 vehicles per household. Slightly more than 15 percent of Merced County residents worked outside the county. The majority (72.8 percent) drove to work alone, although some carpooled (15.6 percent) (*fig. 111*). Very few used public transportation. The average travel time to work was 16.9 minutes compared to the average of 20.3 minutes for the Central Valley counties in this assessment.

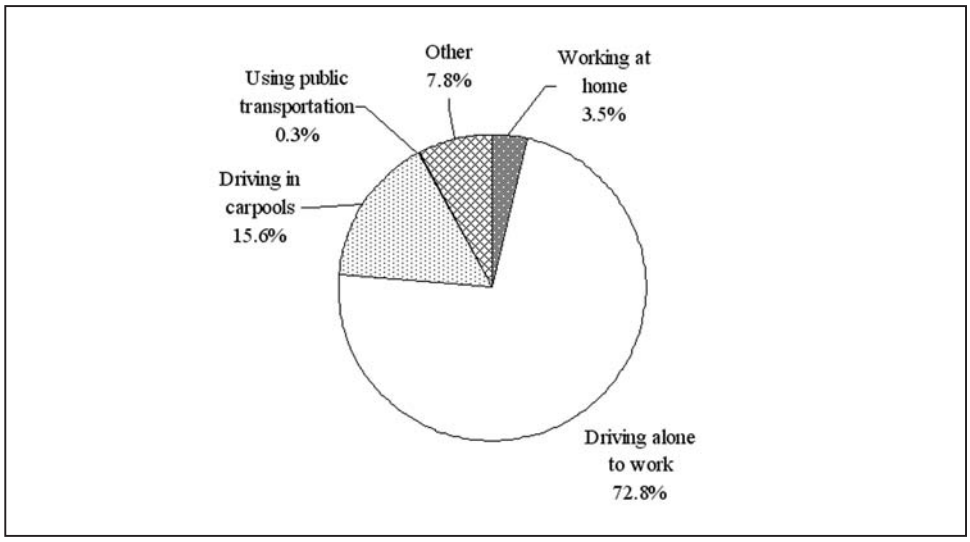

Figure 111—Commuting patterns, workers 16 and older, Merced County, 1990.

Source: United States Census Bureau 1990b

When it was operating as a military base, Castle Air Force Base was the largest employer. The base accounted for 10 percent of county employment, and it was anticipated that its closure would have catastrophic economic consequences for Merced County (Bradshaw 1999). According to Bradshaw (1999), base closure was not catastrophic mainly because the base was integrated rather weakly into the surrounding community. Base employees spent money on the base rather than in local stores, purchasing only chickens and milk locally. Retirees who had to shift spending to local stores mediated the immediate impact of base closure. Base reuse at the former Castle Air Force Base includes a Pacific Telesis Customer Care Center (Munroe and Jackman 1997), as well as a number of small firms. The nearly 7,000 retirees in the Castle area now contribute up to $23 million in new local spending to the private sector.

The county consistently has had one of the highest unemployment rates in California due to its agricultural base (Bradshaw 1999). The closure of Castle Air Force Base caused a 2.5 percentage point increase in unemployment. More serious, however, is the fact that Merced County did not share in the improving employment prospects that favored the rest of the State in the late 1990s (Bradshaw 1999).

Merced County's employment is dominated by agriculture and its related industries. The county is 79.2 percent farmland, with milk as the main agricultural product (Umbach 1997). In addition, the county produces over 65 different agricultural products, many of which are shipped to other countries (Munroe and Jackman 1997). The market value of agricultural products sold increased to $1,273,475,000 from 1992 to 1997, an increase of 40 percent (United States Department of Agriculture 1997). Merced County is 6th in the nation in the total value of agricultural products sold (United States Department of Agriculture 1997).

Education—Merced County serves the largest number of students in its elementary schools *(table 79*). The county has more elementary schools (48) than middle and high schools (13 and 10, respectively). Average enrollment per school is greatest at the high school level, which is the pattern across the assessment area and all counties. Merced County serves slightly less than 1 percent of the assessment area's school enrollments. County schools have the 20th highest enrollment overall, and they are 18th in highest average enrollment per school. Students in 2nd through 11th grade were tested using the Stanford 9 at 66 of the county schools. Merced County's ranking in academic performance for 1999 was a mean of 4 out of 10 (based on the similarity index, www.cde.ca.gov), indicating below average performance compared to similar schools. Although 44 and 21.3 percent of schools in the county performed well below or below average compared to similar schools, 10.6 percent were well above average, and 15.2 percent were above average.

Table 79—*Enrollment and number of schools, Merced County, 1998-1999.*

Type of school	Total enrollment	Percent of total enrollment	Number of schools	Average enrollment/ school
Elementary	26,121	54.6	48	544
Middle/Junior High	8,716	18.2	13	670
High School	13,042	27.2	10	1,304
Total	47,879	100.0	71	-

Source: California Department of Education 1998a

Health Care—The largest number of health care establishments in the county deliver ambulatory health care services, followed by nursing and residential care and social assistance (*fig. 112*). There are no hospitals in the county as reported by the U.S. Census Bureau. However, the county has three hospitals, representing 0.8 percent of the assessment area's total hospitals (ahd.tool.net/list.php3/mstate=ca). All three of the hospitals are nonprofit facilities, with a total of 318 beds and 60,776 total patient days recorded in 1999. The county ranked 22nd in number of hospitals, comparable to its 23rd place ranking in population. The Castle Air Force Base hospital has been turned over to the community and will be used as a clinic for people in the Atwater area where health facilities are limited (Bradshaw 1999).

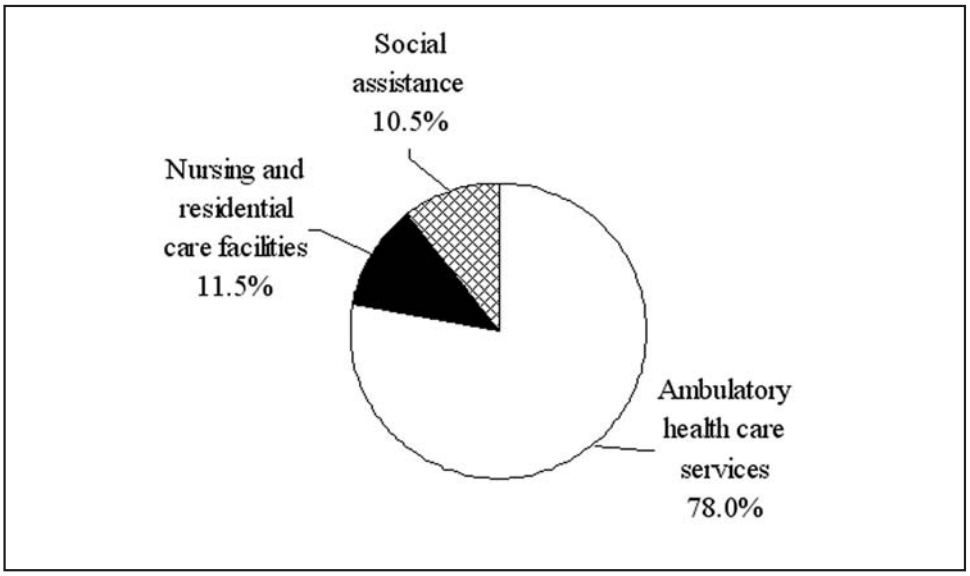

Figure 112—Health care and social assistance establishments, Merced County, 1997.

Source: United States Census Bureau 1999a

Recreation and Tourism—Among the assessment area's 26 counties, Merced ranked 23rd in the 1997 economic census in accommodations and food services, and 23rd in arts, entertainment, and recreation (United States Census Bureau 1999b, 1999c). A total of 269 accommodation and food-services establishments, with $108,370,000 in receipts, was reported. Arts, entertainment, and recreation services involved 29 establishments, with receipts totaling $8,809,000.

Merced is known as the "gateway to Yosemite," and residents can enjoy many recreational opportunities due to the proximity to the Sierra Nevada, Yosemite, and Lake Tahoe, which are within a 4-hour drive (www.co.merced.ca.us/About_Us/index.html). Recreational opportunities within the county's boundaries include the McConnell State Recreation Area, the San Luis National Wildlife Refuge, and the Merced National Wildlife Refuge (www.wildernet.com).

Environmental Indicators

Water Quality—Merced County crosses six watersheds: the Middle San Joaquin-Lower Chowchilla, the Middle San Joaquin-Lower Merced-Lower Stanislaus, the Upper Chowchilla-Upper Fresno, the Upper Merced, the Panoche-San Luis Reservoir, and the Pajaro (www.epa.gov/surf3/surf98/county.html). (Watersheds frequently cross county boundaries. Therefore, some counties may include watersheds that are also located in other counties.) The Middle San Joaquin-Lower Chowchilla, the Middle San Joaquin-Lower Merced-Lower Stanislaus, the Upper Merced, and the Pajaro watersheds were all assigned a "5" by the EPA, indicating "more serious water quality problems but low vulnerability to pollution stressors." (According to the EPA's Index of Watershed Indicators procedures, a pollution stressor includes aquatic/wetland species at risk, toxic loads above limits, urban runoff potential, agricultural runoff potential, population change, hydrologic modification, estuarine pollution susceptibility, and atmospheric deposition.) Data are not available for the Upper Chowchilla-Upper Fresno and the Panoche-San Luis Reservoir watersheds.

Air Quality—Merced County has the 23rd largest population of the 26 counties, paired with the 15th highest total organic gas (TOG) emissions, the 20th highest reactive organic gas (ROG) emissions, the 21st highest carbon monoxide (CO) emissions, the 19th highest nitrogen oxide (NOx) emissions, the 22nd highest sulfur oxide (SOx) emissions and the 9th highest particulates (*table 80*). The majority of emissions are projected for marginal decreases dependent upon emission type. Particulates are expected to increase, primarily from area-wide sources, according to the California Air Resources Board (1999).

Table 80—*1996 estimated and 2010 forecasted annual average emissions, Merced County (cells do not add to column totals due to rounding error).*

Year	Emission category	Emission type[1]						
		TOG	ROG	CO	NOx	SOx	PM	PM10
1996	Stationary	4	3	12	7	1	3	2
	Area-Wide	110	16	40	1	0	85	45
	Mobile	14	13	130	31	1	1	1
	Natural	0	0	0	0	-	0	0
	Total	130	32	180	39	1	90	48
2010	Stationary	4	3	12	7	1	4	2
	Area-Wide	120	19	80	1	-	91	49
	Mobile	8	7	87	21	1	1	1
	Natural	0	-	1	-	-	0	0
	Total	130	29	180	29	2	96	52

Source: California Air Resources Board 1999

[1] TOG: total organic gases; ROG: reactive organic gases; CO: carbon monoxide; NOx: nitrogen oxides; SOx: sulfur oxides; PM: particulate matter; PM10: particulate matter less than or equal to 10 microns (*appendix D*).

Implications

With a projected doubling of the population between 1990 and 2025, Merced County faces many of the same pressures as other counties in the Central Valley. These pressures include the conversion of farmland to urban uses, increased commuting between Merced and counties in the Bay Area, and impacts on air and water quality that come with increased urban development. In addition, the county is home to the 10th University of California campus that "…invariably will become an engine of growth for the region" (Great Valley Center 1998). The University of California's Academic Review Committee anticipates that the university will be at full capacity by 2035 with 19,000 students (Great Valley Center 1998).

Base closure was not catastrophic for the county as predicted, and retail sales in the county have increased rather than decreased (Bradshaw 1999). Merced County's population continues to grow rather than decline after base closure (Bradshaw 1999). Optimism surrounds base conversion plans, which include making the landing strip into a commercial airport, building a prison on one corner of the property (now completed), establishing space education programs for children, and using some of the buildings for university programs (Bradshaw 1999).

As stated earlier, Merced County is at a crossroads and must decide whether to preserve its agricultural economy or make way for non-agriculturally based industry. Not only is Merced County experiencing rapid population growth, the population is ethnically diverse and that diversity is expected to increase. As of 2000, Whites were no longer the majority ethnic/racial group in the county. Merced County faces similar natural resource challenges as the rest of the Central Valley with some additional unknown factors. With the highest percentage of foreign-born residents in the region (almost 20 percent), future impacts upon natural resources are not yet clear. It remains to be seen whether patterns of employment, residential preferences, and recreational choices will be significantly influenced by this foreign-born population; or whether tenure in the United States will coincide with a trend of decreasing agricultural employment and a transition to employment in new industrial and commercial sectors.

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Sacramento County

- The county is home to California's State Capital.
- Sacramento County is the most populous county in the Central Valley.
- Employment in State and local government is nearly double that of the average metropolitan county.
- Agriculture is a significant industry in the county despite its population density.

History

A number of tribes inhabited the territory of Sacramento before the arrival of Europeans. These tribes included the Meewocs, Patweens, Neeshenams, Poosoones, Quotoas, Colomas, Wapummes and many more (Thompson and West 1880). The Indians in the area generally lived on watercourses except when on hunting expeditions. The first White man in the area was likely Jedediah Smith in 1825 when he was leading an expedition of trappers across the Sierra Nevada into the Tulare Valley. The party trapped for beaver from the Tulare to the American River and had their camp near the present site of Folsom (Thompson and West 1880).

In 1848, the region experienced an influx of miners who stopped in the area before continuing northward, leading to a settlement, which became known as Sacramento (*fig. 113*). In November 1848, the area had a transient population of 10,000, which increased as time went on (Thompson and West 1880, Walsh 1946). Before 1844, Sutter's Fort was the principal trading post in upper California. Captain Sutter and others at the Fort decided to map out and build a town on the riverbank 3 miles south of the fort. Sutterville flourished unrivaled until the time gold was discovered and then came into conflict with Sacramento (Thompson and West 1880).

The four rivers that crossed the county (Sacramento, American, Consumnes, and Mokelumne) resulted in a rich soil particularly suitable for agriculture. The rivers also allowed Sacramento to develop into a river port (Walsh 1946). Although the rivers were important to the development of Sacramento agriculturally as well as a transportation node, they had one major disadvantage: flooding. Sacramento was subject to some devastating floods in the 1850s and 1860s as a result of heavy snowfall in the Sierra Nevada and rains in the lowlands (Thompson and West 1880). This led to the development of a series of levees around Sacramento (Thompson and West 1880).

Sacramento was also connected to rail, which led out of the area in five directions (Ing 1905). Sacramento County was incorporated in 1850 as one of the original 27 counties of the State of California, and became the State Capital in 1854 (www.co.sacramento.ca.us). In addition to its title as State Capital, Sacramento is also home to the State Library. The primary intention of its founders was to make a collection of books to assist the Legislature, State officers, and Judges (Thompson and West 1880). It was also hoped that the Library would act as a magnet for scholars and literary figures that would then choose Sacramento as a desirable place of residence (Thompson and West 1880).

The early population of Sacramento, commencing from the discovery of gold, consisted of people from all parts of the world. When the first rush to the mines was over, it became necessary to pursue other activities and many settled into agriculture (Thompson and West 1880). According to Ing (1905), some of the early important agricultural products of the county were fruit (including dried fruits), berries, and grapes. Staple vegetable products of the county in the early part of the 20th century included asparagus, onions, root vegetables, beans, and potatoes. Grain production included wheat, oats, barley, corn, and hay. Poultry and dairy were also important in the early history of the county.

Phenomenal population increase occurred in the county in the 1950s. This was a result of the growth in the local aerospace industry, the expansion of three military installations (Mather Air Force Base, McClellan Air Force Base, and the Army Depot) and the growth in government services within Sacramento County (County of Sacramento 1996).

Sacramento County Today

The city of Sacramento is the seat of government for the State and the county. The county is the most populous and the most densely populated in the Central Valley with 1,200 persons per square mile. However, despite the county's density of population, 61.3 percent of its land area is in farms (Umbach 1997), and its agricultural output is still significant. The market value of agricultural products sold increased to $218,023,000 from 1992 to 1997, an increase of 4 percent (United States Department of Agriculture 1997). The five leading commodities are milk, Bartlett pears, wine grapes, cattle, and turkeys (Umbach 1997).

Figure 113—Sacramento County (shaded area) is north of San Joaquin County.

Source: 50 Individual States—Counties 1995

Sacramento is experiencing major population growth. At least one out of every four residents in the 1990s did not live in the county in 1980 (County of Sacramento 1994). The growth comes from natural increase and net migration. About 60 percent of Sacramento County's growth is a result of net migration (County of Sacramento 1994). The new residents come from a variety of places. About 25,000 Southeast Asians have migrated from Cambodia, Vietnam, and Laos since the early 1980s. New residents continue to come from Mexico and other Spanish-speaking countries, and a small but growing number are emigrating from former Soviet bloc countries (County of Sacramento 1994). There is also substantial movement of Californians from the Bay Area, southern California, and from other states in the country (County of Sacramento 1994).

The population did not increase at the same rate for all age groups in the 1980s. The percentage of "baby boomers" (age 35 to 44) grew the most, followed by children under 10 years of age and seniors (County of Sacramento 1994). As the population has changed, its household composition has also changed. One of three children in the county does not live in a two-parent household. One out of 10 children in Sacramento lives with relatives, primarily grandparents, or with non-relatives. More seniors are living at home, with a decline in the actual number living in group quarters (County of Sacramento 1994). Sacramento County has more divorced and widowed residents as well as a higher proportion of single people when compared to other parts of the State. One in four households in the county consists of a single person, by far the highest rate in the region (County of Sacramento 1994). Sacramento County's birth rate is higher than the State as a whole. One out of three births in the county is to an unmarried woman, and one out of eight births is to a teen mother (County of Sacramento 1994).

Sociodemographic Characteristics

Projected Population—DOF and the Sacramento Area Council of Governments (SACOG) calculated population projections for Sacramento County (*table 81*). The population is expected to increase through the forecast period. SACOG projections are lower than DOF projections by approximately 8,600 people in 2000 and by more than 30,000 in 2020.

Table 81—*Population projections, Sacramento County, 1990-2040.*

Source	1990	2000	2005	2010	2015	2020	2022	2030	2040
U.S. Census	1,041,219[1]	1,223,499	-	-	-	-	-	-	-
DOF	1,049,010[2]	1,212,527	-	1,436,286	-	1,651,765	-	1,884,210	2,122,769
SACOG	-	1,218,860	1,335,283	1,459,952	1,574,420	1,646,045	1,672,908	-	-

Source: United States Census Bureau 1990a and 2000, State of California Department of Finance 1998, Sacramento Area Council of Governments 2001

[1] Data from April 1.

[2] Data from July 1.

Ethnic and Racial Diversity—In 1990, Sacramento County's population was predominantly White, and 11.7 percent was Hispanic. Blacks, Asians, and American Indians represented less than 20 percent of the total population. By 2000, the proportion of Whites in the population decreased although they were still the majority. Blacks, Asians, and American Indians represented 22 percent of the total population (*table 82*).

Table 82—*1990 and 2000 population, Sacramento County.*

	1990	2000
	Percent	
Non-Hispanic White	69.3	57.8
Hispanic all races	11.7	16.0
Non-Hispanic Black	9.0	9.7
Non-Hispanic Asian	8.8	11.4
Non-Hispanic American Indian	1.0	0.7
Non-Hispanic other	0.2	0.3
Non-Hispanic two or more races	N/A	4.2

Source: United States Census Bureau 1990a, 2000

In 1990, 10 percent of Sacramento County's population was foreign-born. In the same year, 16.3 percent of residents age 5 and older spoke a language other than English at home. Of those, 40.5 percent spoke Spanish; however, the majority (59.5 percent) spoke a language other than English or Spanish (United States Census Bureau 1990b).

Linguistic diversity is also reflected within the schools in the region. The majority of LEP students in Sacramento County public schools speak Spanish or Hmong, mirroring the languages spoken at home (*fig. 114*). The variety of Asian dialects represented in 1 percent or more of the student population, as well as the percent who speak Russian, set the county apart as unique in this assessment. In 1997-98, 16.9 percent of Sacramento County's public school students were LEP.

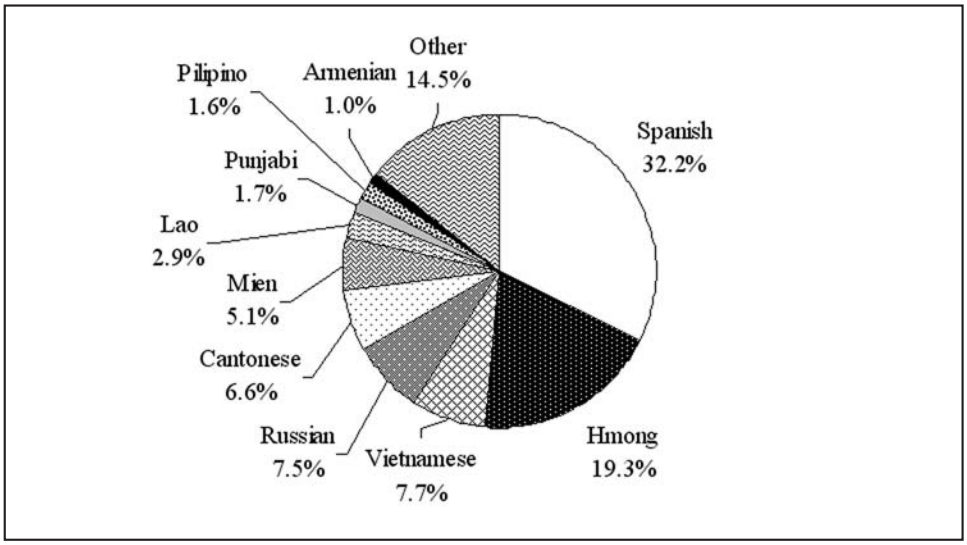


Figure 114—Limited-English-Proficient (LEP) students in Sacramento County public school districts, by language, 1997-1998.

Source: California Department of Education 1998b

Projected Ethnic and Racial Diversity—As Sacramento County's population increases, ethnic and racial diversity are projected to increase as well. Hispanics, Asians, and Blacks are all projected to increase as a proportion of the population, while Whites are projected to decrease (*fig. 115*). The American Indian proportion of the population shows little change through 2040.

The proportion of Whites is expected to decrease by approximately 27 percent through the forecast period, while Asians, Hispanics, and Blacks are projected to increase by approximately 13, 10, and 4 percent, respectively (*table 83*). Little change is expected among the American Indian population across the forecast period.

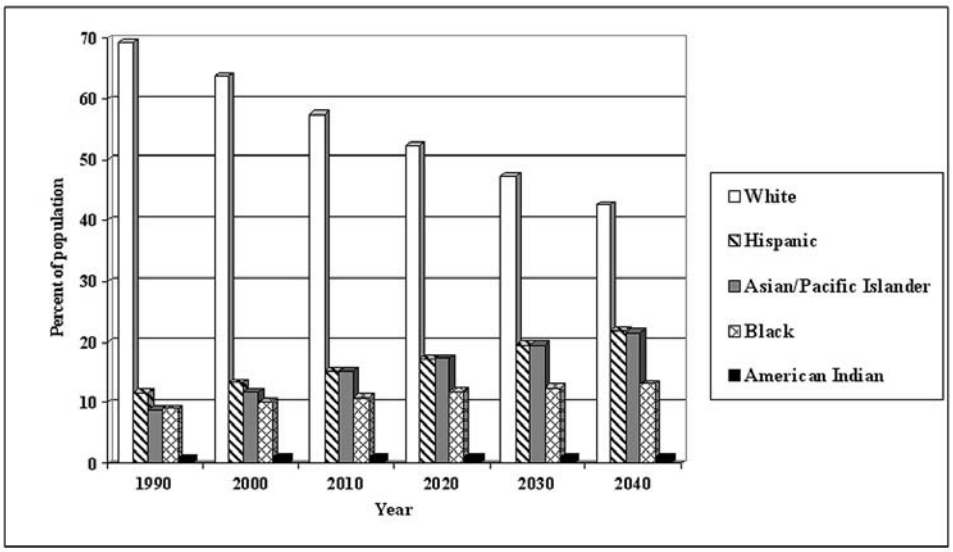


Figure 115—Racial and ethnic diversity trends for Sacramento County.

Source: State of California Department of Finance 1998

Table 83—*Percent race/ethnicity and percent change in Sacramento County, 1990-2040.*

Racial/ethnic group	1990	2000	2010	2020	2030	2040	Cumulative percent change
	Year						
White	69.35 -	63.71 (-5.64)	57.56 (-6.15)	52.36 (-5.20)	47.35 (-5.01)	42.55 (-4.80)	26.80
Hispanic	11.72 -	13.34 (1.62)	15.22 (1.87)	17.24 (2.02)	19.52 (2.28)	21.88 (2.36)	10.16
Asian/Pacific Islander	8.92 -	11.78 (2.86)	15.19 (3.41)	17.40 (2.21)	19.54 (2.14)	21.47 (1.93)	12.55
Black	9.06 -	10.11 (1.05)	10.94 (0.83)	11.88 (0.93)	12.46 (0.59)	13.00 (0.53)	3.94
American Indian	0.95 -	1.05 (0.10)	1.10 (0.04)	1.13 (0.03)	1.13 (0.00)	1.11 (-0.02)	0.16

Source: State of California Department of Finance 1998

Along with projected changes in race and ethnicity, changes in the area population's age are projected. Projected median age for Sacramento County residents varies by race/ethnicity and gender. Females are projected to have higher median ages in all ethnic groups except Hispanics. Whites have the highest projected median age between 1990 and 2040 (from 33.5 to 43.5 years), followed by American Indians (from 29 to 40.5 years) and Blacks (from 26.5 to 31 years) (*fig. 116*). Hispanics have the lowest projected median ages (from 25 to 27 years).

Development and Real Estate

Building trends in Sacramento County from 1987 to 1998 reveal that the recession had a dramatic impact on construction in the county, particularly residential construction in incorporated areas (*fig. 117*). Post-recession recovery was evident in all types of construction except non-residential development in incorporated areas, which remained a small and stable part of construction. The greatest growth in the county through 2005 is expected in unincorporated communities (County of Sacramento 1996).

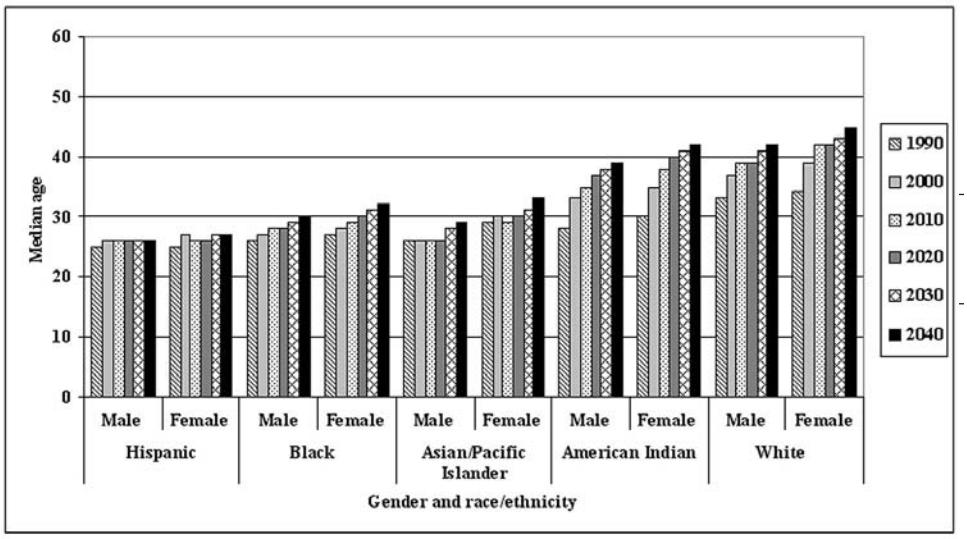


Figure 116—Median age by gender and race/ethnicity, Sacramento County, 1990-2040.

Source: State of California Department of Finance 1998

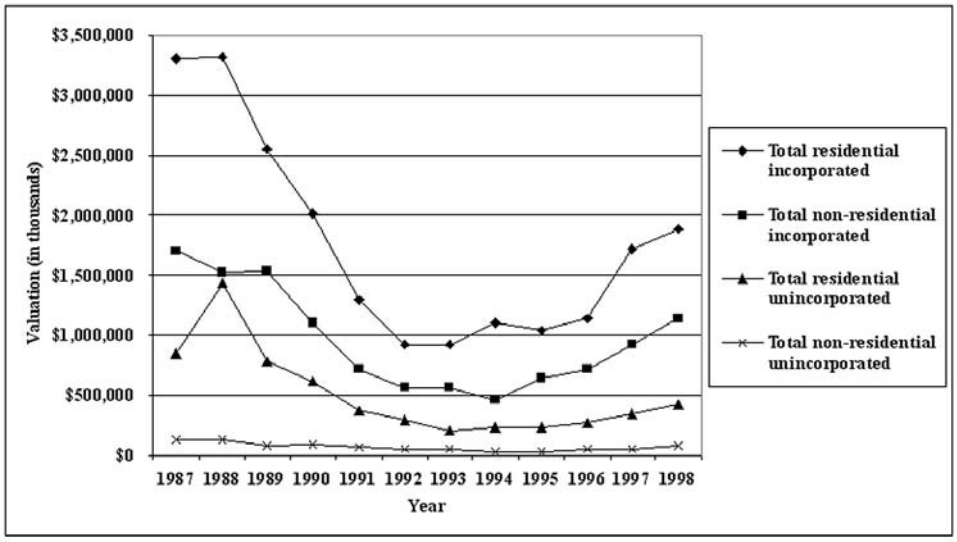


Figure 117—Building trends, Sacramento County, in 1998 dollars, 1987-1998.

Source: Construction Industry Research Board 1988-1999

In 1990, Sacramento County had 394,530 households and 417,574 housing units. The vast majority (94.5 percent) of housing units were occupied; only 5.5 percent were vacant (United States Census Bureau 1990a). Of the occupied housing units, the majority (56.6 percent) were owner-occupied; however, 43.4 percent were renter-occupied (United States Census Bureau 1990a). The median value of owner-occupied housing units in 1990 was $129,800, and the median rent was $527 per month.

Quality of Life Indicators

Transportation, Commuting, and Employment—In 1990, there were 482,321 workers age 16 and older in Sacramento County, and an average of 1.7 vehicles per household. Slightly fewer than 12 percent of Sacramento County residents worked outside the county. The majority (75.8 percent) of workers drove to work alone, although some carpooled (14 percent) (*fig. 118*). Very few used public transportation. The average travel time to work was 21.7 minutes compared to the average of 20.3 minutes for the Central Valley counties in this assessment.

Sacramento, the State Capital, has a job base nearly twice as concentrated in State and local government jobs as the average metropolitan area (Munroe and

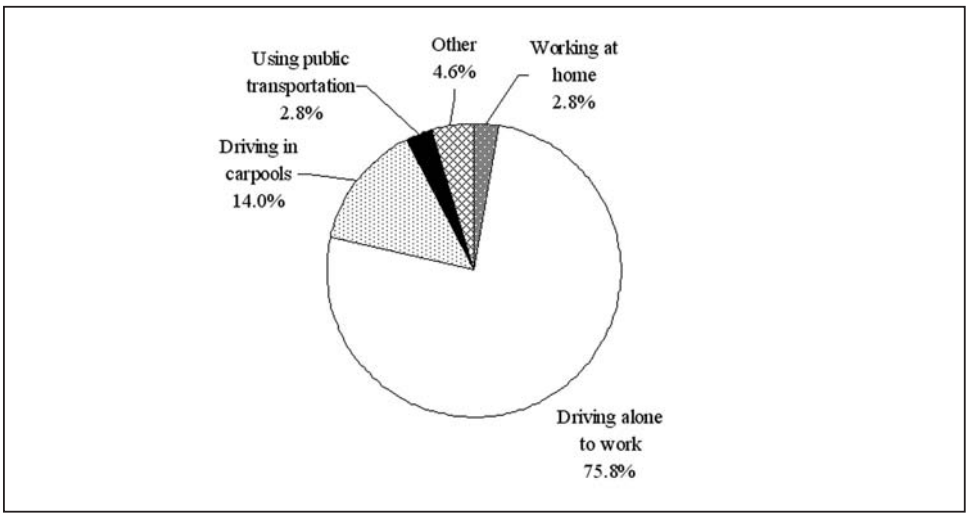


Figure 118—Commuting patterns, workers 16 and older, Sacramento County, 1990.

Source: United States Census Bureau 1999b

Jackman 1997). However, Sacramento's economy has diversified with growth in back office and data processing operations, finance, insurance, and real estate (Munroe and Jackman 1997). Food processors are major employers in the area, with several employing more than 1,000 people (Munroe and Jackman 1997). Sacramento is emerging as a center for high-tech manufacturing and as a manufacturing center for compact discs (Munroe and Jackman 1997).

Education—Sacramento County serves the largest number of students in its elementary schools (*table 84*). The county has more elementary schools (213) than middle and high schools (37 and 30, respectively). Average enrollment per school is greatest at the high school level, which is the pattern across the assessment area and all counties. Sacramento County serves slightly less than 4 percent of the assessment area's school enrollments. County schools have the 8th highest enrollment overall, and they are 13th in highest average enrollment per school. Students in 2nd through 11th grade were tested using the Stanford 9 at 278 of the county schools. Sacramento County's ranking in academic performance for 1999 was a mean of 5.36 out of 10 (based on the similarity index, www.cde.ca.gov), indicating slightly higher-than-average performance compared to similar schools. Although 21.2 and 18.4 percent of schools in the county performed well below or below average compared to similar schools, 18 percent were well above average, and 17.7 percent were above average.

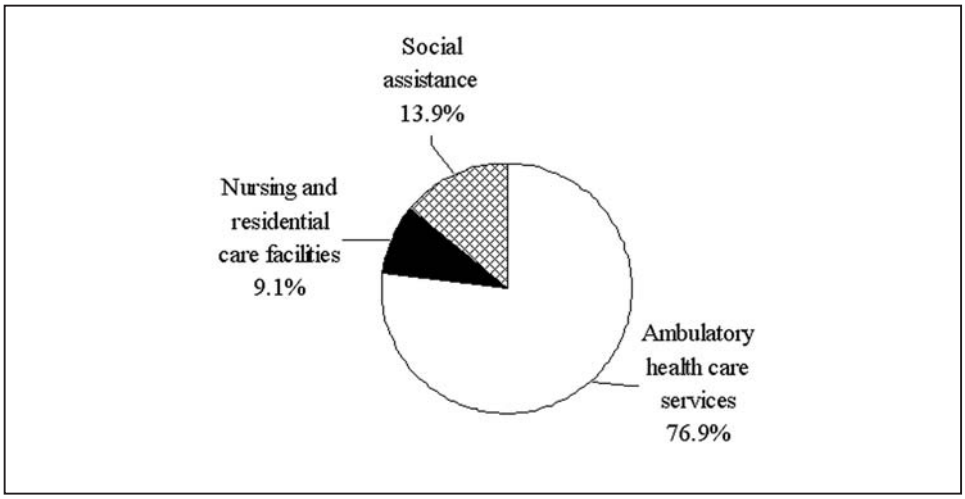
Table 84—*Enrollment and number of schools, Sacramento County, 1998-1999.*

Type of school	Total enrollment	Percent of total enrollment	Number of schools	Average enrollment/school
Elementary	116,742	58.0	213	548
Middle/Junior High	31,704	15.7	37	857
High School	52,877	26.3	30	1,763
Total	201,323	100.0	280	-

Source: California Department of Education 1998a

Health Care—The largest number of health care establishments in the county deliver ambulatory health care services, followed by social assistance, and nursing and residential care (*fig. 119*). There are no hospitals in the county as reported by the U.S. Census Bureau; however, according to another source, the county

Figure 119—Health care and social assistance establishments, Sacramento County, 1997.



Source: United States Census Bureau 1999a

has 13 hospitals, representing 3.3 percent of the assessment area's total hospitals (ahd.tool.net/list.php3/mstate=ca). The majority (76.9 percent) of the hospitals are nonprofit, with the balance classified as for-profit (23.1 percent) facilities. For those hospitals with reported data (27 hospitals), a total of 222 beds and 763,357 total patient days were recorded in 1999. The county ranked ninth in number of hospitals, comparable to its eighth-place ranking in population.

Recreation and Tourism—Among the assessment area's 26 counties, Sacramento ranked eighth in the 1997 economic census in accommodations and food services, and eighth in arts, entertainment, and recreation (United States Census Bureau 1999b, 1999c). A total of 2,185 accommodation and food-services establishments, with $1,195,326,000 in receipts, was reported. Arts, entertainment, and recreation services involved 238 establishments, with receipts totaling $249,788,000. Sacramento County offers a variety of recreational opportunities. The American River is the venue for rafting, from the leisurely to whitewater experiences. Folsom Lake State Recreation Area is an 18,000-acre State park with camping, picnicking, and varied other activities. There are numerous regional and county parks in the county as well. Those interested in history can find themselves at home at the many museums and historical sites, including Sutter's Fort Historic Park, the California Railroad Museum, the State Capital museum, and Capital building (www.sacramentocvb.org).

Environmental Indicators

Water Quality—Sacramento County crosses six watersheds: the Lower Sacramento, the North Fork American, the South Fork American, the San Joaquin Delta, the Lower Consumnes-Lower Mokelumne, and the Upper Consumnes (www.epa.gov/surf3/surf98/county.html). (Watersheds frequently cross county boundaries. Therefore, some counties may include watersheds that are also located in other counties.) The San Joaquin Delta and the Lower Consumnes-Lower Mokelumne watersheds were assigned a "5" by the EPA, indicating "more serious water quality problems but low vulnerability to pollution stressors." (According to the EPA's Index of Watershed Indicators procedures, a pollution stressor includes aquatic/wetland species at risk, toxic loads above limits, urban runoff potential, agricultural runoff potential, population change, hydrologic modification, estuarine pollution susceptibility, and atmospheric deposition.) The Lower Sacramento and North Fork American watersheds were assigned a "3," indicating "less serious water quality problems and low vulnerability to pollution stressors." Data are not available for the South Fork American and Upper Consumnes watersheds.

Air Quality—Sacramento County has the 8th largest population of the 26 counties, paired with the 11th highest total organic gas (TOG) emissions, the 10th highest reactive organic gas (ROG) emissions, the 8th highest carbon monoxide (CO) emissions, the 11th highest nitrogen oxide (NOx) emissions, the 18th highest sulfur oxide (SOx) emissions, and the 12th highest particulates (*table 85*). The majority of emissions are projected for marginal decreases dependent upon emission type. Particulates are expected to increase, primarily from area-wide sources, according to the California Air Resources Board (1999).

Table 85—*1996 estimated and 2010 forecasted annual average emissions, Sacramento County (cells do not add to column totals due to rounding error).*

Year	Emission category	Emission type[1]						
		TOG	ROG	CO	NOx	SOx	PM	PM10
1996	Stationary	91	18	2	5	0	3	2
	Area-Wide	51	22	62	3	0	74	39
	Mobile	72	63	560	79	2	3	3
	Natural	0	0	0	0	-	0	0
	Total	210	100	630	86	2	80	44
2010	Stationary	120	24	2	6	0	4	2
	Area-Wide	55	25	59	5	0	94	51
	Mobile	27	25	300	53	3	3	2
	Natural	-	-	0	-	-	-	-
	Total	200	74	360	64	3	100	55

Source: California Air Resources Board 1999

[1] TOG: total organic gases; ROG: reactive organic gases; CO: carbon monoxide; NOx: nitrogen oxides; SOx: sulfur oxides; PM: particulate matter; PM10: particulate matter less than or equal to 10 microns (*appendix D*).

Implications

According the County of Sacramento (1994), during the 1980s, the Sacramento region experienced strong economic growth. Many new manufacturing jobs came to the area, adding 13,000 new jobs. In the 1990s, the economy slowed and losses were felt in every major sector. New jobs have come into the area, but more than half of the 200,000-plus new jobs created in the 1980s were in service and retail industries. The State of California, faced with its own budgetary woes, has transferred the costs of health and social programs to the counties. Thus, the demands for health, safety, and welfare services are increasing while county revenue sources are decreasing.

Housing, although more affordable in the region than in many other parts of the State, is becoming more expensive. High-end rental housing is readily available in Sacramento County, but more affordable rentals are in short supply and publicly subsidized units have long waiting lists.

Publicly funded resources for health care cannot keep pace with the need for the foreseeable future. Cost is the greatest barrier to adequate health care, but increasing cultural diversity has meant that more residents have limited English proficiency, which can act as a barrier to receiving health care services. For example, requests for interpretation service at the University of California at Davis Medical Center more than doubled from 1986 to 1990. Most translation calls were for Spanish, but thousands of patients were from Southeast Asia. An increasing number of patients required translation in Russian.

Natural resource challenges for Sacramento County include the impact of urban growth in unincorporated natural areas, especially the impact on what is still a significant agricultural economy, and the effect of growth on water quality in the county's six watersheds. The four major rivers that cross the county have

a long history as being integral to the county's development, but their long-term viability is threatened by the county's urban growth.

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San Benito County

- San Benito is linked to the Bay Area as a bedroom community. Because it was formed out of Monterey County it is also linked to the Central Coast's history and the Central Valley's economy through agriculture.
- The county has the smallest population of all counties in the assessment.
- San Benito was the fastest growing county in the State between 1990 and 2000.
- A relatively stable ethnic/racial distribution between 1990 and 2040 makes this county unique in the assessment.

History

According to Frusetta (1990), San Benito's first inhabitants were the Ichimi Indians, relatives of the Costanoan tribe whose territory extended from Point Sur to the San Francisco Bay (*fig. 120*). The Ichimi's stone culture revolved around acorns. Acorns were crushed into a coarse meal. The mash was then leached of its bitterness and the gruel was cooked or baked into unleavened bread. The Ichimi traded for shells and steatite (soapstone) from their western neighbors, the Wacharon Indians of the Salinas Valley. They obtained obsidian and asphaltum tar by barter from the Yokuts of the central San Joaquin Valley. According to Clough (1996), the primary Indian group in the area before the arrival of Europeans was known as the Mutsunes, although there were other Indian groups in the area. The Mutsunes were hunters and seed-gatherers. Seeds were ground in stone mortars, and water was held in tightly woven baskets.

In 1795, Spanish explorers selected the site for the Mission San Juan Bautista (named for Saint John the Baptist). The site for the mission was chosen because it was midway between Mission San Carlos (Carmel) and Mission Santa Clara, which were more than 50 miles apart (Clough 1996). By 1797, 85 Indians had been baptized at the mission. Life there was difficult, and European diseases were the principal cause of death among the Indians. The Indian death rate was very high until 1832. It is reported that 2,854 Indians had died by this time, but the figure falls short of the reported total of 4,000 to 4,500 Indians buried at the mission (Clough 1996).

People passed through the county on their way to the gold mines in the 1860s. Among the first settlers in San Benito were the Smith Brothers in 1860 (Frusetta 1990). When they came to San Benito, they squatted on unclaimed land they thought would be suitable for making a living from wild game, gardening, and raising livestock. In 1853, Dr. Thomas Flint and Llewellyn Bixby, early and successful entrants in the Gold Rush, formed a partnership and purchased sheep to bring to California. Flint-Bixby and Company and Colonel Hollister purchased land south of San Jose in the region that became San Benito County. Later, Hollister renegotiated the sale of the land with Flint-Bixby and Company and divided his 21,000-acre section into 51 lots. Fifty would be for farms and pastures, and one would be for a townsite (Northern California Historical Records Survey Project 1940, Clough 1996). Thus, Hollister was the pioneer of the practice of subdividing land. The idea of creating a town near and for the convenience of farmers was also new.

By 1865, enough settlers had come to the area to form a small town. Early residents traveled into Monterey for manufactured goods that arrived on whaling vessels and New England clipper ships. Cattle ranching was the predominant activity through much of the county's early history, but the vast herds that proliferated were finally limited in the 1880s by drought and diseases.

Figure 120—San Benito County (shaded area) is east of Monterey County.

Source: 50 Individual States—Counties 1995

Hollister continued to grow, helped by the fact that the cattle and sheep owners were able to persuade Southern Pacific to have the railroad pass through their town and not through San Juan (Clough 1996). San Juan also lost to Hollister in its bid to become the county seat. In fact, because San Juan lost many people in the exodus of 1871, it did not have enough votes to put up a good fight (Clough 1996) when the railroad went through Hollister. San Juan did get a railroad through town in 1907, known as the Central California Railroad (Clough 1996).

San Benito was formed in 1874 from the inland territory of Monterey County east of the Gabilan Mountains (csb.hollisteronline.com, Mylar 1929, Northern California Historical Records Survey Project 1940). The movement for separation was initiated by the citizens of Hollister and was opposed by residents of San Juan, Gilroy, and Monterey. The principal argument for separation was the difficulty in traveling over the Gabilan Mountains in order to transact business in Salinas (Northern California Historical Records Survey Project 1940). One-third of the population lived in the eastern portion of the county, and because of their isolation, they did not have proportionate voice in the county's affairs. The name "San Benito" was chosen from the river, which had originally been named by Father Crespi in 1772 in honor of Saint Benedict.

San Benito was settled by people of many nationalities. Through successive periods, the original Indian population was augmented by Spaniards, Mexicans, and pioneer immigrants from Utah, Missouri, Tennessee, and other states. Later, settlers arrived from New England, many of Irish origin (Northern California Historical Records Survey Project 1940). San Benito was principally a stock-raising county at its inception in 1874 (Northern California Historical Records Survey Project 1940). However, farmers in the county also produced large crops of hay, wheat, and barley. Warehouses for these crops were built in Hollister; also known for its horses and livestock. Hay was raised and stored in such quantities that Hollister became known as the "Hay City," with the largest warehouses in the world. The first silo constructed on the west coast was erected in San Benito in 1880 (Northern California Historical Records Survey Project 1940). Horse and livestock buyers from San Francisco and other parts of the state would converge in Hollister to acquire their animals (Mylar 1929). The Flint-Bixby Company had one of the largest livestock enterprises in the early days of the county with 4,000 head of sheep (Mylar 1929). Another important activity in San Benito was the mining of quicksilver, gypsum, limestone, and bentonite (Northern California Historical Records Survey Project 1940).

Within its borders the county has several parks. President Theodore Roosevelt declared Pinnacles National Park a national monument in 1908. The park is noted for its needle-like rocks, first discovered by Captain George Vancouver. Fremont State Park was formed in 1928. Bolado Park is a county park located near Tres Pinos (Northern California Historical Records Survey Project 1940).

San Benito County Today

According to the County of San Benito (1994), approximately 99 percent of San Benito County is unincorporated land with about 95 percent of that land being used for agriculture, rangeland, forest, watershed, and wildlife habitat. The northern and southern parts of the county are very different. The northern part of the county is more populated, but holds the more fertile soil with abundant groundwater and a mild climate. The south is arid with more extreme temperatures and suitable for agriculture only with expensive cultivation. The lifeblood of the south county is the San Benito River.

Because the San Andreas Fault runs lengthwise through the county, San Benito has been the site of many earthquakes. The largest seismic event in recent times was the Loma Prieta earthquake on October 17, 1989, which caused extensive damage to Hollister (McCann 1990). The damage in San Benito County was due to a combination of factors including outdated building codes, walls without

reinforcement, un-reinforced masonry, types of structures such as mobile homes that were not secured to the ground, and rock and soil types (McCann 1990).

Sociodemographic Characteristics

Projected Population—Although San Benito is a rural county, it is within the draw of the San Francisco Bay Area and is a destination for those looking for more affordable housing. The population of San Benito County doubled between 1970 and 1990. Two-thirds of the growth in the county has been from migration into the county and one-third has been from natural increase. Most of the population growth has occurred in the city of Hollister. Between 1990 and 2000, San Benito County was the fastest growing county in California at 45.1 percent. However, while this increase constitutes a large percentage, numerically it was an increase of 16,537 people (United States Census Bureau 2000).

DOF and the Association of Monterey Bay Area Governments (AMBAG) calculated population projections for San Benito County (*table 86*). San Benito's population is expected to increase through 2040. AMBAG's projections are lower than DOF's projections through the forecast period. The two sets of projections vary by as little as 273 people for 1990 and as much as 3,210 people for 2010.

Table 86—*Population projections, San Benito County, 1990-2040.*

Source	1990	1995	2000	2005	2010	2015	2020	2030	2040
U.S. Census	36,697[1]	-	53,234	-	-	-	-	-	-
DOF	36,970[2]	-	51,853	-	68,040	-	82,276	97,941	114,922
AMBAG	36,697	42,473	50,163	57,313	64,830	72,648	80,653	-	-

Source: United States Census Bureau 1990a and 2000, State of California Department of Finance 1998, Association of Monterey Bay Area Governments 1997

[1] Data from April 1.

[2] Data from July 1.

Ethnic and Racial Diversity—In 1990, slightly more than half of San Benito County was White, and 45.8 percent of the county's population was Hispanic. Blacks, Asians, and American Indians represented less than 4 percent of the total population. By 2000, Whites were no longer the majority and Hispanics were 47.9 percent of the population. Blacks, Asians, and American Indians still represented less than 4 percent of the total population (*table 87*).

Table 87—*1990 and 2000 population, San Benito County.*

	1990	2000
	Percent	
Non-Hispanic White	51.2	46.0
Hispanic all races	45.8	47.9
Non-Hispanic Black	0.5	0.9
Non-Hispanic Asian	1.8	2.3
Non-Hispanic American Indian	0.6	0.5
Non-Hispanic other	0.2	0.1
Non-Hispanic two or more races	N/A	2.2

Source: United States Census Bureau 1990a, 2000

In 1990, 17.1 percent of San Benito County's population was foreign-born. Thirty-eight percent of residents age 5 and older spoke a language other than English at home. Of those, the majority (89.3 percent) spoke Spanish, and 10.7 percent spoke a language other than English or Spanish (United States Census Bureau 1990b).

Linguistic diversity is also reflected within the schools in the region. The majority of LEP students in San Benito County public schools speak Spanish—mirroring languages spoken at home (*fig. 121*). In 1997-98, 16.2 percent of San Benito County's public school students were LEP.

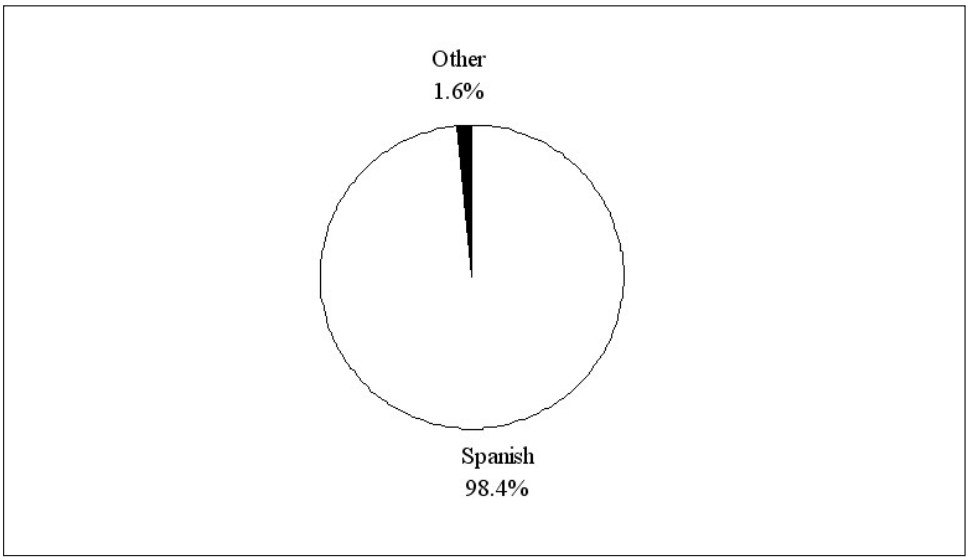


Figure 121—Limited-English-Proficient (LEP) students in San Benito County public school districts, by language, 1997-1998.

Source: California Department of Education 1998b

Projected Ethnic and Racial Diversity—Though an increase in overall population is projected for the county, little change in the distribution of ethnic/racial groups across the population is expected (*fig. 122*).

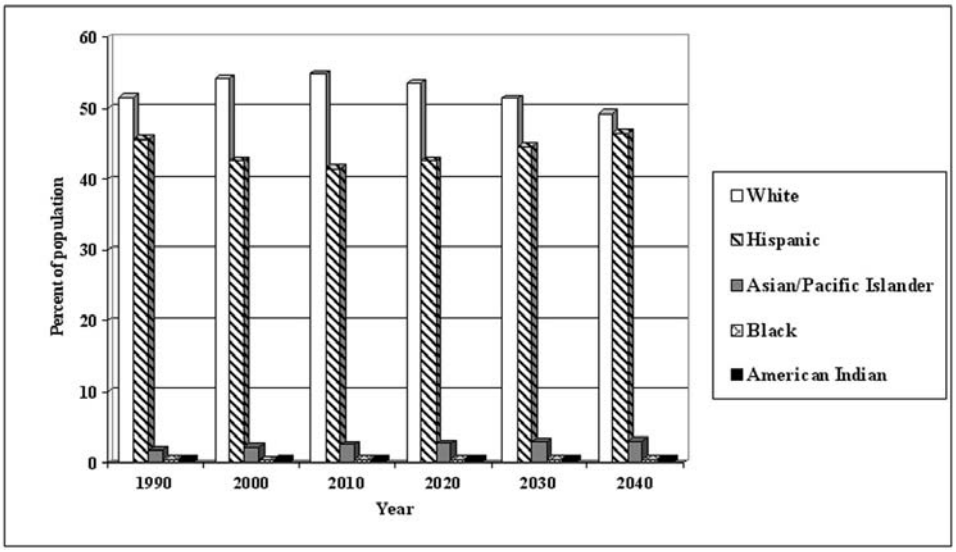


Figure 122—Racial and ethnic diversity trends for San Benito County.

Source: State of California Department of Finance 1998

The proportion of Whites is expected to decrease by approximately 2 percent through the forecast period, while Hispanics and Asians are expected to increase

by approximately 1 percent. Blacks and American Indians show little change in population (*table 88*).

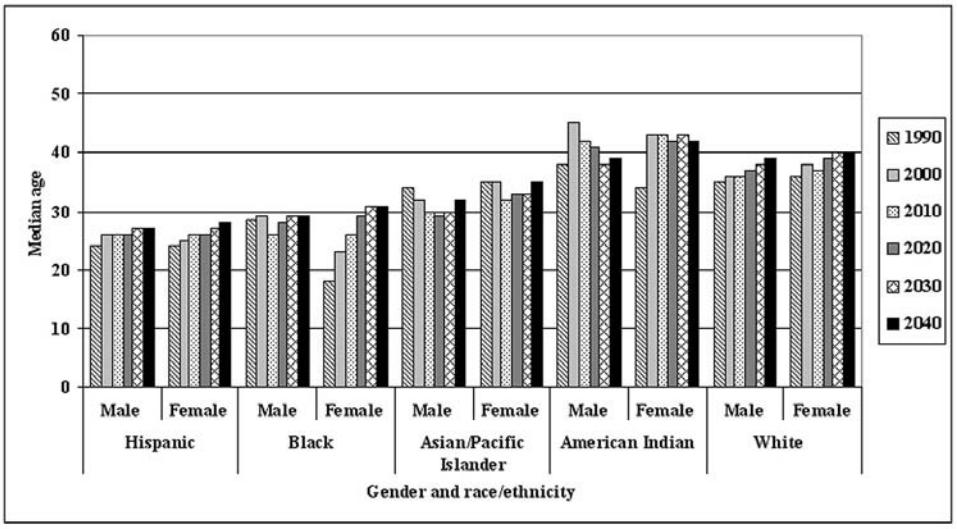
Table 88—*Percent race/ethnicity and percent change in San Benito County, 1990-2040.*

Racial/ethnic group	1990	2000	2010	2020	2030	2040	Cumulative percent change
	Year						
White	51.50 -	54.27 (2.77)	54.91 (0.64)	53.58 (-1.32)	51.45 (-2.13)	49.34 (-2.10)	-2.15
Hispanic	45.69 -	42.64 (-3.05)	41.53 (-1.11)	42.62 (1.09)	44.60 (1.98)	46.55 (1.95)	0.86
Asian/Pacific Islander	1.78 -	2.17 (0.39)	2.55 (0.38)	2.76 (0.21)	2.92 (0.16)	3.05 (0.14)	1.27
Black	0.46 -	0.40 (-0.05)	0.48 (0.07)	0.48 (0.01)	0.50 (0.02)	0.53 (0.03)	0.07
American Indian	0.58 -	0.51 (-0.06)	0.53 (0.02)	0.55 (0.02)	0.54 (-0.02)	0.53 (-0.01)	-0.05

Source: State of California Department of Finance 1998

Changes in the area population's age are projected. Projected median age for San Benito County residents varies by race/ethnicity and gender. Black females have a much lower projected median age in 1990 and 2000 than their male counterparts, though by 2040 females have the higher median age. Hispanic males and females are projected to be approximately the same age across the forecast period (from 24 to 27.5 years), the lowest projected median age of all groups from 1990 through 2040. American Indians have the highest projected median age (from 36.5 to 40.5 years), followed by Whites (from 35.5 to 39.5 years), and Asians (from 34.5 to 33.5 years) (*fig. 123*).

Figure 123—Median age by gender and race/ethnicity, San Benito County, 1990-2040.



Source: State of California Department of Finance 1998

Development and Real Estate

Building trends in San Benito County from 1987 to 1998 reveal some chaotic patterns (*fig. 124*). Residential construction fell with the recession, but showed a marked recovery beginning in 1996. Non-residential construction in incorporated and unincorporated areas represented a smaller share of building in the county.

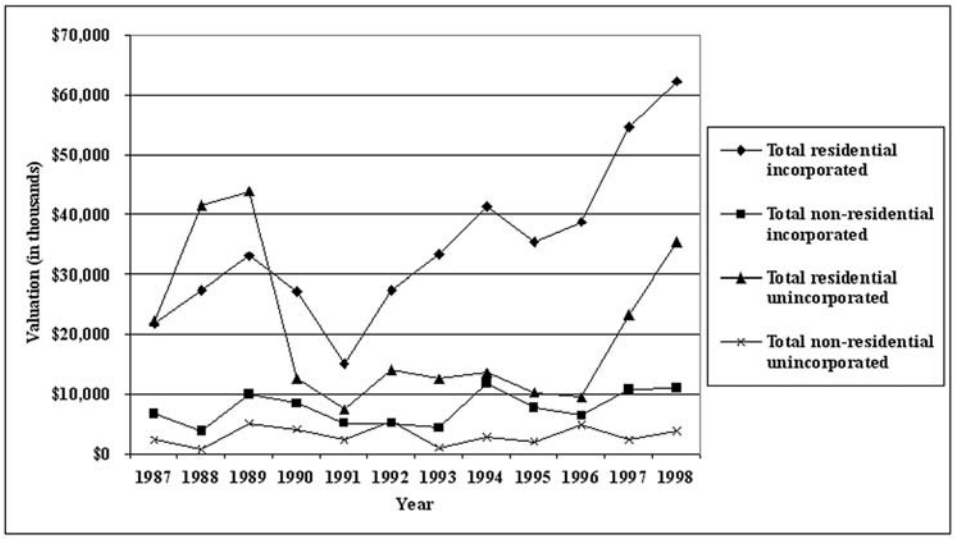


Figure 124—Building trends, San Benito County, in 1998 dollars, 1987-1998.

Source: Construction Industry Research Board 1988-1999

In 1990, San Benito County had 11,422 households and 12,230 housing units. The vast majority (93.4 percent) of housing units were occupied; 6.6 percent were vacant (United States Census Bureau 1990a). Of the occupied housing units, the majority (61.1 percent) were owner-occupied, though more than one-third (38.9 percent) were renter-occupied (United States Census Bureau 1990a). The median value of owner-occupied housing units in 1990 was $206,600, and the median rent was $547 per month. Compared to the State, in which the majority of the housing stock is 30 to 50 years old, over one-third of San Benito's housing is 11 years old or less (County of San Benito 1994).

Quality of Life Indicators

Transportation, Commuting, and Employment—In 1990, there were 16,530 workers 16 and older in San Benito County, and an average of 2.1 vehicles per household. Almost 35 percent of San Benito County residents worked outside the county. The majority (73.5 percent) of workers drove to work alone, although some carpooled (17.5 percent) (*fig. 125*). Very few used public transportation. The average travel time to work was 23.3 minutes compared to the average of 20.3 minutes for the Central Valley counties in this assessment.

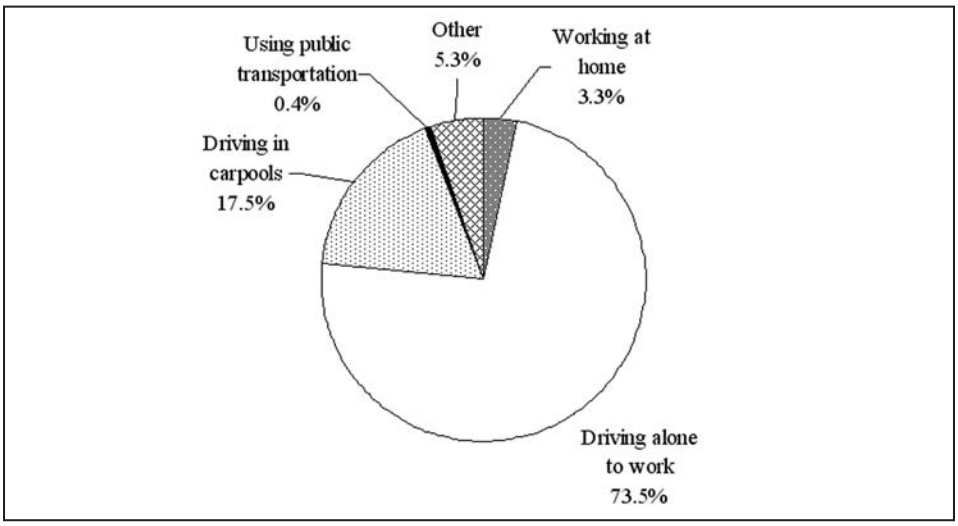


Figure 125—Commuting patterns, workers 16 and older, San Benito County, 1990.

Source: United States Census Bureau 1990b

According to the County of San Benito (1994), the average annual unemployment rate in the county from 1985 to 1990 was 12.5 percent. The high unemployment rate is due in part to a large seasonal labor force employed in agriculture and food processing. In February of 1992, the unemployment rate in San Benito County was the third highest in the State at 23.1 percent. Historically, agriculture has been the primary employer in the county. The market value of agricultural products sold increased to $156,707,000 from 1992 to 1997, an increase of 45 percent (United States Department of Agriculture 1997). After the agricultural sector, the next largest employer is government. A substantial share of government employees work for the county or the school district. However, increases in other sectors such as retail trade, wholesale trade, and services are expected.

Education—San Benito County serves the largest number of students in its elementary schools (*table 89*). The county has more elementary schools (16) than middle and high schools (two each). Average enrollment per school is greatest at the high school level, which is the pattern across the assessment area and all counties. San Benito County serves slightly less than 1 percent of the assessment area's school enrollments. County schools have the 26th highest enrollment overall and they are 25th in highest average enrollment per school. Students in 2nd through 11th grade were tested using the Stanford 9 at 14 of the county schools. San Benito County's ranking in academic performance for 1999 was a mean of 2.86 out of 10 (based on the similarity index, www.cde.ca.gov), indicating much lower-than-average performance compared to similar schools. Although 57.2 and 21.4 percent of schools in the county performed well below or below average compared to similar schools, 7.1 percent were above average.

Table 89—*Enrollment and number of schools, San Benito County, 1998-1999.*

Type of school	Total enrollment	Percent of total enrollment	Number of schools	Average enrollment/school
Elementary	6,039	57.3	16	377
Middle/Junior High	1,757	16.7	2	879
High School	2,739	26.0	2	1,370
Total	10,535	100.0	20	-

Source: California Department of Education 1998a

Health Care—The largest number of health care establishments in the county deliver ambulatory health care services, followed by social assistance, and nursing and residential care (*fig. 126*). There are no hospitals in the county as reported by the U.S. Census Bureau. However, the county has one county hospital, representing 0.3 percent of the assessment area's total hospitals (ahd.tool.net/list.php3/mstate=ca). The hospital had 111 beds, and reported 26,215 patient days in 1999. The county ranked 26th in number of hospitals, comparable to its 26th place ranking in population.

Recreation and Tourism—Among the assessment area's 26 counties, San Benito ranked 26th in the 1997 economic census in accommodations and food services, and 26th in arts, entertainment, and recreation (United States Census Bureau 1999b, 1999c). A total of 80 accommodation and food-services establishments, with $29,989,000 in receipts, was reported. Arts, entertainment, and recreation services involved seven establishments, with receipts totaling $10,766,000. Special recreation sites of interest for this county include the Hollister Hills State Vehicular Recreation Area, Pinnacles National Monument (the site of an ancient volcano adjacent to the San Andreas Rift), and the San Juan Bautista Spanish Mission (www.sanbenito.com).

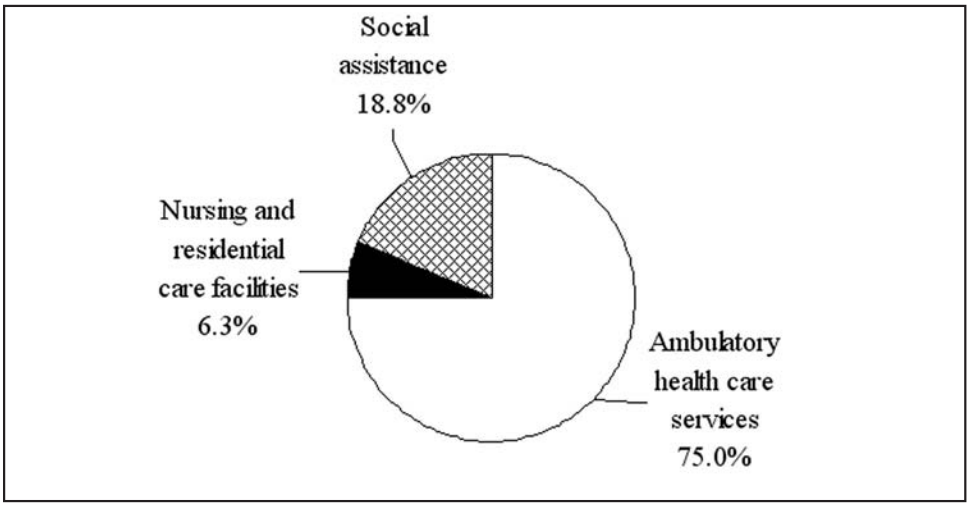


Figure 126—Health care and social assistance establishments, San Benito County, 1997.

Source: United States Census Bureau 1999a

Environmental Indicators

Water Quality—San Benito County crosses six watersheds: the Upper Los Gatos-Avenal, the Middle San Joaquin-Lower Chowchilla, the Panoche-San Luis Reservoir, the Pajaro, the Salinas, and the Carmel (www.epa.gov/surf3/surf98/county.html). (Watersheds frequently cross county boundaries. Therefore, some counties may include watersheds that are also located in other counties.) The Middle San Joaquin-Lower Chowchilla, the Pajaro, the Salinas, and the Carmel watersheds were assigned a "5" by the EPA, indicating "more serious water quality problems and low vulnerability to pollution stressors." (According to the EPA's Index of Watershed Indicators procedures, a pollution stressor includes aquatic/wetland species at risk, toxic loads above limits, urban runoff potential, agricultural run-off potential, population change, hydrologic modifications, estuarine pollution susceptibility, and atmospheric deposition.) Data are not available for the Upper Los Gatos-Avenal and the Panoche-San Luis Reservoir watersheds.

Air Quality—San Benito County has the smallest population of the 26 counties, paired with the lowest emissions across all categories except for particulates (*table 90*). The county ranks 24th in particulates. The majority of emissions are projected for marginal decreases dependent upon emission type. Particulates are expected to increase, primarily from area-wide sources, according to the California Air Resources Board (1999).

Table 90—*1996 estimated and 2010 forecasted annual average emissions, San Benito County (cells do not add to column totals due to rounding error).*

Year	Emission category	Emission type[1]						
		TOG	ROG	CO	NOx	SOx	PM	PM10
1996	Stationary	13	1	0	1	0	2	1
	Area-Wide	2	2	4	0	0	19	10
	Mobile	3	2	25	6	0	0	0
	Natural	0	0	3	0	-	1	1
	Total	18	5	32	7	0	22	12
2010	Stationary	20	1	0	1	-	2	1
	Area-Wide	2	2	5	0	-	21	12
	Mobile	1	1	18	4	0	0	0
	Natural	0	0	3	-	-	1	1
	Total	24	4	27	5	0	24	13

Source: California Air Resources Board 1999

[1] TOG: total organic gases; ROG: reactive organic gases; CO: carbon monoxide; NOx: nitrogen oxides; SOx: sulfur oxides; PM: particulate matter; PM10: particulate matter less than or equal to 10 microns (*appendix D*).

Implications

San Benito County is expected to experience major population growth through 2040. According to the County of San Benito (1994), Santa Clara County's surplus of jobs combined with the lower land values in San Benito County have created a demand for housing in San Benito County. San Benito's population increased 46.8 percent from 1980 to 1990 and a large proportion of that growth was from commuters. More than one-third of residents commute outside of the county to work. Two types of householders have immigrated from Santa Clara County: first-time home buyers and householders selling a moderate size home in an expensive market in Santa Clara County in order to purchase a larger home, a home with land, or a luxury home in San Benito County. The proximity of San Benito County to Santa Clara County has contributed to inflated housing prices for the resident workforce. This settlement pattern raises concerns focused on traffic, air quality, and affordability of housing for the San Benito County of the future.

As a potential bedroom county to Santa Clara County, San Benito could potentially bear the cost of economic growth in the neighboring San Francisco Bay Area without the benefits of attracting job growth in the county. Without the development of new economic sectors in San Benito, the county and its cities will have to pay for infrastructure required by new residential development without the economic development necessary to pay for that infrastructure. With 95 percent of the unincorporated land in the county as agricultural, rangeland, forest, watershed, and wildlife habitat, unrestrained urban growth does not bode well for the future of natural resources in San Benito County.

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San Joaquin County

- The county is becoming a center for food technology.
- The transportation sector has an above average share of total employment in the county.
- The county is becoming a bedroom community to the San Francisco Bay Area.
- The Port of Stockton became the first inland seaport in California.

History

The region was originally occupied by the North Valley Yokuts and the Miwok Indians (County of San Joaquin 1992). Both tribes depended on the rivers and marshlands for their subsistence (www.virtualsanjoaquin.com/history/index.asp). Indians thrived in the Valley until the arrival of Spanish missionaries in the late 1700s, when they were captured to work on the missions. Mission Indians suffered from diseases brought by Europeans including malaria and smallpox. Most surviving Yokuts have descended from the southern tribes, as the northern tribes were nearly decimated by disease (www.virtualsanjoaquin.com/history/index.asp).

After the Spanish missionaries, the next Europeans to arrive in the area were French-Canadian hunters and trappers in the early 1800s. The first trappers were beaver trappers, under the lead of Jedediah Smith (Gilbert 1879).

Before 1851, the county was devoted to grazing and hunting. Immense herds of cattle and some horses roamed the valley with only the restraint of an occasional vaccaro (Gilbert 1879). With the Gold Rush, San Joaquin became a frequent stop along the main stagecoach roads, which connected Stockton, Lodi, Lockeford, Farmington, Lathrop, Banta, Manteca, and Tracy. Stockton was established in 1848-49 when Charles M. Weber commissioned a townsite encompassing an entire square mile. The early survey gave Stockton the distinction of being the first planned community in California (Hillman and Covello 1985). Weber situated Stockton at the closest point to the Sierra Nevada foothills that riverboats could reach. All provisions for the mining camps first came to Stockton by riverboat (Hillman and Covello 1985). By 1849, there was regular steamer service between Stockton and San Francisco. Many of the county's communities developed along former transportation and trade routes. With an influx of population, the production of food was needed to support it; thus, agricultural endeavors were begun in the county. Some who were disappointed in the search for gold then turned to farming. The swamp and wetland areas of the San Joaquin and Sacramento Rivers were very fertile and the county became known as a significant agricultural and transportation hub (www.californiacv.com/sanjoaquin.htm).

The railroad came to the county in 1870 (Gilbert 1879). The railroad connected San Joaquin County to areas in the north and the south, and the rivers connected the county to the Pacific Ocean and areas inland. As a result of these transportation routes, it was relatively easy to move goods such as agricultural products to the areas where they were needed. The influx of adventurers in 1849 later gave rise to an enormous trade in goods, tools, and provisions between Stockton and the mines (Gilbert 1879). Boat building is one of the oldest industries in Stockton and can be traced to 1850 (Hillman and Covello 1985).

San Joaquin County was formed in 1850, named after the San Joaquin River by Lieutenant Moraga, the first non-native explorer to enter the San Joaquin Valley (www.co.san-joaquin.ca.us/announ.htm, www.virtualsanjoaquin.com/history/index.asp) (*fig. 127*). The Port of Stockton became a major link to San Francisco in the 1930s when the deep-water channel was dredged to accommodate ocean-going vessels (Hillman and Covello 1985, www.californiacv.com/sanjoaquin.htm). The Port of Stockton opened in 1933 as the first inland seaport in California (Hillman and Covello 1985).

The county has a long history of ethnic diversity (County of San Joaquin 1992). Starting in 1868, Stockton became known for its educational opportunities for Blacks (Hillman and Covello 1985). Millionaire Japanese farmer George Shima helped develop Stockton as the potato capital of the world, a title since lost to Oregon and Idaho (Hillman and Covello 1985). A number of Chinese entered the area in the late 1800s when they came to work on the railroad and to build levees in the delta. Sikhs from northwest India came to the area in 1900 and became farm laborers. As a result, there is an established Indian community in south Stockton today. During the 1930s, Stockton had the largest population of Filipinos outside the Philippines. There are still many Filipino and Japanese families living in Stockton (Hillman and Covello 1985). The earliest ethnic groups were California Indians, Mexicans, and Chinese. The latter two have well-established roles in local business, farming interests, government, and other areas (Hillman and Covello 1985). Ethnic diversification continues. Between 1975 and 1987, approximately 30,000 Southeast Asians moved to San Joaquin County (County of San Joaquin 1992).

Figure 127—San Joaquin County (shaded area) is north of Stanislaus County.

Source: 50 Individual States—Counties 1995

San Joaquin County Today

Most of the county's population lives in incorporated cities (Umbach 1997). The county's leading industry is agriculture. The market value of agricultural products sold increased to $1,179,706,000 from 1992 to 1997, an increase of 50 percent (United States Department of Agriculture 1997). Grapes and milk are the main products. The Lodi-Woodbridge area grows nearly 40 percent of California's Zinfandel grapes (Munroe and Jackman 1997). Stockton is home to many wood and paper products, food processing, and ship-building firms (Hillman and Covello 1985). The county is increasingly becoming a bedroom community for Bay Area and Silicon Valley workers as a result of its less costly homes and its proximity to Alameda and Contra Costa Counties. The county is undergoing a transformation to a more industrial and service economy (County of San Joaquin 1992). San Joaquin County's central location has made it a favored location for distribution companies (Munroe and Jackman 1997). Today the port serves ships from around the world through the 37-foot deep Stockton Channel to San Francisco Bay (www.californiacv.com/sanjoaquin.htm).

Sociodemographic Characteristics

Projected Population—DOF and the San Joaquin Council of Governments (SJCOG) calculated population projections for San Joaquin County (*table 91*). An increase in population is expected through the forecast period. In 2000, SJCOG projected a higher population than DOF; but in 2010 and 2020, DOF projected a higher population for the county than SJCOG. The discrepancy between the two sets of projections increases from a difference of almost 3,000 people in year 2000 to a difference of 62,524 people in 2020.

Table 91—*Population projections, San Joaquin County, 1990-2040.*

Source	1990	1995	2000	2005	2010	2015	2020	2030	2040
U.S. Census	480,628[1]	-	563,598	-	-	-	-	-	-
DOF	483,817[2]	-	579,712	-	725,868	-	884,375	1,060,442	1,250,610
SJCOG	483,800	533,393	582,704	635,415	687,930	752,080	821,851	-	-

Source: United States Census Bureau 1990a and 2000, State of California Department of Finance 1998, San Joaquin Council of Governments 2000

[1] Data from April 1.

[2] Data from July 1.

Ethnic and Racial Diversity—In 1990, more than half of San Joaquin County's population was White, and slightly less than one-fourth was Hispanic. Blacks, Asians, and American Indians represented less than 20 percent of the total population. By 2000, Whites were less than half of the total population, and Hispanics 30.5 percent. Blacks, Asians, and American Indians still represented less than 20 percent of the population (*table 92*).

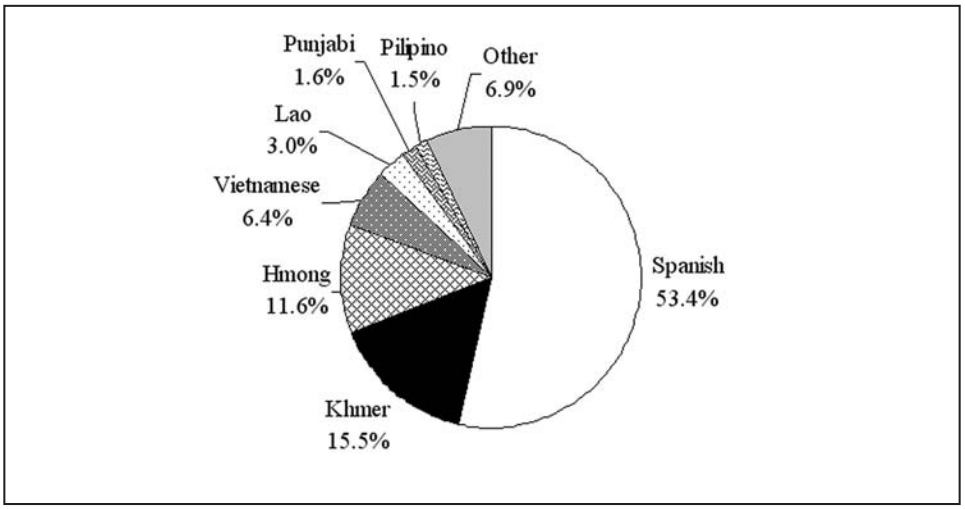
Table 92—*1990 and 2000 population, San Joaquin County.*

	1990	2000
	----------Percent----------	
Non-Hispanic White	58.8	47.4
Hispanic all races	23.4	30.5
Non-Hispanic Black	5.2	6.4
Non-Hispanic Asian	11.6	11.3
Non-Hispanic American Indian	0.8	0.6
Non-Hispanic other	0.2	0.2
Non-Hispanic two or more races	N/A	3.5

Source: United States Census Bureau 1990a, 2000

In 1990, 16.4 percent of San Joaquin County's population was foreign-born. More than one-quarter (27.9 percent) of residents age 5 and older spoke a language other than English at home. Of those, a slight majority (54.9 percent) spoke Spanish and almost half spoke a language other than English or Spanish (45.1 percent, United States Census Bureau 1990b).

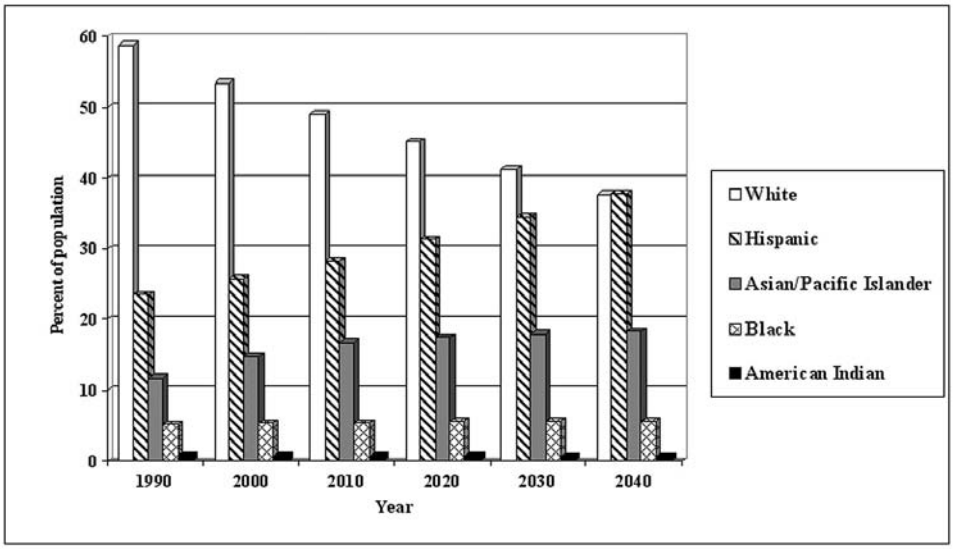
Linguistic diversity is also reflected within the schools in the region. The majority of LEP students in San Joaquin County public schools speak Spanish or Khmer—mirroring the languages spoken at home (*fig. 128*). In 1997-98, 21.2 percent of San Joaquin County's public school students were LEP.



Source: California Department of Education 1998b

Figure 128—Limited-English-Proficient (LEP) students in San Joaquin County public school districts, by language, 1997-1998.

Projected Ethnic and Racial Diversity—As the population in San Joaquin County increases, ethnic and racial diversity are projected to increase through 2040. Hispanics and Asians are expected to increase as a proportion of the total population, while Whites are expected to decrease as a proportion of the total population (*fig. 129*). Blacks and American Indians represent small and stable proportions of the county's population.



Source: State of California Department of Finance 1998

Figure 129—Racial and ethnic diversity trends for San Joaquin County.

The proportion of Whites is expected to decrease by approximately 21 percent through the forecast period, while Hispanics and Asians increase by approximately 14 and 7 percent, respectively. In 2040 Whites and Hispanics are expected to be equal proportions of the county population. The Black and American Indian populations show little change over the forecast period (*table 93*).

Table 93—*Percent race/ethnicity and percent change in San Joaquin County, 1990-2040.*

Racial/ethnic group	1990	2000	2010	2020	2030	2040	Cumlative percent change
	Year						
White	58.84 -	53.49 (-5.36)	49.00 (-4.48)	45.09 (-3.92)	41.20 (-3.89)	37.64 (-3.56)	-21.21
Hispanic	23.51 -	25.78 (2.27)	28.26 (2.48)	31.26 (3.00)	34.54 (3.28)	37.74 (3.20)	14.23
Asian/Pacific Islander	11.69 -	14.71 (3.02)	16.69 (1.98)	17.45 (0.76)	18.03 (0.58)	18.38 (0.35)	6.69
Black	5.16 -	5.32 (0.15)	5.35 (0.04)	5.53 (0.17)	5.58 (0.06)	5.62 (0.04)	0.46
American Indian	0.79 -	0.71 (-0.08)	0.69 (-0.02)	0.67 (-0.02)	0.64 (-0.03)	0.61 (-0.03)	-0.17

Source: State of California Department of Finance 1998

Along with projected changes in race and ethnicity, changes in the area population's age are projected. Projected median age for San Joaquin County residents varies by race/ethnicity and gender. Females are projected to have higher median ages than males in all ethnic groups except Blacks and Hispanics. Whites have the highest projected median age between 1990 and 2040 (from 34 to 42.5 years), followed by American Indians (from 29.5 to 35 years) and Asians (from 23 to 32.5 years) *(fig. 130)*. Hispanics and Blacks have the lowest projected median ages (from 24 to 26 years, and 26.5 to 29 years, respectively) through the forecast period.

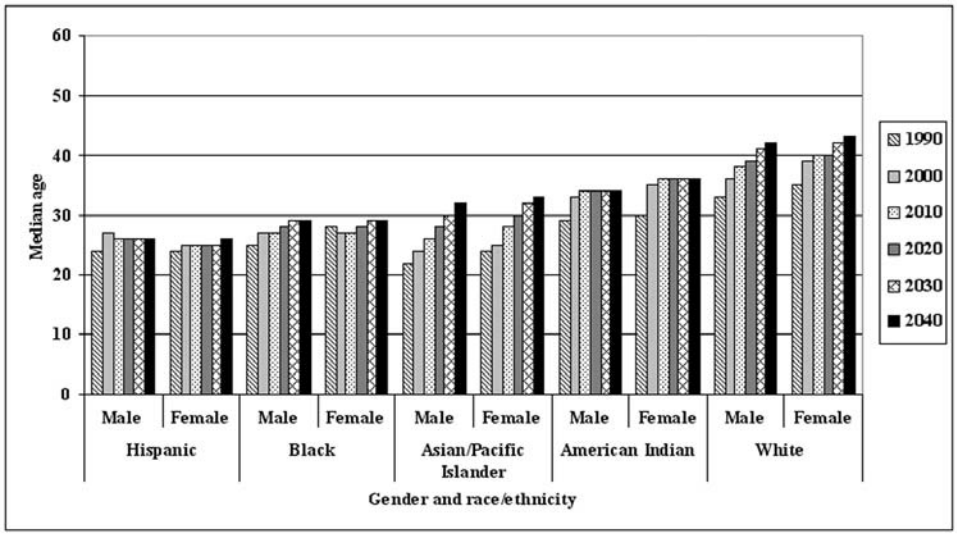


Figure 130—Median age by gender and race/ethnicity, San Joaquin County, 1990-2040.

Source: State of California Department of Finance 1998

Development and Real Estate

With the recession, residential construction in incorporated and unincorporated areas fell sharply (*fig. 131*). Post-recession recovery was steady in all types of

construction, except for non-residential building in unincorporated areas, a low and stable proportion in the county.

In 1990, San Joaquin County had 158,156 households and 166,274 housing units. The vast majority (95.1 percent) of housing units were occupied; few (4.9 percent) were vacant (United States Census Bureau 1990a). Of the occupied housing units, the majority (57.6 percent) were owner-occupied, though 42.4 percent were renter-occupied (United States Census Bureau 1990a).

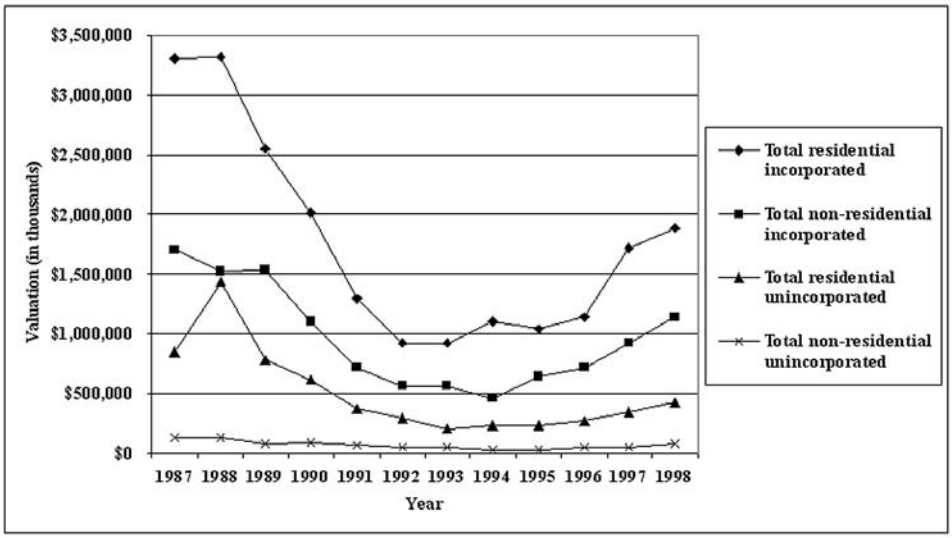


Figure 131—Building trends, San Joaquin County, in 1998 dollars, 1987-1998.

Source: Construction Industry Research Board 1988-1999

The median value of owner-occupied housing units in 1990 was $121,700, and the median rent was $489 per month. The county has a large proportion of housing stock that predates World War II; thus, rehabilitation efforts are a major thrust in the county's housing program (County of San Joaquin 1992). Housing affordability is also a major concern in the county. Housing affordability is likely to worsen as a result of upward pressure on home prices generated by future population and employment growth, loss of Federal funding, and the lag in the construction of multi-family housing (County of San Joaquin 1992).

Quality of Life Indicators

Transportation, Commuting, and Employment—In 1990, there were 191,111 workers 16 and older in San Joaquin County, and an average of 1.7 vehicles per household. Almost 17 percent of San Joaquin County residents worked outside the county. The majority (74.6 percent) of workers drove to work alone although some carpooled to work (*fig. 132*). Very few used public transportation. The average travel time to work was 21.9 minutes compared to the average of 20.3 minutes for the Central Valley counties in this assessment.

Employment in service, retail, and manufacturing has grown while agribusiness employment has declined (County of San Joaquin 1992). Food processing has been one of the area's largest manufacturing activities. A greater emphasis on durable goods including electronics manufacturing is becoming apparent (County of San Joaquin 1992).

Some county areas have become bedroom communities to the Tri-Valley employment centers in Contra Costa and Alameda Counties, affecting the quality of life for the county's residents (County of San Joaquin 1992). As the number of trips, vehicle hours traveled, and vehicle hours of delay increase, the circulation system becomes ineffective. The impacts of being a bedroom community—poor circulation, costly road improvements, and poor air quality—will affect economic development in the county (County of San Joaquin 1992). Historically, Stockton has been the regional employment center of the county because of its central

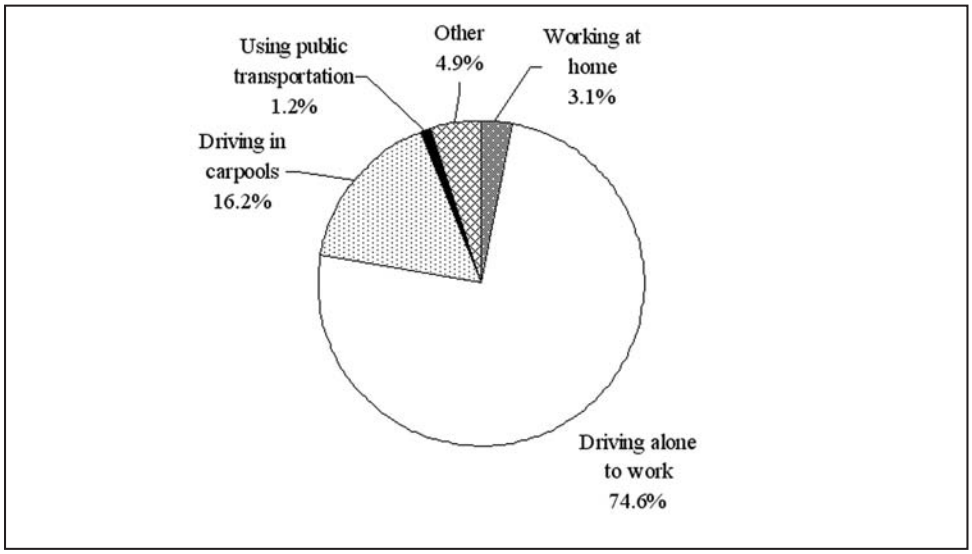


Figure 132—Commuting patterns, workers 16 and older, San Joaquin County, 1990.

Source: United States Census Bureau 1990b

location and access to regional air, land, and water transportation systems. In addition to Stockton, the areas around Tracy, Manteca, Lodi and more recently, the south county area, have been experiencing commercial and industrial growth (County of San Joaquin 1992).

Education—San Joaquin County serves the largest number of students in its elementary schools (*table 94*). The county has more elementary schools (112) than middle and high schools (15 each). Average enrollment per school is greatest at the high school level, which is the pattern across the assessment area and all counties. San Joaquin County serves slightly more than 2 percent of the assessment area's school enrollments. County schools have the 13th highest enrollment overall, and they are 8th in highest average enrollment per school. Students in 2nd through 11th grade were tested using the Stanford 9 at 132 of the county schools. San Joaquin County's ranking in academic performance for 1999 was a mean of 4.12 out of 10 (based on the similarity index, www.cde.ca.gov), indicating below average performance compared to similar schools. Although 32.6 and 28.8 percent of schools in the county performed well below or below average compared to similar schools, 9.1 percent were well above average and 7.5 percent were above average.

Table 94—*Enrollment and number of schools, San Joaquin County, 1998-1999.*

Type of school	Total enrollment	Percent of total enrollment	Number of schools	Average enrollment/school
Elementary	66,715	61.7	112	596
Middle/Junior High	12,676	11.7	15	845
High School	28,690	26.5	15	1,913
Total	108,081	100.0	142	-

Source: California Department of Education 1998a

Health Care—The largest number of health care establishments in the county deliver ambulatory health care services, followed by nursing and residential care, and social assistance (*fig. 133*). There are no hospitals in the county as reported by the U.S. Census Bureau. However, the county has eight hospitals, representing 2.0 percent of the assessment area's total hospitals (ahd.tool.net/list.php3/mstate=ca). A majority (75.0 percent) of the hospitals are nonprofit, with the balance classified as county (12.5 percent), or for-profit (12.5 percent) facilities. For those hospitals

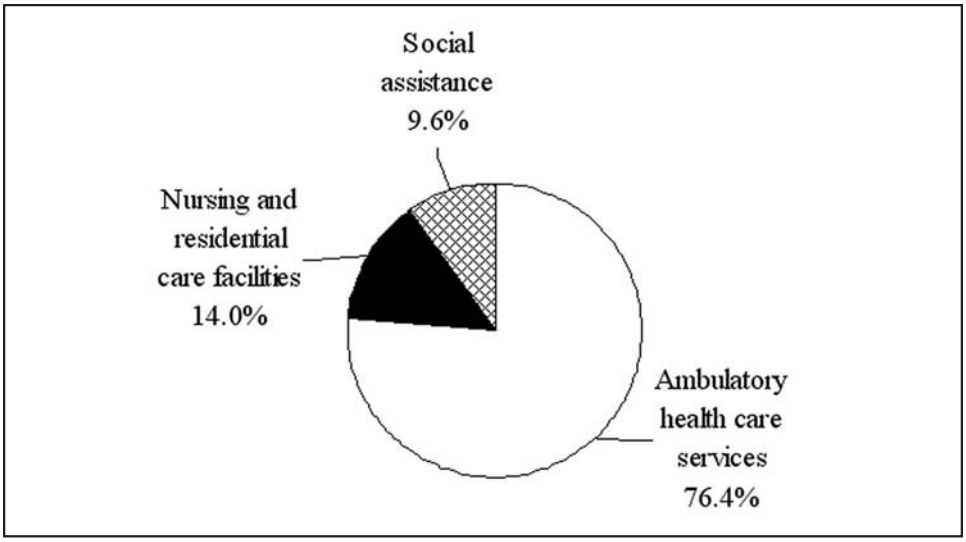


Figure 133—Health care and social assistance establishments, San Joaquin County, 1997.

Source: United States Census Bureau 1999a

with reported data (7 hospitals), a total of 1,213 beds and 260,956 total patient days were recorded in 1999. The county ranked 13th in number of hospitals, comparable to its 15th place ranking in population.

Recreation and Tourism—Among the assessment area's 26 counties, San Joaquin ranked 17th in the 1997 economic census in accommodations and foodservices, and 15th in arts, entertainment, and recreation (United States Census Bureau 1999b, 1999c). A total of 826 accommodation and food-services establishments, with $376,916,000 in receipts, was reported. Arts, entertainment, and recreation services involved 109 establishments, with receipts totaling $67,007,000. Recreational sites of interest include Caswell Memorial State Park, offering camping, fishing, picnicking, and other outdoor pursuits, and the Durham Ferry State Recreation Area (Thomas Bros. Maps 1998).

Environmental Indicators

Water Quality—San Joaquin County crosses six watersheds: the Middle San Joaquin-Lower Merced-Lower Stanislaus, the San Joaquin Delta, the Lower Calaveras-Mormon Slough, the Lower Consumnes-Lower Mokelumne, the Panoche-San Luis Reservoir, and the San Francisco Bay (www.epa.gov/surf3/surf98/county.html). (Watersheds frequently cross county boundaries. Therefore, some counties may include watersheds that are also located in other counties.) The Middle San Joaquin-Lower Merced-Lower Stanislaus, the San Joaquin Delta, and the Lower Consumnes-Lower Mokelumne watersheds were all assigned a "5" by the EPA, indicating "more serious water quality problems but low vulnerability to pollution stressors." (According to the EPA's Index of Watershed Indicators procedures, a pollution stressor includes aquatic/wetland species at risk, toxic loads above limits, urban runoff potential, agricultural runoff potential, population change, hydrologic modification, estuarine pollution susceptibility, and atmospheric deposition.) The San Francisco Bay was assigned a "2," indicating "better water quality but high vulnerability to pollution stressors." Data are not available for the Lower Calaveras-Mormon Slough and the Panoche-San Luis Reservoir watersheds.

Air Quality—San Joaquin County has the 15th largest population of the 26 counties, paired with the 16th highest total organic gas (TOG) emissions, the 14th highest reactive organic gas (ROG) and carbon monoxide (CO) emissions, the 13th highest sulfur oxide (SOx), the 12th highest nitrogen oxide (NOx) emissions, and the 10th highest particulates (*table 95*). The majority of emissions are projected for marginal decreases dependent upon emission type. Particulates are expected to increase, primarily from area-wide sources, according to the California Air Resources Board (1999).

Table 95—*1996 estimated and 2010 forecasted annual average emissions, San Joaquin County (cells do not add to column totals due to rounding error).*

Year	Emission category	Emission type[1]						
		TOG	ROG	CO	NOx	SOx	PM	PM10
1996	Stationary	14	10	5	17	3	7	4
	Area-Wide	83	19	42	2	0	77	41
	Mobile	35	31	290	49	1	2	2
	Natural	0	0	0	0	-	0	0
	Total	130	59	340	68	5	87	47
2010	Stationary	16	12	6	21	4	8	5
	Area-Wide	85	20	43	2	0	83	44
	Mobile	17	16	200	34	1	2	2
	Natural	-	-	0	-	-	-	-
	Total	120	47	240	57	6	93	50

Source: California Air Resources Board 1999

[1] TOG: total organic gases; ROG: reactive organic gases; CO: carbon monoxide; NOx: nitrogen oxides; SOx: sulfur oxides; PM: particulate matter; PM10: particulate matter less than or equal to 10 microns (*appendix D*).

Implications

San Joaquin County is facing tremendous growth pressures from the San Francisco Bay Area. These pressures are threatening agriculture in the county as urban uses encroach into farming areas. This encroachment leads to greater potential for land use conflicts between farmers and new residents who do not want to contend with normal agricultural operations that generate dust, noise, and odors. The division of large agricultural parcels into smaller lots of 10 acres or less prohibits the efficient use of land for commercial agriculture. The cost of operations then increases, which leads to future pressure to sell or subdivide (County of San Joaquin 1992).

Linkages between the San Francisco Bay Area, the Sacramento metropolitan area, and the Central Valley are beginning to strain the county's infrastructure, particularly its roads, water supply systems, wastewater treatment facilities, and drainage systems. Projections for Interstate 205 indicate that it will need to be expanded to eight lanes to handle the commuters crossing the Altamont Pass each day. Other infrastructure improvements such as the expansion of wastewater treatment plants and water supply systems have been hampered by cost (County of San Joaquin 1992).

Water supply is a growing concern in the county. Continuous withdrawal from the groundwater has resulted in an overdraft situation, when water is withdrawn faster than it is replenished. This has led to three major problems: groundwater is no longer a long-term reliable source; the overdraft situation has resulted in saltwater intrusion, diminishing the quality and usefulness of existing groundwater supplies; and the overdraft of groundwater may have contributed to the sinking of delta lands (County of San Joaquin 1992). Without the introduction of supplemental water supplies and a more aggressive program for groundwater management, groundwater pumping will continue to decrease water levels in the San Joaquin Groundwater Basin (County of San Joaquin 1992).

The county has diverse vegetation and wildlife habitats that vary with geographic subregion. The delta is one of the State's most biologically productive areas because it is the meeting point between freshwater and saline environments. The marshlands are habitat for several endangered species, and the waterways and adjacent farmland are wintering areas along the Pacific Flyway, one of North America's primary waterfowl migration routes (County of San Joaquin 1992). Mule deer inhabits the southwest foothills of the county, the only big game species in the county, along with other protected species. The Sierra Nevada foothills contain a mixture of grasslands, woodlands, and riparian habitats, which provide

food and cover for a number of species. The ability of natural resources to sustain and regenerate themselves in the face of commercial agriculture or urbanization is extremely limited (County of San Joaquin 1992). How the cities and county will strike a balance between environmental protection and economic development is not yet clear.

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Stanislaus County

- Commuter-driven urban expansion along Highway 99 is occurring rapidly.
- Agriculture and food processing play an important role in the economy.
- E & J Gallo, the world's largest wine company, is located in the city of Modesto and is the county's largest private employer.

History

Stanislaus County falls between the coastal range of mountains on the west and the foothills of the Sierra Nevada on the east (*fig. 134*). It is situated in the San Joaquin Valley. According to Gooch (1988), it is not known whether the first permanent residents of the area were the Yokut Indians, but by historic times the Yokuts did occupy the San Joaquin Valley from Tehachapi in the south to near Sacramento in the north. An estimated 50 to 60 tribes of Yokuts, with a total population of approximately 35,000 people, lived in the valley, making them the most numerous of all tribes in California. The Yokuts built their villages along rivers and creeks. The staple food was the acorn, and hand-woven baskets were very important to the hunting and gathering economy of the Yokuts. Most of the Indians who lived in this area ended up working at the San Jose Mission. However, the mission Indians rebelled in 1775, 1781, and 1824 and were suppressed by soldiers. Conflicts with Indians in the territory continued through the 1820s. Most of the Yokuts in the Stanislaus County region had been captured and taken to the missions so that by 1790 hardly any remained on the west side of the valley, and skirmishes with the Spanish and Mexican soldiers continued to decimate the population.

The first profitable enterprise carried on in the San Joaquin Valley was trapping. Beaver, land otter, mink, muskrat, and fox could all be found along the various waterways in the region (Brotherton 1982).

Most of the land in the county was devoted to grazing until 1867 (Elliott and Moore 1881). The chief products of this county in early times were cattle and gold (Elliot and Moore 1881). After 1867, former grazing land was brought under cultivation. The transition from cattle to grain did not occur without a struggle between factions, with the dry farmer (non-irrigated farms) finally winning over the cattleman (Brotherton 1982). During the Gold Rush, new settlements sprang up. Many realized that fortunes were to be made not in mining or panning for gold, but in selling food, clothing, and other supplies to miners. A major problem in the

Stanislaus County region was crossing the San Joaquin, Stanislaus, and Tuolumne Rivers. Toll ferries were built so that travelers and freight could get to the southern mines. Eventually 30 different ferries crisscrossed the rivers of the region. River ferries played a very important role in the county from 1848 until the 1890s when bridges and roads were constructed (Brotherton 1982).

Stanislaus County was once part of Tuolumne County, but in the 1850s residents complained that the county was too big. The county was founded in 1858 (www.californiacv.com/stanislaus.htm). The coming of the railroad in the late 1800s doomed the towns dependent on rivers for their livelihood and molded the pattern of settlement into its current form (Brotherton 1982).

In addition to railroads, another major influence in the growth of the county was the development of irrigation systems. Even if the railroads had not forced the ferries out of business, the appropriation of river water for irrigation and the construction of storage dams would have accomplished the same end (Brotherton 1982). Irrigation meant that a greater variety of crops could be produced, most more profitable than wheat, an earlier farming mainstay. Evidence of soil depletion could be seen in the decline of rich harvests (www.library.csustan.edu/bsantos/agric.html). Different strains of wheat were introduced with the hope of restoring the crop, but different varieties in combination with summer fallowing were not

Figure 134—Stanislaus County (shaded area) is north of Merced County.

Source: 50 Individual States—Counties 1995

effective. Irrigation seemed to be the answer, and most landowners welcomed it as a solution to their predicament. Orchards and vineyards could be planted with the emergence of irrigation. The great influx of migrants from the Midwest provided the labor force needed to pick crops and work in canneries and dehydrating plants. The result of irrigation was that wheat declined in importance in the county, and other agricultural products took precedence (www.library.csustan.edu/bsantos/agric.html).

Growth in the county was slow but steady until the 1970s. The population grew rapidly when commuters from the San Francisco Bay Area began to move into the San Joaquin Valley in order to find affordable housing. A major concern about population increase in the county then and now is the construction of housing units on prime agricultural land.

Stanislaus County Today

The county is 79.4 percent farmland. Most residents live in incorporated cities (Umbach 1997). Agriculture is important in the county and the five leading commodities produced are milk, almonds, chickens, turkeys, and walnuts (Munroe and Jackman 1997). The market value of agricultural products sold increased to $1,208,524,000 from 1992 to 1997, an increase of 35 percent (United States Department of Agriculture 1997). In addition to food processing, new enterprises in the county include manufacturing, billing dispatch, and postal encoding (Munroe and Jackman 1997).

Sociodemographic Characteristics

Projected Population—DOF is the only agency that calculated population projections for Stanislaus County (*table 96*). An increase in the population is expected through the forecast period. Each decade DOF projects that the population will increase by a minimum of approximately 84,000 people (1990 to 2000) to a maximum of approximately 152,000 people (2030 to 2040).

Table 96—*Population projections, Stanislaus County, 1990-2040.*

Source	1990	2000	2010	2020	2030	2040
U.S. Census	370,522[1]	446,997	-	-	-	-
DOF	375,089[2]	459,025	585,519	708,950	846,998	998,906

Source: United States Census Bureau 1990a and 2000, State of California Department of Finance 1998

[1] Data from April 1.

[2] Data from July 1.

Ethnic and Racial Diversity—In 1990, Stanislaus County was predominantly White. The next largest ethnic group was Hispanic. Blacks, Asians, and American Indians represented less than 8 percent of the total population. By 2000, Whites were still the majority although their proportion of the population shifted from 70.5 to 57.3 percent of the population. Hispanics were almost one-third of the population. Blacks, Asians, and American Indians still represented less than 8 percent of the total population (*table 97*).

Table 97—*1990 and 2000 population, Stanislaus County.*

	1990	2000
	---------- Percent	----------
Non-Hispanic White	70.5	57.3
Hispanic all races	21.8	31.7
Non-Hispanic Black	1.7	2.4
Non-Hispanic Asian	4.9	4.4
Non-Hispanic American Indian	0.9	0.8
Non-Hispanic other	0.2	0.2
Non-Hispanic two or more races	N/A	3.2

Source: United States Census Bureau 1990a, 2000

In 1990, 14.3 percent of Stanislaus County's population was foreign-born. One-fourth of residents age 5 and older spoke a language other than English at home. Of those, the majority (64.1 percent) spoke Spanish, and 35.9 percent spoke a language other than English or Spanish (United States Census Bureau 1990b).

Linguistic diversity is also reflected within the schools in the region. The majority of LEP students in Stanislaus County public schools speak Spanish—mirroring languages spoken at home—or a selection of other languages (*fig. 135*). (Other languages include Vietnamese, Cantonese, Pilipino, Korean, Armenian, Mandarin, Russian, Arabic, Mien, Farsi, and other languages of China and the Philippines.) In 1997-98, 18.4 percent of Stanislaus County's public school students were LEP.

Projected Ethnic and Racial Diversity—As the population in Stanislaus County increases, ethnic and racial diversity is projected to increase through 2040. Hispanics, Asians, and Blacks are expected to increase as a proportion of the population, while Whites are expected to decrease as a proportion of the population (*fig. 136*). Only marginal change is expected among the American Indian population.

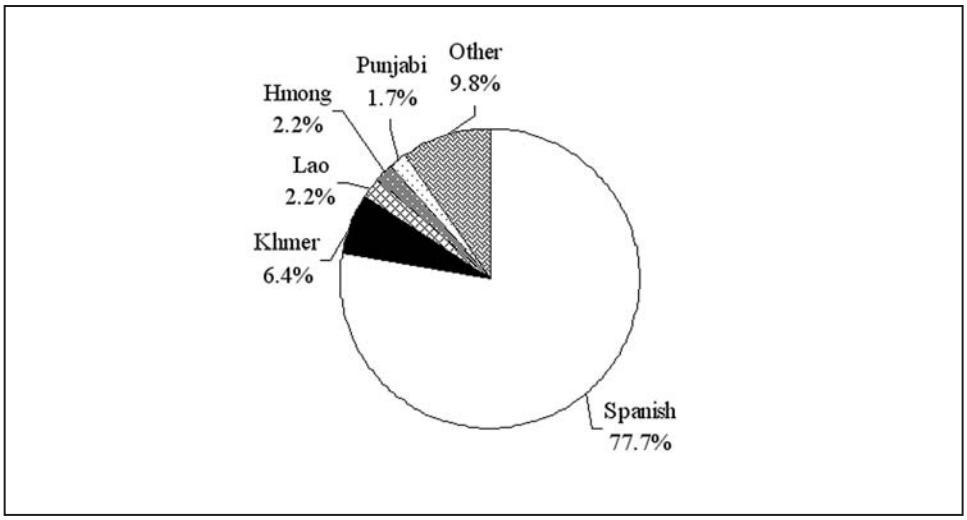


Figure 135—Limited-English-Proficient (LEP) students in Stanislaus County public school districts, by language, 1997-1998.

Source: California Department of Education 1998b

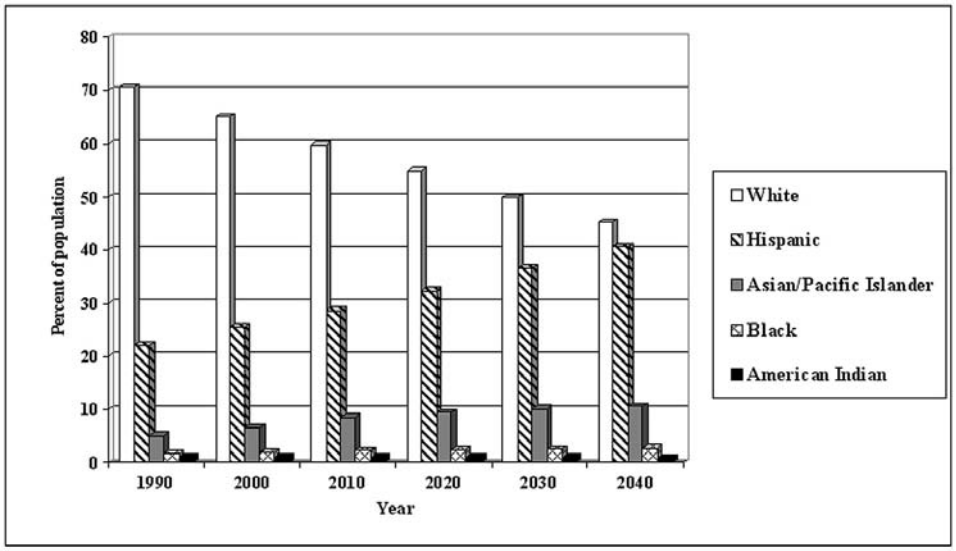


Figure 136—Racial and ethnic diversity trends for Stanislaus County.

Source: State of California Department of Finance 1998

The proportion of Whites is expected to decrease by approximately 25 percent through the forecast period, while Hispanics, Asians, and Blacks increase by approximately 19, 6, and 1 percent, respectively (*table 98*).

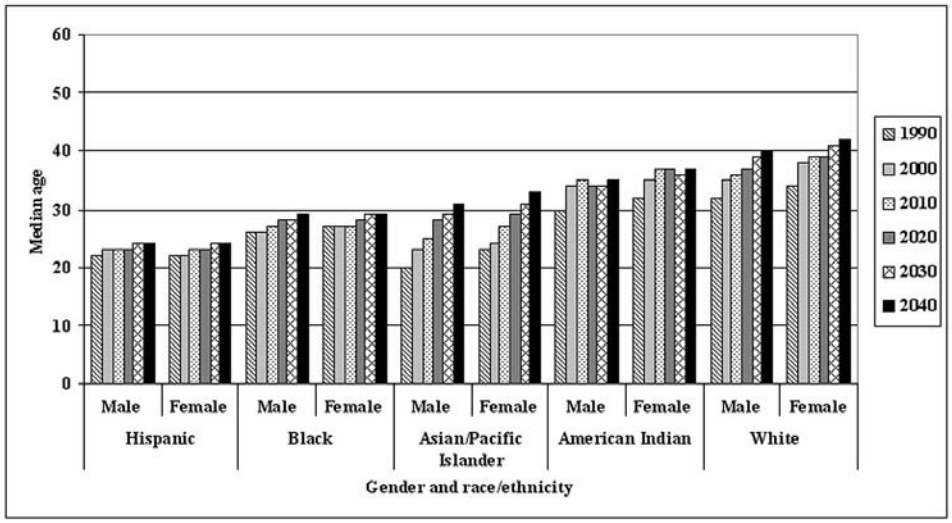
Table 98—*Percent race/ethnicity and percent change in Stanislaus County, 1990-2040.*

Racial/ethnic group	1990	2000	2010	2020	2030	2040	Cumulative percent change
	Year						
White	70.52 -	65.11 (-5.41)	59.79 (-5.32)	54.81 (-4.98)	49.85 (-4.97)	45.21 (-4.63)	-25.31
Hispanic	21.95 -	25.38 (3.43)	28.66 (3.28)	32.43 (3.78)	36.55 (4.11)	40.58 (4.03)	18.63
Asian/Pacific Islander	4.95 -	6.62 (1.67)	8.43 (1.81)	9.40 (0.97)	10.13 (0.72)	10.64 (0.51)	5.69
Black	1.66 -	1.95 (0.29)	2.20 (0.25)	2.44 (0.24)	2.59 (0.15)	2.71 (0.12)	1.05
American Indian	0.93 -	0.95 (0.02)	0.92 (-0.03)	0.91 (-0.01)	0.89 (-0.02)	0.86 (-0.03)	-0.06

Source: State of California Department of Finance 1998

Along with projected changes in race and ethnicity, changes in the area population's age are projected. Projected median age for Stanislaus County residents varies by race/ethnicity and gender. Females are projected to have higher median ages than males in all ethnic groups except Blacks and Hispanics. Whites have the highest projected median age between 1990 and 2040 (from 33 to 41 years), followed by American Indians (from 31 to 36 years) and Asians (from 21.5 to 32 years) (*fig. 137*). Hispanics and Blacks have the lowest projected median ages (from 22 to 24 years, and 26.5 to 29 years, respectively) through the forecast period.

Figure 137—Median age by gender and race/ethnicity, Stanislaus County, 1990-2040.



Source: State of California Department of Finance 1998

Development and Real Estate

Building trends in Stanislaus County from 1987 to 1998 reveal that residential construction in incorporated areas represented the largest amount of construction in the area (*fig. 138*). Peaking in 1989, recession brought a reduction in this type of construction. All other types of building in the county represented much smaller valuation amounts. Post-recession recovery of residential construction in incorporated areas was slow.

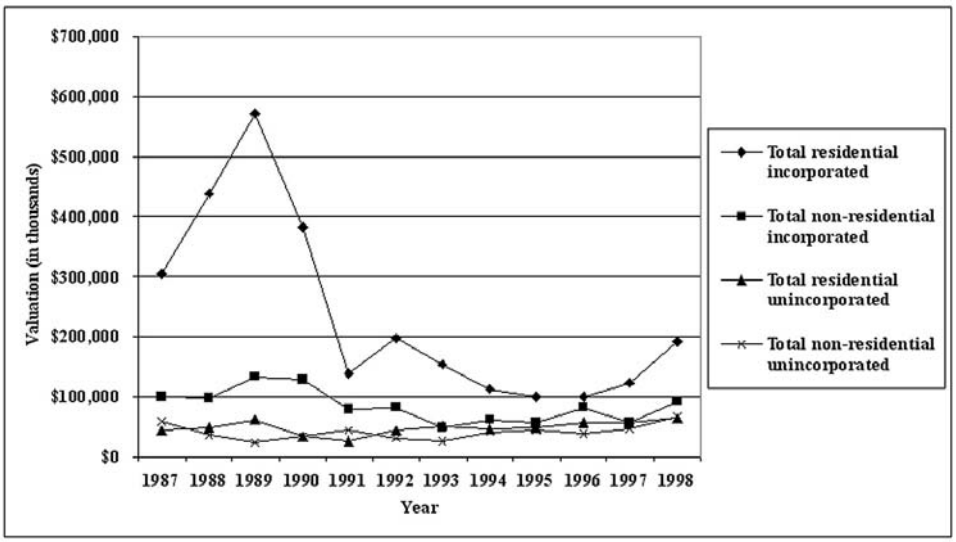


Figure 138—Building trends, Stanislaus County, in 1998 dollars, 1987-1998.

Source: Construction Industry Research Board 1988-1999

In 1990, Stanislaus County had 125,375 households and 132,027 housing units. The vast majority (95 percent) of housing units were occupied; a few (5 percent) were vacant (United States Census Bureau 1990a). Of the occupied housing units, the majority (60.7 percent) were owner-occupied, though 39.3 percent were renter-occupied (United States Census Bureau 1990a). The median value of owner-occupied housing units in 1990 was $124,300, and the median rent was $482 per month.

Quality of Life Indicators

Transportation, Commuting, and Employment—In 1990, there were 147,406 workers 16 and older in Stanislaus County, and an average of 1.8 vehicles per household. Almost 17 percent of Stanislaus County residents worked outside the county. The majority (76.7 percent) of workers drove to work alone, although some carpooled to work (14.2 percent) (*fig. 139*). Very few used public transportation. The average travel time to work was 22.5 minutes compared to the average of 20.3 minutes for the Central Valley counties in this assessment.

Although agribusiness has been important to the economy of the region, other economic sectors are expanding. In recent years, the county has become a retail and medical center for the region (www.californiacv.com/stanislaus.htm).

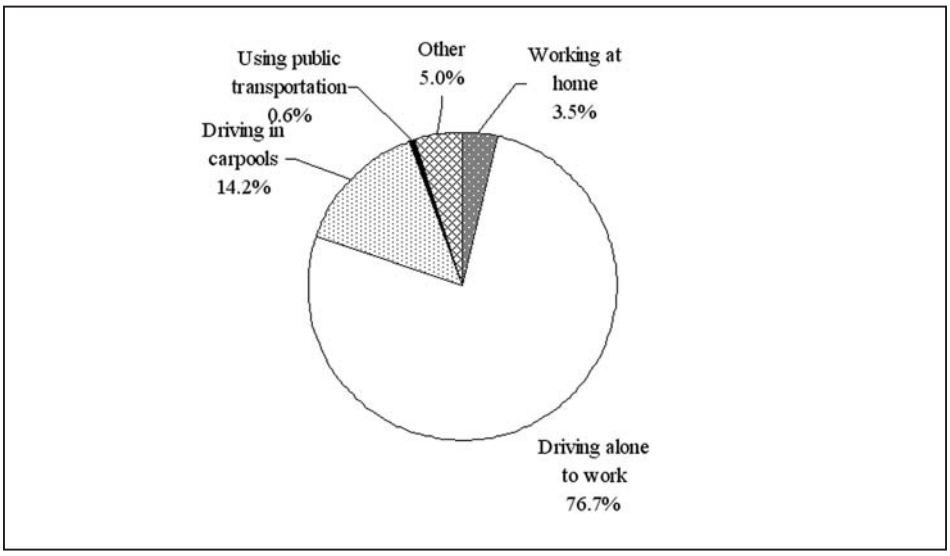


Figure 139—Commuting patterns, workers 16 and older, Stanislaus County, 1990.

Source: United States Census Bureau 1990b

As of February 1999, the sectors of the economy with the largest numbers of employees were services (21.1 percent), retail trade (18.5 percent), manufacturing (18.4 percent), government (16.3 percent), and agriculture-forestry-fishing (10.8 percent) (www.californiacv.com/stanislaus.htm). In terms of revenue, the biggest manufacturing industries are food and kindred products, paper and allied products, and fabricated metal products. The largest private employers in the county include the Gallo Winery, Tri-Valley Growers, and Foster Farms (www.californiacv.com/stanislaus.htm).

Education—Stanislaus County serves the largest number of students in its elementary schools (*table 99*). The county has more elementary schools (90) than middle and high schools (18 and 13, respectively). Average enrollment per school is greatest at the high school level, which is the pattern across the assessment area and all counties. Stanislaus County serves slightly less than 2 percent of the assessment area's school enrollments. County schools have the 15th highest enrollment overall, and they are 11th in highest average enrollment per school. Students in 2nd through 11th grade were tested using the Stanford 9 at 108 of the county schools. Stanislaus County's ranking in academic performance for 1999 was a mean of 6.32 out of 10 (based on the similarity index, www.cde.ca.gov), indicating higher-than-average performance compared to similar schools. Although 10.2 and 19.5 percent of schools in the county performed well below or below average compared to similar schools, 25 percent were well above average, and 27.8 percent were above average.

Table 99—*Enrollment and number of schools, Stanislaus County, 1998-1999.*

Type of school	Total enrollment	Percent of total enrollment	Number of schools	Average enrollment/school
Elementary	50,646	56.7	90	563
Middle/Junior High	14,890	16.7	18	827
High School	23,850	26.7	13	1,835
Total	89,386	100.0	121	-

Source: California Department of Education 1998a

Health Care—The largest number of health care establishments in the county deliver ambulatory health care services, followed by social assistance, nursing and residential care, and hospital care (*fig. 140*). The county has two hospitals, representing 0.5 percent of the assessment area's total hospitals (ahd.tool.net/list.php3/mstate=ca, United States Census Bureau 1999a). One of the two hospitals is classified as nonprofit, the other as county. A total of 443 beds and 13,611,626 total patient days were recorded in 1999. The county ranked 25th in number of hospitals, in contrast to its 16th place ranking in population.

Recreation and Tourism—Among the assessment area's 26 counties, Stanislaus ranked 19th in the 1997 economic census in accommodations and food services, and 19th in arts, entertainment, and recreation (United States Census Bureau 1999b, 1999c). A total of 676 accommodation and food-services establishments, with $312,699,000 in receipts, was reported. Arts, entertainment, and recreation services involved 81 establishments, with receipts totaling $33,542,000. Special recreational opportunities of interest in the county include the Woodward Reservoir, Frank Raines County Park, and the factory tour offered by the Hershey Chocolate Company in Oakdale (Thomas Bros. Maps 1998).

Environmental Indicators

Water Quality—Stanislaus County crosses 10 watersheds: the Middle San Joaquin-Lower Chowchilla, the Middle San Joaquin-Lower Merced-Lower Stanislaus, the Lower Calaveras-Mormon Slough, the Upper Merced, the Upper Tuolumne, the Upper Stanislaus, the Panoche-San Luis Reservoir, the Coyote, the San Francisco

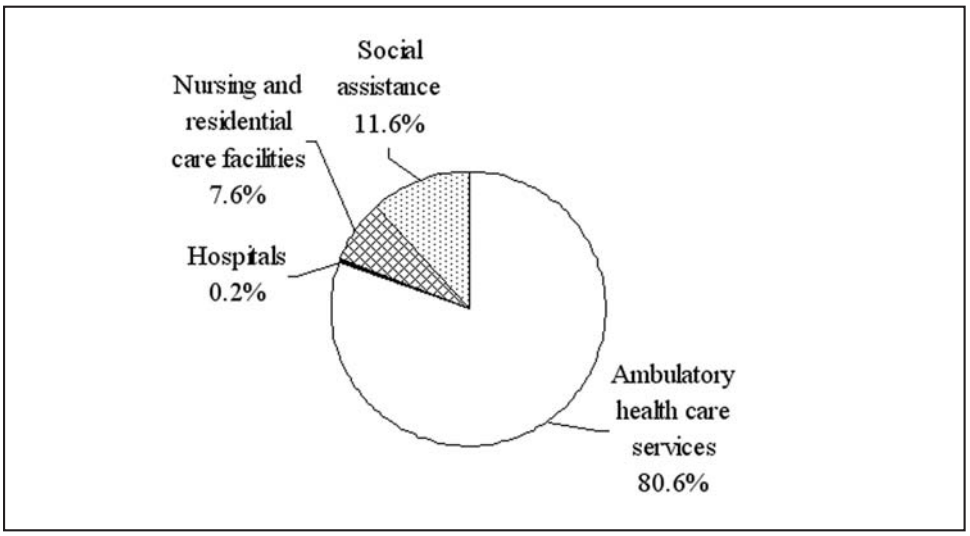


Figure 140—Health care and social assistance establishments, Stanislaus County, 1997.

Source: United States Census Bureau 1999a

Bay, and the Pajaro (www.epa.gov/surf3/surf98/county.html). (Watersheds frequently cross county boundaries. Therefore, some counties may include watersheds that are also located in other counties.) The Middle San Joaquin-Lower Chowchilla, the Middle San Joaquin-Lower Merced-Lower Stanislaus, the Upper Merced, the Coyote, and the Pajaro watersheds were assigned a "5" by the EPA, indicating "more serious water quality problems and low vulnerability to pollution stressors." (According to the EPA's Index of Watershed Indicators procedures, a pollution stressor includes aquatic/wetland species at risk, toxic loads above limits, urban runoff potential, agricultural runoff potential, population change, hydrologic modification, estuarine pollution susceptibility, and atmospheric deposition.) The Upper Tuolumne watershed was assigned a "3," indicating "less serious water quality problems and low vulnerability to pollution stressors." The San Francisco Bay was assigned a "2," indicating "better water quality but high vulnerability to pollution stressors." Data are not available for the Lower Calaveras-Mormon Slough, the Upper Stanislaus, and the Panoche-San Luis Reservoir watersheds.

Air Quality—Stanislaus County has the 16th largest population of the 26 counties, paired with approximately similar rankings on all emissions types except for total organic gas (TOG) emissions, in which they are ranked 4th highest (*table 100*). The majority of emissions are projected for marginal decreases, dependent upon emission type. Particulates are expected to increase, primarily from area-wide sources, according to the California Air Resources Board (1999).

Implications

Stanislaus County population is expected to more than double by 2040. This does not make Stanislaus unique, but like San Joaquin and San Benito Counties, Stanislaus is especially prone to urban development because of its proximity to the San Francisco Bay Area. More affordable housing costs make Stanislaus County attractive to many Silicon Valley commuters, since Stanislaus County is just east of Santa Clara County.

One outcome of urban development is a more diversified economy (www.californiacv.com/stanislaus.htm), but other effects can include increased air pollution, potential loss of productive farmland, and impacts on a limited water supply. There are efforts to preserve farmland through philanthropic efforts such as the Packard Foundation. The Foundation is expected to spend more than $175 million by 2002 to conserve Central Valley farmland and other endangered areas on the coast and in the Sierra Nevada (Arax 1999). However, it remains to be seen whether such efforts can stem the tide of urban growth that is expected to consume major portions of this State's most productive farmland.

Table 100—*1996 estimated and 2010 forecasted annual average emissions, Stanislaus County (cells do not add to column totals due to rounding error).*

Year	Emission category	Emission type[1]						
		TOG	ROG	CO	NOx	SOx	PM	PM10
1996	Stationary	64	7	2	9	2	4	2
	Area-Wide	280	32	45	2	0	69	36
	Mobile	24	21	200	35	1	2	1
	Natural	0	0	0	0	-	0	0
	Total	370	60	250	45	3	74	40
2010	Stationary	56	8	2	10	3	5	3
	Area-Wide	280	35	68	2	0	80	44
	Mobile	11	10	120	22	1	1	1
	Natural	0	-	1	-	-	0	0
	Total	350	53	200	34	3	86	47

Source: California Air Resources Board 1999

[1] TOG: total organic gases; ROG: reactive organic gases; CO: carbon monoxide; NOx: nitrogen oxides; SOx: sulfur oxides; PM: particulate matter; PM10: particulate matter less than or equal to 10 microns (*appendix D*).

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Summary and Implications for the Central Valley

Farmland conversion nationwide is estimated between 800,000 and 3 million acres per year (Carver and Yahner 1996). In California, the amount of farmland lost to urban uses is estimated at 75,000 acres per year (LaGanga 1990a). Much of the land being lost is prime farmland, disproportionately located near cities. Fifty-eight percent of the total U.S. agricultural production comes from counties that the Census Bureau classifies as metropolitan and their adjoining counties (Carver and Yahner 1996). The Central Valley exemplifies many of the challenges of rapid farmland conversion.

Agricultural land in the Central Valley is threatened by urban growth in the region. The challenge for the Central Valley now and into the future will be how to accommodate economic growth while preserving the rich agricultural land of the Valley. The effects on the Central Valley are not restricted to a loss of prime agricultural land, but also include fiscal problems in Central Valley cities and counties due to insufficient planning for growth and increasing conflict between

farmers and their urban neighbors at the urban/agricultural edge (Agricultural Task Force for Resource Conservation and Economic Growth in the Central Valley 2000). In addition to its economic value, agricultural land can provide amenities that are more difficult to quantify. For example, agricultural land provides open space, flood control protection, a location for groundwater recharge, and habitat for a large variety of species (Agricultural Task Force for Resource Conservation and Economic Growth in the Central Valley 2000). In some cases, agricultural land is "retired" for open space preservation, constituting a further loss of productive agricultural land in economic calculations.

Although the average productivity of U.S. agriculture has grown, there is evidence that the increased use of fertilizer has reached a point of diminishing returns (Platt 1996). Other problems that plague the continued productivity of farmland are the ability to find new sources of water, environmental concerns over certain chemical pesticides, increasing use of marginal lands, and soil erosion (Platt 1996). The U.S. Department of Agriculture estimates that 44 percent of all cropland nationally is eroding at rates exceeding the normal rate of replacement through natural processes (Platt 1996). Using marginal land for agriculture increases costs because more irrigation water and fertilizer may have to be used. Additionally, in order to make up farming costs, the tree or crop may be pushed to be more productive, thereby shortening its life span (LaGanga 1990b).

Another difficulty involved in stopping farmland conversion to urban uses is that farmland is privately owned. When developers offer $75,000 to $100,000 an acre, often a one-hundredfold increase over the original purchase price, the incentive for the farmer to sell is very strong. For many farmers, the ability to sell their land becomes the closest thing to a retirement account in a risky business (LaGanga 1990b). Because the average age of a California farmer is 50 years old, guaranteeing retirement is an immediate concern (Great Valley Center 1998). Proposals to protect farmland include offering tax breaks to farmers to keep their land in production and the purchase of development rights by governmental agencies or nonprofit organizations so that the land remains as farmland or as open space. However, acquiring the financial resources to purchase development rights is the greatest hurdle for implementation for this conservation tactic (Carver and Yahner 1996). Although a variety of farmland protection methods can be employed, their success relies on public and political support (Carver and Yahner 1996).

Although farmland conversion is one of the primary challenges facing the Central Valley region, another challenge looming in the region is that rural areas are poor and are getting poorer. The globalization of the economy and increasing urbanization affect rural communities by restructuring the way wealth is generated away from natural resources (Bradshaw 1992). The result is the development of two societies in rural areas: one composed of affluent newcomers and the other composed of rural residents (Bradshaw 1992). The danger is that rural populations could be left out of the new economy, potentially hastening a societal and economic divide. The primary policy question for Central Valley planners, economists, farmers, and resource managers is whether it is possible to assist and protect the traditional rural communities in the Central Valley while accommodating the urban growth that is occurring in the region.

The form and pace of urban growth in the Central Valley are not just a regional concern, but a national one as well because 25 percent of the nation's food is produced there. The natural resource concerns in the Central Valley go beyond the protection of open space and wildlife habitat, the preservation of air and water quality, and the containment of urban sprawl. Unplanned urban development in this prime agricultural land threatens the very self-sufficiency of the nation's agricultural production.

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VI. The Association of Bay Area Governments (ABAG) Region

ABAG was established in 1961 to promote cooperation on regional issues. ABAG's operations are directed by an Executive Board composed of 38 elected officials from member cities and counties. In the ABAG region there are 100 cities, including the nine counties of Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, Solano, and Sonoma (*fig. 141*). (The assessment includes seven of those nine counties. It excludes Napa and Sonoma Counties.) More than 6 million people live in this 7,000-square-mile area (www.abag.ca.gov) that comprises the fifth largest metropolitan region in the United States (Association of Bay Area Governments 1998). ABAG offers a number of services to its members, including demographic information and data analysis, capital financing, liability and property insurance, workers' compensation administration, conference services, and specialized training programs (www.abag.ca.gov).

There have been various attempts to transform ABAG from a regional advisory board to a regional authority with legislative powers. The first attempt at regional government was made in the 1970s, but it was rejected in the California legislature by one vote. A second attempt to establish regional government in the Bay Area was made in the 1980s. It too was defeated in the legislature by one vote (Scott 1998). Most recently, Bay Vision 2020 began in 1992 to form the nation's first regional government; however, it was blocked by the California legislature (Cervero 1996).

ABAG projects that 1.4 million more people will inhabit the region in 2020 than in 1995 (Association of Bay Area Governments 1998). Despite this increase in population, the region is growing more slowly than the State of California. In absolute numbers, the most significant growth is predicted in Santa Clara, Alameda, and Contra Costa Counties. However, the less populated North Bay counties, including Solano, are projected to have the steepest rates of increase, in part due to the quantities of available land (Association of Bay Area Governments 1997). In order to develop Projections 2000 (Projections 2000 is a synthesis of forecasts of future population, labor force, households, income, and jobs for the San Francisco Bay Area through 2020), ABAG made certain demographic and economic assumptions. ABAG used fertility, mortality, and migration rates as well as an analysis of regional economic factors in developing projections for the region. ABAG also relied on local government input on land uses. A detailed description of these assumptions can be found in *appendix F*.

Open space preservation is a concern in the San Francisco Bay Area given the projected increases in population. The Greenbelt Alliance, founded in 1958, is the Bay Area's leading land conservation and urban planning non-profit organization. The organization has helped preserve farmlands and hillsides in Santa Clara and Sonoma Counties, the San Mateo County coastline, redwood forests above Los Gatos, Pleasanton Ridge, Napa Valley, and Angel Island. In 1990, the organization became the first regional environmental organization to endorse infill housing developments as part of an ongoing effort to promote positive alternatives to sprawl (Greenbelt Alliance and Silicon Valley Manufacturing Group 1999). In 1999, the Greenbelt Alliance joined the Silicon Valley Manufacturing Group, which is composed of leaders in the high-tech industry, in writing a report designed to address the problem of housing in the region.

The region's population is diverse. More than 50 percent of the Bay Area's students K-12 were children of color in 1996; and approximately 12 percent of the region's K-12 students were LEP (Association of Bay Area Governments 1998).

Job growth in knowledge-based industries is expected to be strongest in Santa Clara County and in San Mateo County (Association of Bay Area Governments 1998). Despite an improving economy and the expected strong growth for the future, the median price of a Bay Area home in 1997 was $292,610 in contrast to $186,490 statewide, making home ownership unaffordable for many. Less than 30 percent of households can afford a median priced home in the Bay Area compared to 40 percent in California and more than 50 percent nationwide. The majority (60 percent) of the new housing built in the Bay Area through 2020 will be single-family detached homes, which are unaffordable for many and inaccessible for an aging and disabled population. Employers from various sectors now admit that recruiting new employees is difficult because of housing prices (Marcus 2000).

Figure 141—The Association of Bay Area Governments (ABAG) region is a nine-county area, of which seven counties are included in the assessment (shaded area).

Source: 50 Individual States—Counties 1995

Transportation

Traffic congestion in the Bay Area steadily increased through the 1990s. A significant portion of the congestion during peak hours is the result of Silicon Valley's burgeoning economy (Association of Bay Area Governments 1997). The Bay Area Rapid Transit District (BART) is impressive in its reach, but has not been able to keep up with the growing demand. BART was initially conceived in 1947 to circumnavigate the Bay, providing a rail network encompassing all nine counties. The vision was never implemented, and today BART does not reach the northern Bay area counties or Santa Clara County. Santa Clara County is focusing its efforts on light rail that will connect with existing BART stations on the border with Alameda County (Brinkerhoff 1998).

Other traffic hotspots in the East Bay include the I-580 and I-680 corridors, which connect workers who live in the San Joaquin Valley's still affordable bedroom communities across the Altamont Pass to high-tech companies in the Silicon Valley of Santa Clara County. The congestion on these roads has caused the formation of a three-county partnership between San Joaquin, Santa Clara, and Alameda Counties, which aims to provide a daily commuter train between Stockton and San Jose with nine stops along the way. The $73 million project was conceived in 1990 and begun in 1995. Whether the extensive highway and mass transit improvements keep pace with the area's explosive growth remains to be seen (Bathen 1998).

Cost of Living/Expenditures

The percent of annual income that San Francisco Bay Area residents expended for various items did not change much for the 1986 to 1998 period (*fig. 142*). Residents spent about one-third of their income on housing, similar to the Los Angeles metropolitan area. The next highest expenditures were for "other" and transportation. ("Other" includes alcoholic beverages, personal care products and services, read-

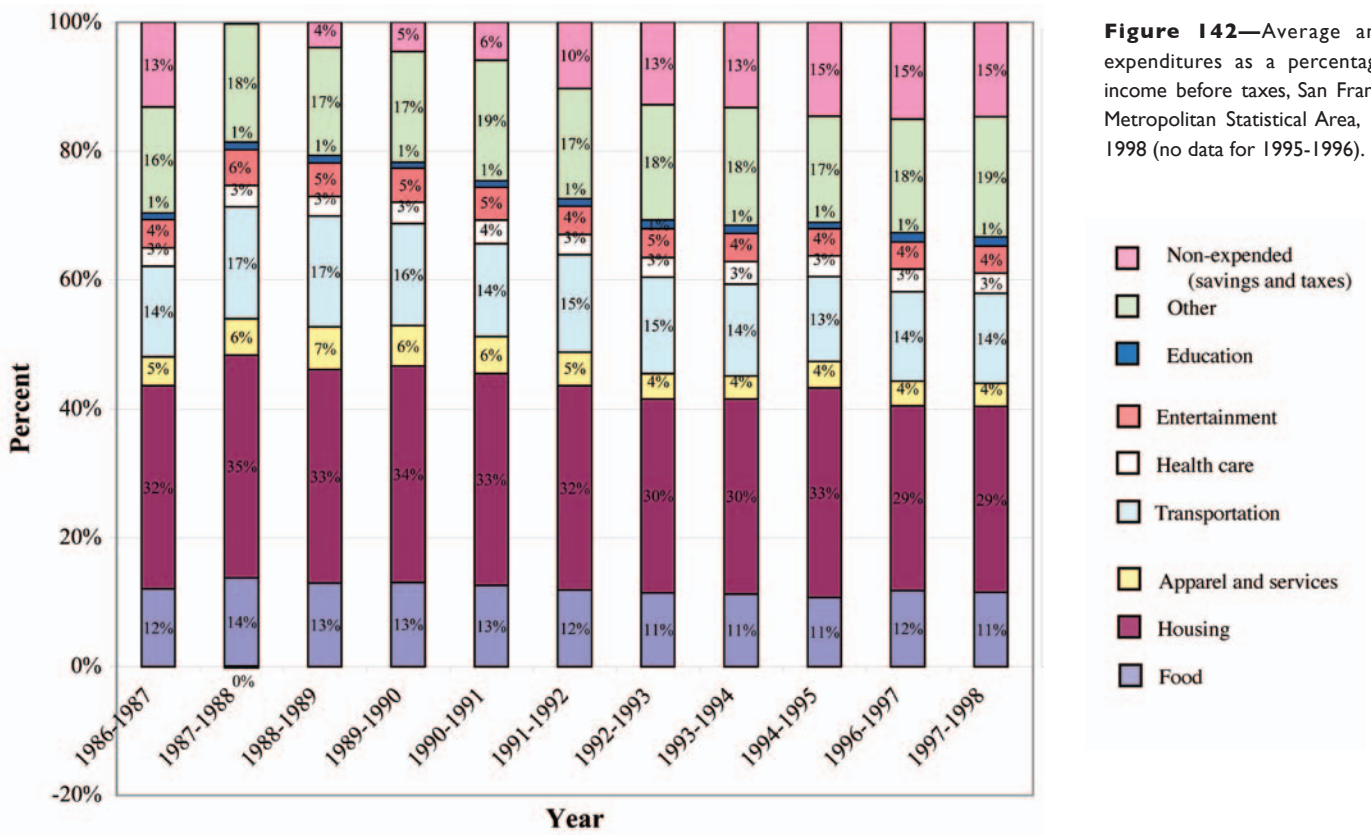

Figure 142—Average annual expenditures as a percentage of income before taxes, San Francisco Metropolitan Statistical Area, 1986-1998 (no data for 1995-1996).

Source: Bureau of Labor Statistics 2000

ing, tobacco products and smoking supplies, miscellaneous, cash contributions, and personal insurance and pensions.) In keeping with other metropolitan areas, San Francisco Bay Area residents spent a little more than their income in the atypical years of 1987 and 1988.

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Alameda County

- Alameda County is the second most populous county in the San Francisco Bay Area after Santa Clara County.
- The county is one of the most ethnically and racially diverse in the Bay Area.
- Along with Contra Costa and Santa Clara Counties, Alameda County is projected to have the greatest growth in population, households, and jobs.

History

According to Willard's (1988) historical account, human habitation in the Alameda County area began 6,000 years ago (*fig. 143*). The tribal people that inhabited the area were called Costeños (coast people) by the Spanish, although they preferred Ohlone.

The recorded history of Alameda County begins with the Spanish expedition led by Gaspar de Portolá in 1769. When the expedition reached the Bay, Portolá sent his scout, Sergeant Francisco Ortega, to find an inland route to Point Reyes (Marin County). Ortega found no inland route, but the Spanish sent five more expeditions through Alameda and Contra Costa Counties over the next 7 years. Mission San Jose was founded in 1797 in Alameda County and it became a large and productive mission operating a gristmill, a tannery, a soap factory, and a weaving operation.

After mission secularization, the area was divided into land grants. The only Spanish land grant entirely within Alameda County was the 45,000-acre Rancho San Antonio; however, there were many other Mexican ranchos of varied acreages. Hides and tallow were the major products of the ranchos.

When gold was found near Sacramento in 1848, people flocked to California. A major route to the mines was established from Mission San Jose through the Altamont Pass to the Sierra foothills. After excursions to the mines, many settlers returned to the east side of the San Francisco Bay.

Figure 143—Alameda County (shaded area) is east of San Francisco.

Source: 50 Individual States—Counties 1995

At the end of the U.S.-Mexican War in 1849, the California legislature ruled that any settler could appropriate 160 acres of "public land" by fencing, improving, and living on it. The U.S. government set up a land commission to confirm preexisting land titles, but the burden of proof was upon the original grantees. The settlement of disputes became a long process and most Mexican landowners lost their property. Alameda County was formed in 1853 from portions of Santa Clara and Contra Costa Counties.

The coming of the transcontinental railroad changed Alameda County. Hamlets along the way grew into towns, and Oakland, the terminus, became a city. The railroads brought a well-educated population of Blacks to Oakland, one of the first cities in California to admit Blacks to public schools. With the completion of the transcontinental railroad, many Chinese returned to settle in the East Bay.

In 1906, the earthquake caused thousands to flee to the East Bay. Oakland, Berkeley, and Alameda bustled in the aftermath, with real estate promoters lauding the East Bay as a safe place to live.

Alameda County has a long history of intellectualism with the establishment of the UC Berkeley campus in 1860. Many writers, architects, and artists congregated

there. Berkeley was the site of scientific research that led to the development of the atomic bomb.

Industrialization of the county came with World War I. The demand for vessels turned Oakland into a shipbuilding center. By 1916 the use of the automobile was so widespread that Chevrolet opened an assembly plant in Oakland. Other companies followed, earning the city the label "Detroit of the West." Industrial development grew in the county, particularly in Oakland and Berkeley. During the 1920s Alameda County was one of the fastest growing areas in the country.

Before World War II, East Bay cities were predominantly White working-class and middle-class communities. Of the foreign residents, the largest ethnic group was Italian followed by the British, Canadians, Germans, Scandinavians, Portuguese, and Asians (Johnson 1994).

The economic stimulus of World War II encouraged the diversification of industry (Johnson 1994). Processing and packing food for the armed forces was second only to shipbuilding in economic importance. It was at this time that the Alameda Naval Air Station, the Oakland Naval Supply Depot, the Pacific Naval Air Bases Command, the Army Quartermaster Corps, the War Shipping Administration, and the Coast Guard were established in the county.

Political activism at University of California, Berkeley began in the 1950s with concerns about communist infiltration in the country. In the 1960s national issues such as the Civil Rights Movement and the Vietnam War were magnified in the East Bay. The Free Speech Movement began on the Berkeley campus when the university enforced an old rule disallowing student gatherings.

In the 1970s and 1980s, Alameda County continued to grow as transportation systems improved. The $20 million international airport that opened in Oakland in 1962 was followed by improvements in the mass transit system when BART became the nation's first fully computerized light rail system in 1972. The Port of Oakland made improvements to become the second-largest port in the United States. According to ABAG, Alameda County experienced an economic transition in the 1970s and 1980s whereby the county became more economically diversified (Association of Bay Area Governments 1999). In the southern part of the county, high technology industries grew, particularly computer hardware manufacturing. The eastern part of the county saw growth in office employment, communications, and computer software industries. The northern portion of the county transitioned from manufacturing to office employment, government centers, transportation, and biotechnology.

Alameda County Today

Sociodemographic Characteristics

Projected Population—Alameda County is home to "the other city on the Bay": Oakland. In addition to Oakland, the county has a number of established cities that have led to the county's standing as the second largest in the Bay Area after Santa Clara County. Alameda County is unique because it has four cities larger than 100,000: Oakland, Fremont, Hayward, and Berkeley.

DOF and ABAG calculated population projections for Alameda County (*table 101*). An increasing population is expected through the forecast period, but the rate of growth predicted by ABAG is slower than that predicted by DOF. DOF's projections are higher than ABAG's throughout the forecast period by as much as 121,439 people. This is explained by the use of different assumptions in calculating projections.

Table 101—*Population projections, Alameda County, 1990-2040.*

Source	1990	1995	2000	2005	2010	2015	2020	2030	2040
U.S. Census	1,304,346[1]	-	1,443,741	-	-	-	-	-	-
DOF	1,284,825[2]	-	1,470,155	-	1,654,485	-	1,793,139	1,938,547	2,069,530
ABAG	1,276,702	1,345,900	1,462,700	1,573,200	1,615,900	1,641,700	1,671,700	-	-

Source: United States Census Bureau 1990a and 2000, State of California Department of Finance 1998, Association of Bay Area Governments 1999

[1] Data from April 1.

[2] Data from July 1.

Ethnic and Racial Diversity—The economic stimulus provided by the two world wars and the resulting in-migration of workers has made Oakland one of the most diverse cities in the United States. For example, every census tract in Oakland is of mixed ethnicity, including the more affluent hill areas (Les 1998).

In 1990, Alameda County's population was predominantly White *(table 102)*. (These are the 1990 revised U.S. Census numbers.) By 2000, Whites were no longer the majority in the county although they were still the largest ethnic group. What is unique about Alameda County in both 1990 and 2000 is the diversity of the population.

Table 102—*1990 and 2000 population, Alameda County.*

	1990	2000
	---------- Percent ----------	
Non-Hispanic White	52.1	40.9
Hispanic all races	13.9	19.0
Non-Hispanic Black	17.1	14.6
Non-Hispanic Asian	14.2	20.9
Non-Hispanic American Indian	0.5	0.4
Non-Hispanic other	0.2	0.3
Non-Hispanic two or more races	N/A	3.9

Source: United States Census Bureau 1990a, 2000

In 1990, 18 percent of Alameda County's population was foreign-born. Almost one-quarter (24.8 percent) of residents age 5 and older spoke a language other than English at home. Of those, most (63.9 percent) spoke a language other than English or Spanish, 36.1 percent spoke Spanish (United States Census Bureau 1990b).

The majority of LEP students in Alameda County public schools speak Spanish or Cantonese—mirroring languages spoken at home (*fig. 144*). In 1997-98, 19 percent of Alameda County's public school students were LEP.

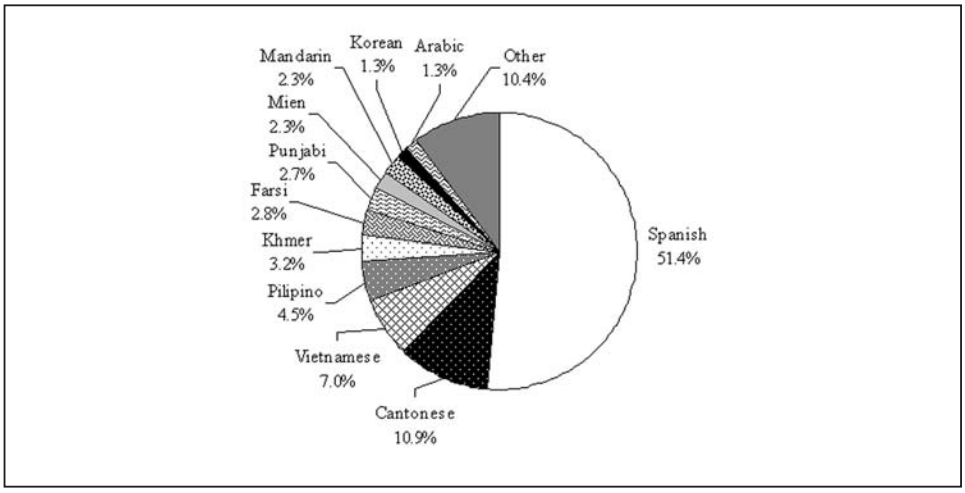
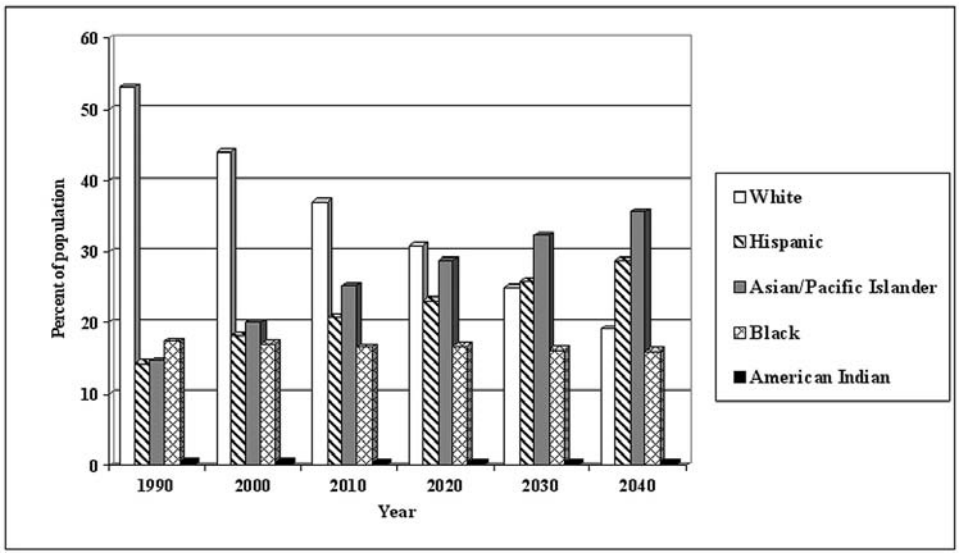


Figure 144—Limited-English-Proficient (LEP) students in Alameda County public school districts, by language, 1997-1998.

Source: California Department of Education 1998b

Projected Ethnic and Racial Diversity—As Alameda County's population increases, racial and ethnic diversity are projected to increase through 2040. Asians and Hispanics are expected to increase as a percentage of the total population, while the populations of Whites, Blacks, and American Indians are expected to decrease in proportions (*fig. 145*).

Figure 145—Racial and ethnic diversity trends for Alameda County.



Source: State of California Department of Finance 1998

Whites show the largest percent of expected decrease in proportion of population over the forecast period, while decreases among Blacks and American Indians are marginal (*table 103*). Both Asians and Hispanics show increases in their proportions of the total population.

Table 103—*Percent race/ethnicity and percent change in Alameda County, 1990-2040.*

Racial/ethnic group	1990	2000	2010	2020	2030	2040	Cumulative percent change
	Year						
White	53.15 -	44.09 (-9.07)	36.99 (-7.10)	30.92 (-6.06)	25.04 (-5.88)	19.16 (-5.88)	-34.00
Hispanic	14.29 -	18.22 (3.94)	20.76 (2.54)	23.19 (2.43)	25.91 (2.72)	28.84 (2.93)	14.55
Asian/Pacific Islander	14.60 -	20.09 (5.50)	25.24 (5.15)	28.80 (3.55)	32.36 (3.56)	35.65 (3.30)	21.06
Black	17.43 -	17.14 (-0.30)	16.58 (-0.56)	16.68 (0.10)	16.32 (-0.36)	16.01 (-0.31)	-1.42
American Indian	0.53 -	0.46 (-0.07)	0.43 (-0.03)	0.41 (-0.02)	0.38 (-0.03)	0.34 (-0.04)	-0.19

Source: State of California Department of Finance 1998

The overall median age for the county is expected to increase, from 32 to 38 years. Projected median age for females is slightly higher than for males within all ethnic groups except Hispanics (*fig. 146*). The steepest projected increases in median age are for the American Indian (from 30 to 48.5 years) and White (from 35.5 to 52) populations. Much smaller increases are projected for Asians (from 30 to 37.5 years), Blacks (from 29.5 to 36 years), and Hispanics (from 25.5 to 29 years).

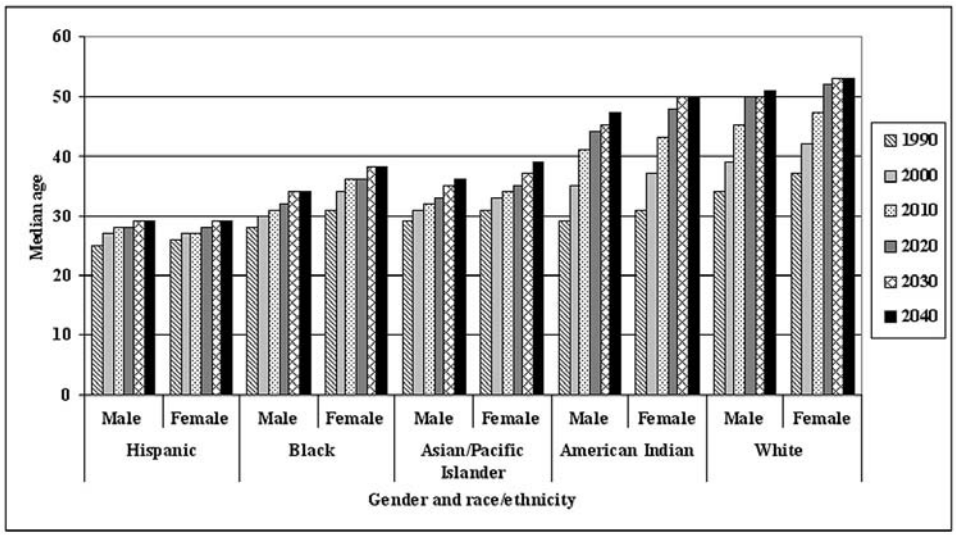


Figure 146—Median age by gender and race/ethnicity, Alameda County, 1990-2040.

Source: State of California Department of Finance 1998

Development and Real Estate

The majority of construction in Alameda County from 1987 to 1998 occurred in incorporated areas (*fig. 147*). Both residential and nonresidential construction in incorporated areas declined in the late 1980s and early 1990s, only recovering around 1994.

In 1990, Alameda County had 479,518 households and 504,109 housing units. The vast majority (95.1 percent) of housing units were occupied; a few (4.9 percent)

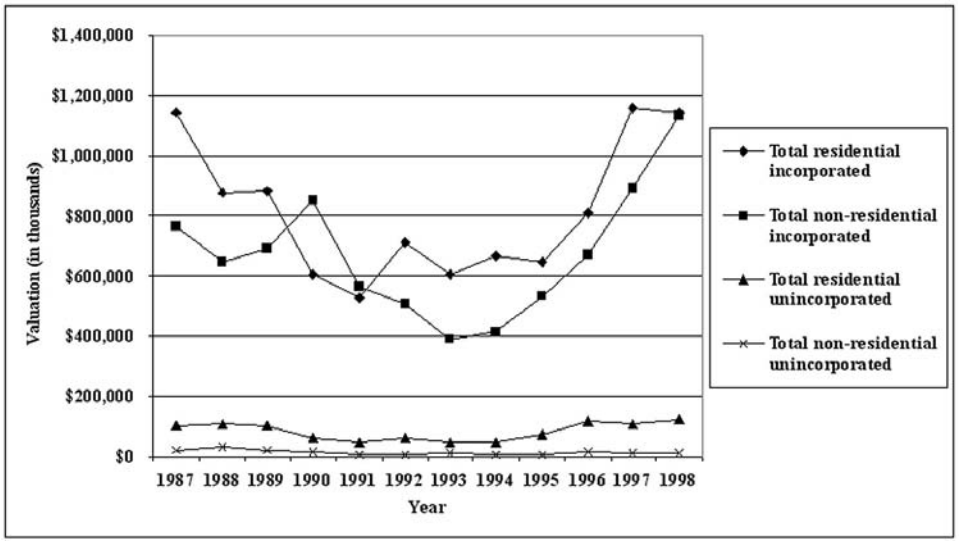


Figure 147—Building trends, Alameda County, in 1998 dollars, 1987-1998.

Source: Construction Industry Research Board 1988-1999

were vacant (United States Census Bureau 1990a). Of the occupied housing units, a majority (53.3 percent) were owner-occupied, though 46.7 percent were renter-occupied (United States Census Bureau 1990a). The median value of owner-occupied housing units in 1990 was $227,200, and the median rent was $626 per month.

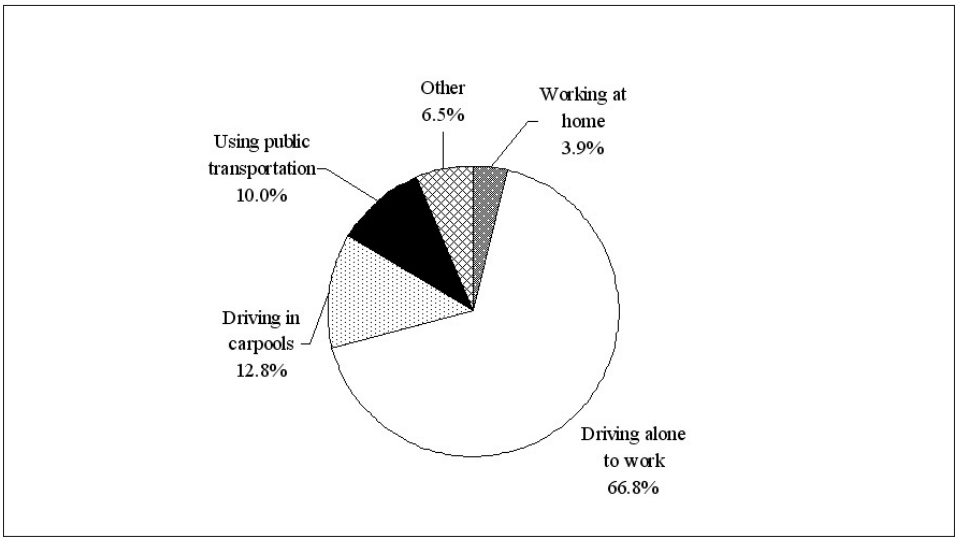
Quality of Life Indicators

Transportation, Commuting, and Employment—In 1990, there were 633,191 workers age 16 and older in Alameda County, and an average of 1.7 vehicles per household. Almost 30 percent of Alameda County residents worked outside the county. The majority (66.8 percent) of workers drove to work alone, although some carpooled to work (12.8 percent) or used public transportation (10 percent) (*fig. 148*). The average travel time to work was 25.8 minutes, which was slightly less than the average commute of 26.5 minutes for seven of the Bay Area counties.

Base closures in the county have affected local communities. Bases within the county scheduled to close by the end of the 1990s and early in the next century include five Navy installations, and one Army base. Two U.S. Department of Energy national laboratories, and many local businesses supplying goods and services to the bases and labs will also be affected. With Federal economic adjustment and diversification assistance, the base closure situation in the county has not been as dire as predicted (Tuohy 1997).

Land in farms, the average size of farms, the number of full-time farms, and the market value of agricultural products sold decreased between 1992 and 1997 (United States Department of Agriculture 1997). Alameda County is an urbanized county with less than 200 full-time farms (United States Department of Agriculture 1997).

Figure 148—Commuting patterns, workers 16 and older, Alameda County, 1990.



Source: United States Census Bureau 1990b

Alameda County is second only to Santa Clara County in regional job growth expected between 2000 and 2020 (Association of Bay Area Governments 1999). Most of this growth will occur in the Tri-Valley area of Dublin, Livermore, and Pleasanton followed by the Tri-City area of Fremont, Union City, and Newark. Given the projected job growth in the county, housing production in Alameda County is a major concern. Western Alameda County was expected to be built-out by 2000.

Education—Alameda County serves the largest number of students in its elementary schools (*table 104*). The county also has more elementary schools (210) than middle and high schools (53 and 31, respectively). Average enrollment per school is greatest at the high school level, which is the pattern across the assessment

area and all counties. Alameda County serves 4.1 percent of the assessment area's school enrollments. County schools have the 7th highest enrollment overall and they are 14th highest in average enrollment per school. Students in 2nd through 11th grade were tested using the Stanford 9 at 285 of the county schools. Alameda County's ranking in academic performance for 1999 was a mean of 4.58 out of 10 (based on the similarity index, www.cde.ca.gov), indicating a slightly lower than average performance than similar schools. Although 25.9 and 28 percent of schools in the county performed well below or below average compared to similar schools, 10.5 percent were well above average and 14.3 percent were above average.

Table 104—*Enrollment and number of schools, Alameda County, 1998-1999.*

Type of school	Total enrollment	Percent of total enrollment	Number of schools	Average enrollment/school
Elementary	110,820	52.9	210	528
Middle/Junior High	43,137	20.6	53	814
High School	55,635	26.5	31	1,795
Total	209,592	100.0	294	-

Source: California Department of Education 1998a

Health Care—The largest number of health care establishments in the county deliver ambulatory health care services, followed by social assistance, nursing and residential care, and hospital care (*fig. 149*). The county has 16 hospitals, representing 4.0 percent of the assessment area's total hospitals (ahd.tool.net/list.php3/mstate=ca). More than half (62.5 percent) of the hospitals are nonprofit, with the balance classified as county (18.8 percent), or for-profit (18.8 percent) facilities. For those hospitals with reported data (13 hospitals), a total of 3,185 beds and 804,338 total patient days were recorded in 1999. The county ranked sixth in number of hospitals, comparable to its seventh-place ranking in population.

Recreation and Tourism—Among the assessment area's 26 counties, Alameda ranked sixth in the 1997 economic census in accommodations and food services, and fifth in arts, entertainment, and recreation (United States Census Bureau 1999b, 1999c). A total of 2,773 accommodation and food-services establishments, with $1,573,190,000 in receipts, was reported. Arts, entertainment, and recreation services involved 287 establishments, with receipts totaling $495,720,000.

The county offers some notable opportunities for recreation and tourism including the Bethany Reservoir State Recreation Area, where visitors can fish,

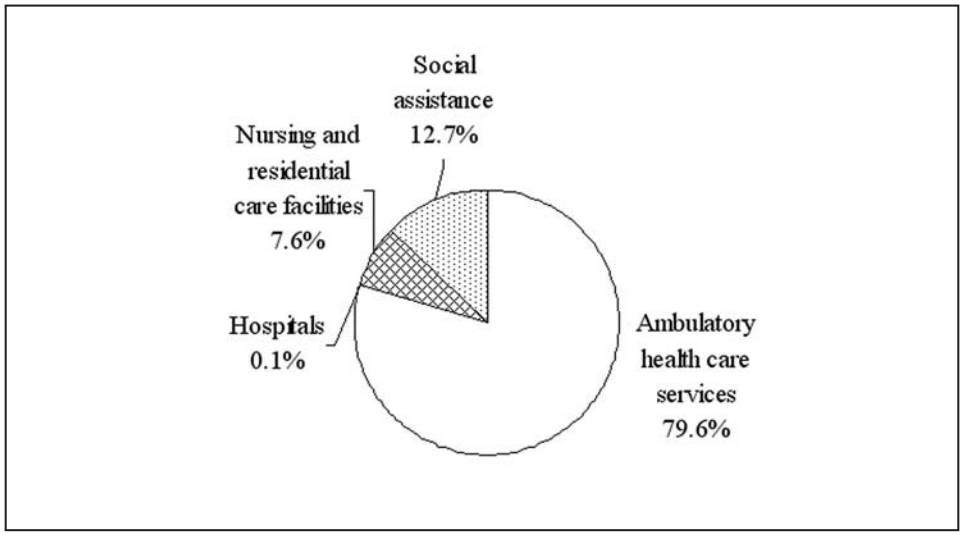


Figure 149—Health care and social assistance establishments, Alameda County, 1997.

Source: United States Census Bureau 1999a

windsurf, or bike along the California Aqueduct; and the Carnegie State Vehicular Recreation Area, a 1,500-acre off-road area with hill-type riding and an obstacle course (cal-parks.ca.gov). The Anthony Chabot Regional Park, outside Oakland, has a 315-acre lake and a 31-mile trail running the length of the park. There are a number of museums in Berkeley, including the University's art museum (www.ci.berkeley.ca.us). The Sulphur Creek Nature Center, in the city of Hayward, is of interest to those wanting to view animals in their natural habitats (www.ci.hayward.ca.us). The Leland Stanford Mansion State Historic Park is of historical interest in this region.

Environmental Indicators

Water Quality—Alameda County crosses six watersheds: the San Joaquin Delta, Panoche-San Luis Reservoir, Suisun Bay, San Pablo Bay, Coyote, and San Francisco Bay (www.epa.gov/surf3/surf98/county.html). (Watersheds frequently cross county boundaries. Therefore, some counties may include watersheds that are also located in other counties.) The Suisun Bay watershed was assigned a "6" by the EPA, indicating "more serious water quality problems and high vulnerability to pollution stressors." (According to the EPA's Index of Watershed Indicators procedures, a pollution stressor includes aquatic/wetland species at risk, toxic loads above limits, urban runoff potential, agricultural runoff potential, population change, hydrologic modification, estuarine pollution susceptibility, and atmospheric deposition.) The San Joaquin Delta and Coyote watersheds were assigned a "5," indicating "more serious water quality problems but low vulnerability to pollution stressors." The San Pablo Bay was assigned a "4," indicating "less serious water quality problems but high vulnerability to pollution stressors." The San Francisco Bay was assigned a "2," indicating a "better water quality but high vulnerability to pollution stressors." Data are not available for the Panoche-San Luis Reservoir.

Air Quality—Alameda County has the seventh largest population of the 26 counties, paired with a similar standing in emissions in various categories (*table 105*). Alameda County is ninth highest in total organic gases emissions, eighth in reactive organic gases emissions, and sixth in carbon monoxide emissions. The majority of emissions are projected for marginal decreases dependent upon emission type. Particulates are expected to increase slightly, primarily from area-wide sources, according to the California Air Resources Board (1999).

Table 105—*1996 estimated and 2010 forecasted annual average emissions, Alameda County (cells do not add to column totals due to rounding error).*

Year	Emission category	Emission type[1]						
		TOG	ROG	CO	NOx	SOx	PM	PM10
1996	Stationary	140	28	2	7	2	6	4
	Area-Wide	28	20	49	4	0	42	23
	Mobile	65	58	580	94	3	4	3
	Natural	0	0	0	0	-	0	0
	Total	240	110	630	100	5	52	30
2010	Stationary	150	28	2	6	2	8	5
	Area-Wide	26	17	36	4	0	45	24
	Mobile	27	24	320	60	7	3	3
	Natural	-	-	0	-	-	-	-
	Total	200	68	360	69	9	56	31

Source: California Air Resources Board 1999

[1] TOG: total organic gases; ROG: reactive organic gases; CO: carbon monoxide; NOx: nitrogen oxides; SOx: sulfur oxides; PM: particulate matter; PM10: particulate matter less than or equal to 10 microns (*appendix D*).

Implications

The economy of Alameda County is diverse, and the fact that the county is home to a prestigious university (University of California, Berkeley) helps fuel innovation in the county's high-tech industry. Furthermore, the expansion of the city's airport and port mean more jobs through the forecast period. The Port of Oakland is now only second to Long Beach on the West Coast in terms of revenue tonnage passing through the port (Les 1998).

The highest growth in jobs and housing is projected for the inland area of Dublin-Livermore-Pleasanton. Along with Contra Costa and Solano Counties, Alameda County is an area of potential growth in affordable housing. However, given the projected growth in jobs, housing production is projected to fall short and is a critical concern in the county.

One of the unique attributes of Alameda County is the extent of its ethnic diversity. Alameda County is one of the most diverse counties in the Bay Area. This diversity is mirrored in the languages spoken by LEP students and the projected changes in race/ethnicity over the forecast period.

Because western Alameda County is mostly built out, urban growth has moved south and east. The high cost of housing in the city of San Francisco and many Bay Area cities has led people to move further east in a search for affordable housing. This has implications for the preservation of open space in the eastern part of the county and for air quality, which worsens as more people commute long distances.

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Contra Costa County

- Contra Costa is one of the three fastest growing counties in the Bay Area.
- The median price of housing is half the average ABAG price, making the county an attractive location for homebuyers.
- Office-related developments have spilled out of San Francisco into this county, creating additional employment opportunities.
- Two of its four watersheds have serious water quality problems.

History

The first inhabitants of Contra Costa (*fig. 150*) were three groups of American Indians: Yokuts in the area south of Mount Diablo, Saklan in Lafayette and Walnut Creek, and Costanoan along the shores of the bay (Tatam and others 1993). The first Europeans arrived in 1769 with Don Gaspar de Portolá's expedition. In 1772, a second expedition led by Captain Pedro Fages with Father Juan Crespi set out from Monterey specifically to explore the Contra Costa area. In 1821, Mexico achieved independence from Spain, and the territory of California was quickly settled by granting large tracts of land to retired army officers and others who agreed to settle on the land, build a home, and raise cattle or plant crops. Mexican families built adobe homes and hired local Indians as laborers. Cattle and sheep provided most of the income of the ranchos, through the sale of hides and tallow. During the 1850s and 1860s rancheros sold parcels of their land to newly arrived

settlers, many who were disappointed gold seekers. The newcomers started wheat farms, which gradually replaced the cattle ranches of Contra Costa. By the early 1900s, orchards and vineyards watered by irrigation canals replaced wheat farming (Tatam and others 1993).

The northern portion of the county developed first and became a shipping center for California wheat and other grains to ports all over the world. The Carquinez Strait region was chosen as a shipping point because it was easy to bring grain there from the fields of Sacramento and the San Joaquin Valley via river barges or trains (Rego 1997).

The first city founded in the county was Martinez, in 1849 (Rego 1997, Tatam and others 1993). In the 1870s Martinez was the central location for salmon fishing. Two salmon canneries were started in Martinez in 1882. Although the fisherman were primarily Italian immigrants, the cannery workers came from many different ethnic backgrounds. Although Martinez began as a fishing town, it soon became the manufacturing center of the county (Emanuels 1986).

Industrial operations began with the discovery of coal in the Mount Diablo foothills in 1855, which spawned a $20 million industry enduring for the next 42

Figure 150—Contra Costa County is east of San Francisco (shaded area).

Source: 50 Individual States—Counties 1995

years (Emanuels 1986). Towns sprouted when coal mining was at its peak and disappeared when the mining ended in 1902. Coal mining was gradually replaced by other industrial operations along the Carquinez Strait. For example, in 1895, oil companies, including Royal Dutch Shell, began to settle in the Martinez area along with the Mountain Copper Company and their smelter operations (Rego 1997; Tatam and others 1993). Early industries in other towns along the Carquinez Strait included lumber, pottery, distilleries, brickyards, paper mills, canners, sugar refineries, and shipyards (Tatam and others 1993).

The Oakland, Antioch & Eastern Railroad was Contra Costa's first electric railway in 1912, an ancestor of BART (Tatam and others 1993). However, the popularity of the automobile meant the railway consistently lost money until it finally closed in 1941. The BART system today follows the original route of the electric trains. Before 1930 trains going between Solano and Contra Costa Counties had to be carried across the Carquinez Strait on ferryboats. To solve the bottleneck, a bridge was built between Martinez and Benicia, the longest double-track span in the west at its completion in 1930 (Rego 1997).

The southern and eastern portions of the county were important farming regions. In particular, the San Ramon Valley was known as a fruit-producing region. Pears, grapes, walnuts, almonds, peaches, and apricots were grown. San Ramon became known for its Bartlett pears, which were shipped all over the world (Tatam and others 1993). Other products grown in the county in the early part of the 20th century include olives, potatoes, hay, barley, and cereals.

Contra Costa County Today

Contra Costa County is one of the Bay Area's fastest growing counties. Office-related employment has moved to the county from San Francisco. ABAG expects that the fastest growing areas through 2020 will be San Ramon, Concord, and Richmond (Association of Bay Area Governments 1999). The growth will be in manufacturing, wholesale trade, retail, and service jobs. One of the major reasons for growth in this county is that there is land available for development at prices that permit housing to be less expensive. The median sales price of homes in the eastern portion of the county is half the median price for the region as a whole (Association of Bay Area Governments 1997).

Sociodemographic Characteristics

Projected Population—DOF and ABAG calculated population projections for Contra Costa County *(table 106)*. An increasing population is expected through the forecast period. Initially, DOF and ABAG projections match closely, varying by approximately 4,000 persons. As the projections move farther into the future, the gap between DOF and ABAG widens to 64,275. Even so, it could be said that DOF and ABAG are in general agreement about the amount and rate of growth that will occur in Contra Costa County through the forecast period.

Table 106—*Population projections, Contra Costa County, 1990-2040.*

Source	1990	1995	2000	2005	2010	2015	2020	2030	2040
U.S. Census	803,732[1]	-	948,816	-	-	-	-	-	-
DOF	807,608[2]	-	931,946	-	1,025,857	-	1,104,725	1,189,501	1,264,400
ABAG	803,732	865,300	941,900	1,021,500	1,076,800	1,124,900	1,169,000	-	-

Source: United States Census Bureau 1990a and 2000, State of California Department of Finance 1998, Association of Bay Area Governments 1999

[1] Data from April 1.

[2] Data from July 1.

Ethnic and Racial Diversity—In 1990, 70 percent of Contra Costa's population was White. By 2000, Whites were still the majority, but were 57.9 percent of the population (*table 107*). The next largest ethnic groups in both 1990 and 2000 were

Hispanics, Asians, and Blacks, consecutively. American Indians remained a small proportion of the population, increasing only slightly as a proportion of the population in 2000.

Table 107—*1990 and 2000 population, Contra Costa County.*

	1990	2000
	Percent	
Non-Hispanic White	70.0	57.9
Hispanic all races	11.4	17.7
Non-Hispanic Black	9.1	9.2
Non-Hispanic Asian	9.2	11.2
Non-Hispanic American Indian	0.6	0.4
Non-Hispanic other	0.2	0.3
Non-Hispanic two or more races	N/A	3.4

Source: United States Census Bureau 1990a, 2000

In 1990, 13.3 percent of Contra Costa County's population was foreign-born. Eighteen percent of residents age 5 and older spoke a language other than English at home. Of those some (41.2 percent) spoke Spanish, though a majority (58.8 percent) spoke a language other than English or Spanish (United States Census Bureau 1990b).

Linguistic diversity is also reflected within the schools in the region. The majority of LEP students in Contra Costa County public schools speak Spanish—or any one of a number of Asian languages—mirroring the languages spoken at home (*fig. 151*). In 1997-98, 10.5 percent of Contra Costa County's public school students were LEP.

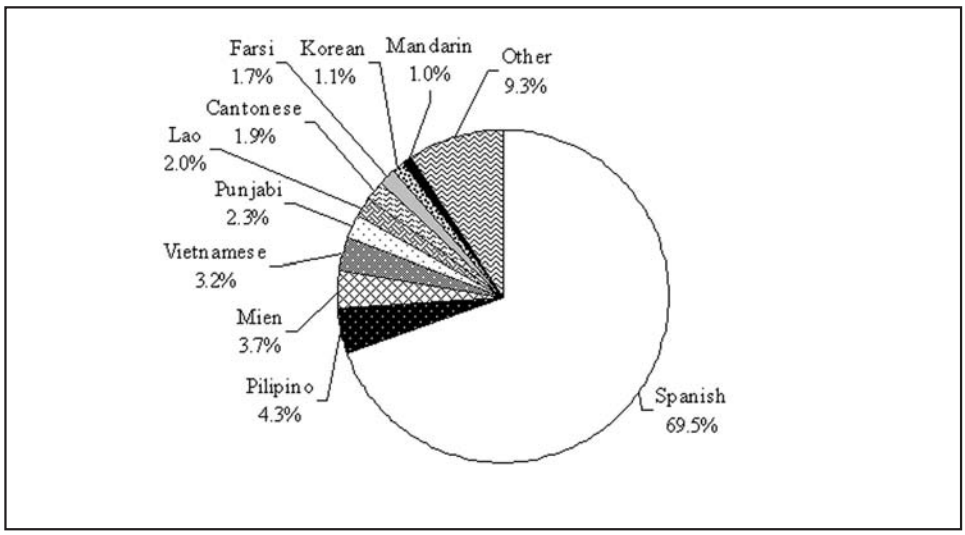


Figure 151—Limited-English-Proficient (LEP) students in Contra Costa County public school districts, by language, 1997-1998.

Source: California Department of Education 1998b

Projected Ethnic and Racial Diversity—As Contra Costa's population increases, racial and ethnic diversity are projected to increase through 2040. Hispanics, Asians, and Blacks are all expected to increase as a percentage of the total population, while Whites are expected to decrease (*fig. 152*). American Indians represent the smallest percentage, and Whites the largest of Contra Costa's proportion of the population through 2040.

The White proportion of the county population is expected to decrease by almost 23 percentage points over the forecast period, while the Hispanic, Asian, and Black populations are expected to increase their proportions by approximately 14, 9, and 1 percent, respectively (*table 108*).

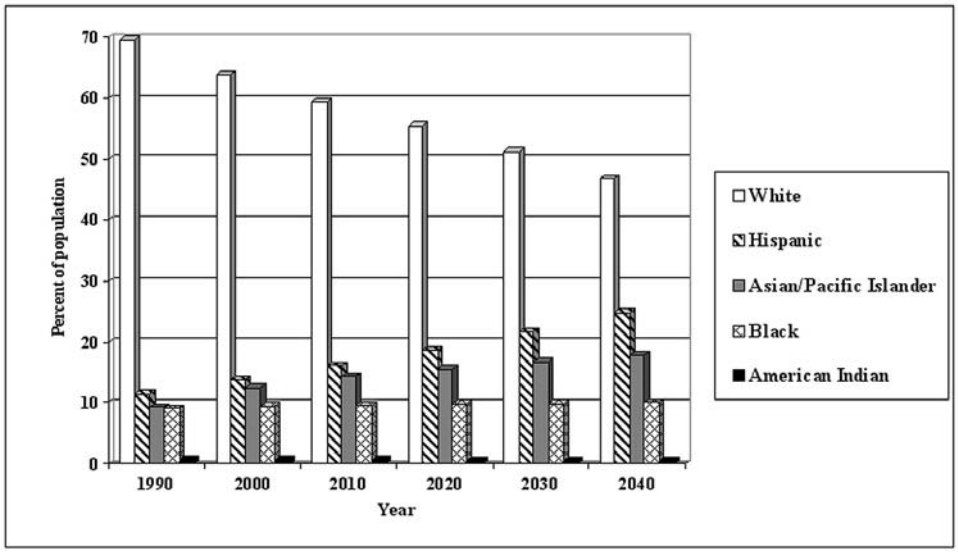


Figure 152—Racial and ethnic diversity trends for Contra Costa County.

Source: State of California Department of Finance 1998

Table 108—*Percent race/ethnicity and percent change in Contra Costa County, 1990-2040.*

Racial/ethnic group	1990	2000	2010	2020	2030	2040	Cumulative percent change
	---------- Year ----------						
White	69.69 -	63.91 (-5.79)	59.52 (-4.39)	55.55 (-3.97)	51.23 (-4.32)	46.88 (-4.35)	-22.82
Hispanic	11.43 -	13.83 (2.40)	16.10 (2.27)	18.61 (2.51)	21.60 (2.99)	24.81 (3.21)	13.38
Asian/Pacific Islander	9.26 -	12.40 (3.14)	14.33 (1.93)	15.46 (1.13)	16.75 (1.30)	17.83 (1.08)	8.57
Black	9.07 -	9.34 (0.27)	9.54 (0.20)	9.88 (0.35)	9.96 (0.08)	10.07 (0.11)	1.00
American Indian	0.55 -	0.53 (-0.02)	0.52 (-0.02)	0.49 (-0.02)	0.46 (-0.04)	0.41 (-0.04)	-0.14

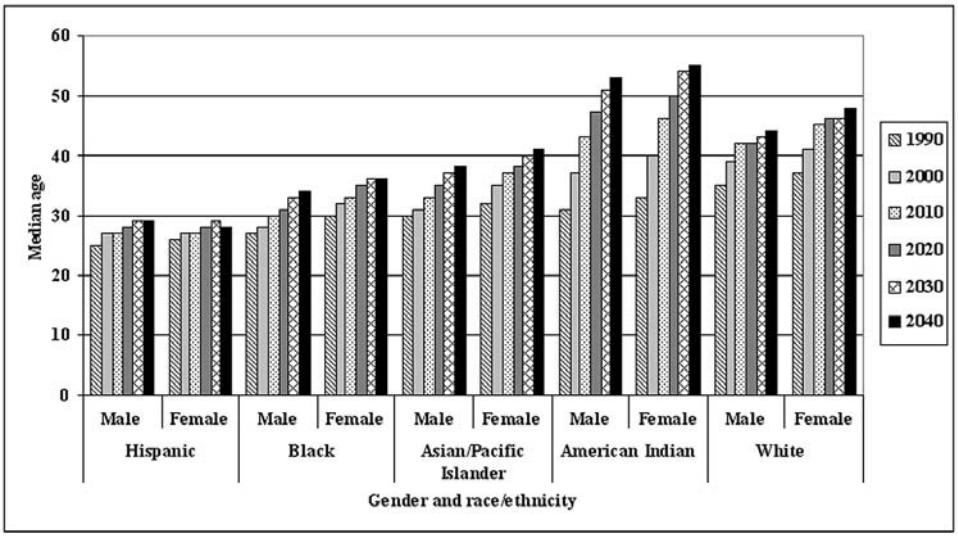
Source: State of California Department of Finance 1998

Paired with the projected changes in ethnic and racial diversity in Contra Costa County, the populations' median age is expected to change. The median age for American Indians in the county shows the greatest increase through the forecast period, increasing from 32 to 54, followed by Whites (36 to 46) and Asians (31 to 39.5). Lesser increases are expected for the Black and Hispanic populations (28.5 to 35 and 25.5 to 28.5, respectively) (*fig. 153*).

Development and Real Estate

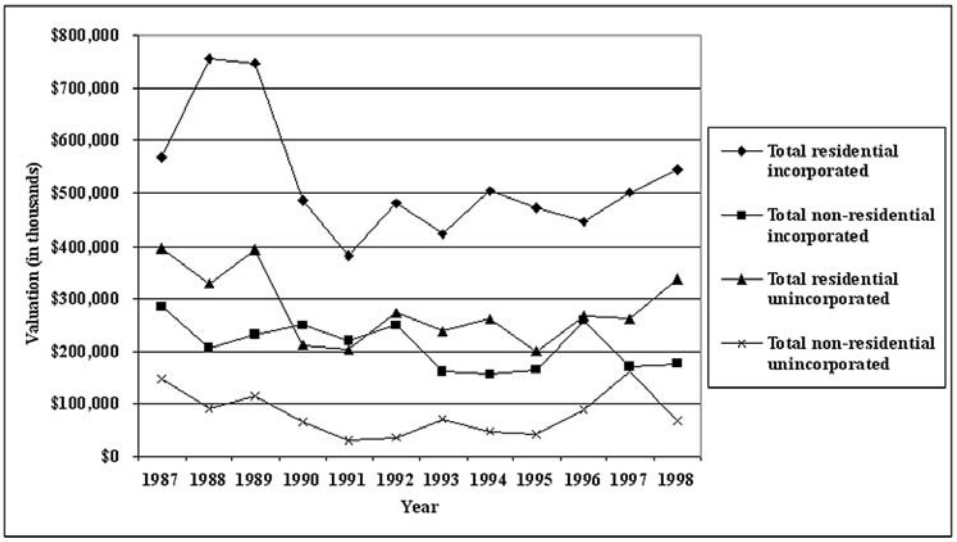
Building trends in Contra Costa County from 1987 to 1998 reveal construction slowed with the recession (*fig. 154*). The majority of construction in the county during this time was residential in incorporated areas followed by residential in unincorporated areas. Non-residential construction represented a smaller share of overall construction.

In 1990, Contra Costa County had 300,288 households and 316,170 housing units. The vast majority (95 percent) of units were occupied; a few (5 percent) were vacant (United States Census Bureau 1990a). Of the occupied housing units,



Source: State of California Department of Finance 1998

Figure 153—Median age by gender and race/ethnicity, Contra Costa County, 1990-2040.



Source: Construction Industry Research Board 1988-1999

Figure 154—Building trends, Contra Costa County, in 1998 dollars, 1987-1998.

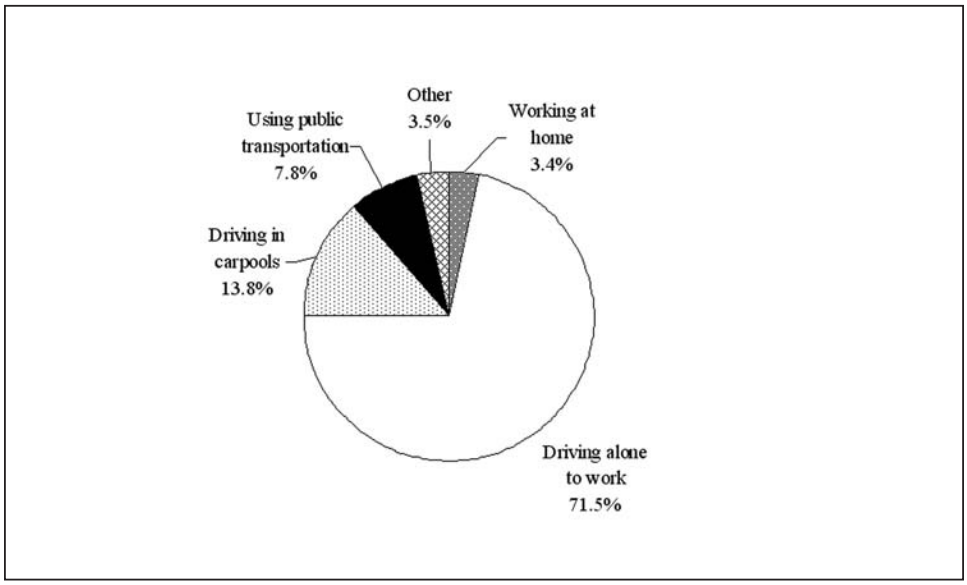
slightly more than two-thirds (67.6 percent) were owner-occupied, though 32.4 percent were renter-occupied (United States Census Bureau 1990a). The median value of owner-occupied housing units in 1990 was $219,400, and the median rent was $675 per month.

Quality of Life Indicators

Transportation, Commuting, and Employment—In 1990, there were 401,173 workers age 16 and older in Contra Costa County, and an average of 1.9 vehicles per household. Forty percent of Contra Costa County residents worked outside the county. The majority (71.5 percent) of workers drove to work alone, although some carpooled to work (13.8 percent) *(fig. 155)*. The average travel time to work was 29.3 minutes, slightly longer than the average commute of 26.5 minutes for seven of the Bay Area counties.

Land in farms and the number of full-time farms decreased in the county between 1992 and 1997. However, the market value of agricultural products sold increased to $67,068,000 during the same period, an increase of 24 percent (United States Department of Agriculture 1997). The top five commodities are vegetables,

Figure 155—Commuting patterns, workers 16 and older, Contra Costa County, 1990.



Source: United States Census Bureau 1990b

fruits and berries, nursery and greenhouse crops, dairy products, and cattle and calves (United States Department of Agriculture 1997).

Education—Contra Costa County serves the largest number of students in its elementary schools, and has more elementary schools (134) than middle or high schools (35 and 26, respectively) (*table 109*). Average enrollment per school is greatest at the high school level, which is the pattern across the assessment area and all counties. Contra Costa County serves slightly fewer than 3 percent of the assessment area's school enrollments. County schools have the 10th highest enrollment overall and they are 9th in highest average enrollment per school. Students in 2nd through 11th grade were tested using the Stanford 9 at 193 of the county schools. Contra Costa County's ranking in academic performance for 1999 was a mean of 4.50 out of 10 (based on the similarity index, www.cde.ca.gov), indicating somewhat lower than average performance than similar schools. Although 35.7 and 20.2 percent of schools in the county performed well below or below average compared to similar schools, 12.5 percent were well above average and 19.6 percent were above average.

Table 109—*Enrollment and number of schools, Contra Costa County, 1998-1999.*

Type of school	Total enrollment	Percent of total enrollment	Number of schools	Average enrollment/school
Elementary	75,267	50.8	134	562
Middle/Junior High	32,922	22.2	35	941
High School	39,852	26.9	26	1,533
Total	148,041	100.0	195	-

Source: California Department of Education 1998a

Health Care—The largest number of health care establishments in the county deliver ambulatory health care services, followed by social assistance, nursing and residential care, and hospital care (*fig. 156*). The county has eight hospitals, representing 2.0 percent of the assessment area's total hospitals (ahd.tool.net/list.php3/mstate=ca). Half (50.5 percent) of the hospitals are for-profit, with the balance classified as nonprofit (37.5 percent), or county (12.5 percent) facilities. For

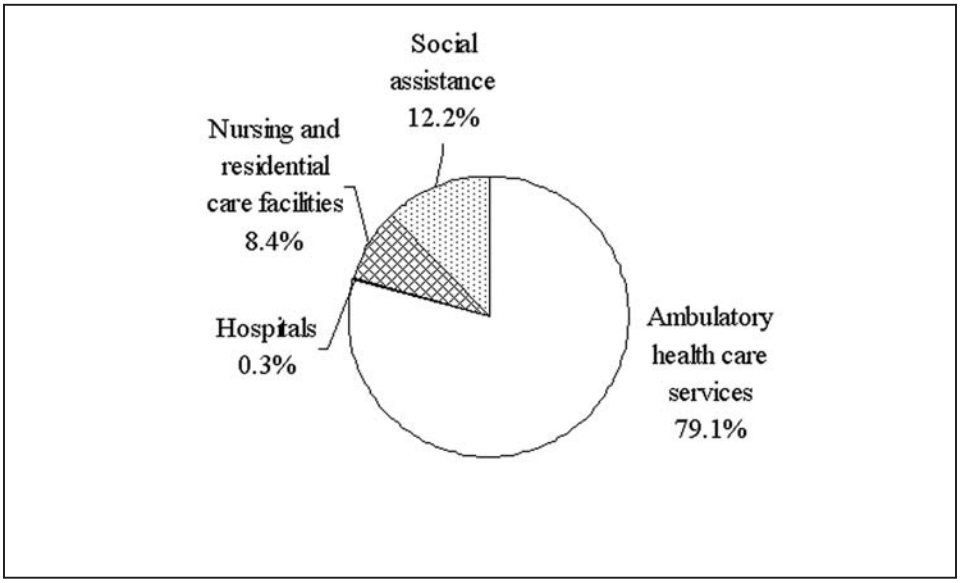


Figure 156—Health care and social assistance establishments, Contra Costa County, 1997.

Source: United States Census Bureau 1999a

those hospitals with reported data (six hospitals), a total of 919 beds and 5,019,412 total patient days were recorded in 1999. The county ranked 13th in number of hospitals, comparable to its 9th place ranking in population.

Recreation and Tourism—Among the assessment area's 26 counties, Contra Costa ranked 10th in the 1997 economic census in accommodations and food services, and 10th in arts, entertainment, and recreation (United States Census Bureau 1999b, 1999c). A total of 1,515 accommodation and food-services establishments, with $902,073,000 in receipts, was reported. Arts, entertainment, and recreation services involved 208 establishments, with receipts totaling $200,938,000.

Contra Costa County offers a few sites of special interest to recreationists and tourists, including the Mt. Diablo State Park, with hiking and camping (Thomas Bros. Maps 1998). Historical interests are reflected in the Shadelands Ranch Historical Museum in Walnut Creek (www.c1.walnut-creek.ca.us). Developed water play is offered at Waterworld USA in Concord (www.sixflags.com).

Environmental Indicators

Water Quality—Contra Costa County crosses four watersheds: the San Joaquin Delta, Suisun Bay, San Pablo Bay, and San Francisco Bay (www.epa.gov/surf3/surf98/county.html). (Watersheds frequently cross county boundaries. Therefore, some counties may include watersheds that are also located in other counties.) The Suisun Bay watershed was assigned a "6" by the EPA, indicating "more serious water quality problems and high vulnerability to pollution stressors." (According to the EPA's Index of Watershed Indicators procedures, a pollution stressor includes aquatic/wetland species at risk, toxic loads above limits, urban runoff potential, agricultural runoff potential, population change, hydrologic modification, estuarine pollution susceptibility, and atmospheric deposition.) The San Joaquin Delta was assigned a "5," indicating "more serious water quality problems but low vulnerability to pollution stressors." San Pablo Bay was assigned a "4," indicating "less serious water quality problems but high vulnerability to pollution stressors." The San Francisco Bay was assigned a "2," indicating a "better water quality but high vulnerability to pollution stressors."

Air Quality—Contra Costa County has the 9th largest population of the 26 counties, paired with the 12th highest emissions in various categories *(table 110).* Contra Costa County is 12th highest in total organic gases emissions, 10th in reactive organic gases emissions, and 9th in carbon monoxide emissions. The majority of emissions are

projected for marginal decreases, dependent upon emission type. Particulates are expected to increase, primarily from area-wide sources, according to the California Air Resources Board (1999).

Table 110—*1996 estimated and 2010 forecasted annual average emissions, Contra Costa County (cells do not add to column totals due to rounding error).*

Year	Emission category	Emission type[1]						
		TOG	ROG	CO	NOx	SOx	PM	PM10
1996	Stationary	130	36	39	61	32	8	6
	Area-Wide	20	14	40	3	0	33	18
	Mobile	49	43	420	61	3	2	2
	Natural	0	0	0	0	-	0	0
	Total	200	93	490	120	36	44	26
2010	Stationary	140	35	45	54	35	9	6
	Area-Wide	18	11	30	3	0	35	19
	Mobile	20	18	220	39	4	2	2
	Natural	-	-	0	-	-	-	-
	Total	170	65	300	96	38	46	27

Source: California Air Resources Board 1999

[1] TOG: total organic gases; ROG: reactive organic gases; CO: carbon monoxide; NOx: Nitrogen Oxides; SOx: sulfur oxides; PM: oarticulate matter; PM10: particulate matter less than or equal to 10 microns (*appendix D*).

Implications

Contra Costa County is one of the fastest growing Bay Area counties. It is one of the counties with open space that can accommodate a growing population and the county is growing residentially and economically. Most of the building in the county is residential, and the county has the third highest housing vacancy rate after San Francisco and Solano Counties. Major office park development in the Tri-Valley communities of San Ramon, Dublin, Pleasanton, and Livermore resulted in the doubling of employment in the area during the 1980s (Association of Bay Area Governments 1997). Although most of the office park development has been in the Tri-Valley area, the boom in the eastern part of the county has been primarily residential. The median sales price of homes in the eastern portion of the county (both new and existing) is approximately half the median price for the region as a whole (Association of Bay Area Governments 1997).

The ability of the county to accommodate more growth has not been without debate. The development of the inland areas of Cowell Ranch and Tassajara Valley have the potential to create whole new towns and spread 11,150 new housing units over 9,000 acres (Mooers 1997). Forecasts indicate that more new households and jobs are expected for East Bay counties like Contra Costa, Alameda, and Solano than for any other subregions (Association of Bay Area Governments 1997). ABAG expects that the Tri-Valley and eastern Contra Costa County areas will continue their strong growth, remaining the East Bay's most intense areas of development through 2020 (Association of Bay Area Governments 1997).

Growth in Contra Costa County has widespread implications for open space and water quality. The loss of open space results in the loss of wildlife habitat and an increased flow of pollutants into the already stressed watersheds in the county. The ability of political leaders to balance growth and environmental preservation will therefore continue to be tested.

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Marin County

- Marin is one of the less populated counties in the Bay Area and retains much of its rural character.
- Although Marin has one of the highest median incomes in the region, many of its residents must commute to jobs in other counties for that income or live in more affordable housing elsewhere if they work in Marin County.
- There is a lack of affordable housing in the county, yet potential for further development.

History

Marin County (*fig. 157*) was first inhabited by Coast Miwok Indians who lived on the Point Reyes Peninsula (Futcher 1981, Teather 1974). They were the first to encounter Sir Francis Drake when he landed on Marin County shores in 1579. When Mexico won independence from Spain in 1821, 21 land grants were issued in Marin County, mostly to army officers and political favorites. Russian settlements on the California coast extended as far south as Mendocino County, and the Spanish military at the presidio in San Francisco wanted to make sure they did not extend any further. When California joined the Union in 1850, most of the Mexican and Indian claims to land were disregarded. Marin ranchers prospered with the Gold Rush, providing beef and dairy products to the boomtowns and to San Francisco. Prospectors from the east who failed to strike it rich bought ranches and businesses in Marin. The easterners were followed by Scottish, Irish, and Portuguese dairymen who started out as milkers, and later bought ranches. In the 1870s, a wave of Swiss-Italian immigrants arrived in Marin, and they also bought ranches (Futcher 1981).

Because of the Civil War and concern that San Francisco would be vulnerable to enemy attack, in 1866 the army purchased 1900 acres of land in the Marin Headlands (Futcher 1981). That land was divided into three smaller posts: Fort Baker (1897), Fort Barry (1904), and Fort Cronkhite (1937). By World War II, the army's installations on the Headlands were obsolete. Proposals to develop the Headlands caused environmentalists to pressure the Federal Government to purchase the land (Futcher 1981). The area was purchased by the Federal Government and in 1972 became the Golden Gate National Recreation Area (GGNRA). The GGNRA covers 34,000 acres of land from Fort Funston on the San Francisco Pacific coast, north across the Golden Gate, through the Headlands, Muir Beach, Muir Woods National Monument, and the Point Reyes National Seashore. Before its establishment as part of the GGNRA, Point Reyes was settled by dairy farmers (Futcher 1981). Some of these dairy farms still operate today with the ranchers leasing back their land from the National Park Service. Most of the ranches in the county are in the northern and western part of the county, which remains rural.

Figure 157—Marin County (shaded area) is north of San Francisco.

Source: 50 Individual States—Counties 1995

Muir Woods National Monument was established when the land was threatened by a private water company that planned to build a reservoir. William Kent purchased the land in 1908 and deeded it to the U.S. government, persuading President Theodore Roosevelt to establish a national monument in Redwood Canyon. One-third of the county's land area is public parkland (Futcher 1981) and another 15 percent is protected watershed or open space preserves (Dawson 2001).

The San Andreas Fault runs through Marin County from Tomales Bay to Bolinas. Although the damage from the 1906 earthquake was greater in San Francisco, the earth moved dramatically in Marin. The entire peninsula moved from 16 to 20 feet northwestward (Futcher 1981). It still moves between one-half and two inches a year (Futcher 1981). The population of south Marin County towns grew after the earthquake as residents moved away from the city.

The county of Marin is connected to San Francisco by the more-than-1-mile-long Golden Gate Bridge. The bridge was begun in 1933 and opened to traffic in 1937 (Mason and Park 1975). Although railroads and ferries have connected Marin and San Francisco since the 1880s, it was the construction of the bridge that made Marin accessible (Futcher 1981). When the transcontinental railroad

was completed in 1869, many Chinese came to Marin to work on the North Pacific Coast Railroad. When economic recession hit San Francisco in the 1870s, those who found that many factory and mill jobs were taken by Chinese working at low wages persecuted the Chinese. As a result, 10,000 Chinese fled to Marin County where they settled in "China Camp" near San Rafael.

Marin City is the only community in Marin where Blacks outnumber Whites (Futcher 1981). Shipyard workers were placed in temporary housing there in the 1940s (Futcher 1981; Teather 1974). When the war ended, many Blacks were unemployed and the residential communities in Marin were racially restrictive. Many of the shipyard workers stayed on in Marin City's wartime housing.

Marin County Today

In the 1980s and 1990s, Marin County was the slowest growing county in the region in terms of population. Much of Marin's future job growth will be in the services sector. Marin's historically high average household income is dependent upon residents commuting to higher paying jobs in other counties. If people do work in the county they tend to live elsewhere, most notably Sonoma County to the north, and commute to Marin County because many jobs in the county do not pay sufficient wages to enable workers to live locally (Dawson 2001). Marin's aging population will have major implications for public policy decisions in the next 20 years because retirees will be a significant percentage of the population. By 2020, more than 34 percent of the county's population is expected to be older than 60 years of age (Association of Bay Area Governments 1999).

Sociodemographic Characteristics

Projected Population—DOF and ABAG calculated population projections for Marin County (*table 111*). Even though Marin has the smallest population of the Bay Area counties, an increasing population is still expected through the forecast period. Initially, DOF and ABAG projections match closely, varying by only 59 persons. As the projections move into the future, the gap between DOF and ABAG numbers widens to 6,770. Even so, this difference is relatively small, and it could be said that DOF and ABAG are in general agreement about the amount and rate of growth that will occur in Marin County through the forecast period.

Table 111—*Population projections, Marin County, 1990-2040.*

Source	1990	1995	2000	2005	2010	2015	2020	2030	2040
U.S. Census	230,096[1]	-	247,289	-	-	-	-	-	-
DOF	230,155[2]	-	248,397	-	258,569	-	268,630	282,864	297,307
ABAG	230,096	238,500	250,400	259,900	267,900	272,400	275,400	-	-

Source: United States Census Bureau 1990a and 2000, State of California Department of Finance 1998, Association of Bay Area Governments 1999

[1] Data from April 1.

[2] Data from July 1.

Ethnic and Racial Diversity—In 1990 and 2000, Marin County's population was predominantly White (*table 112*). A comparison with U.S. Census numbers from other Bay Area counties reveals less ethnic diversity in Marin County. Hispanics were the next largest ethnic group in Marin County in 1990 and 2000, but they still were a small proportion of the population.

Table 112—*1990 and 2000 population, Marin County.*

	1990	2000
	Percent	
Non-Hispanic White	84.6	78.6
Hispanic all races	7.8	11.1
Non-Hispanic Black	3.3	2.8
Non-Hispanic Asian	3.9	4.6
Non-Hispanic American Indian	0.3	0.3
Non-Hispanic other	0.1	0.3
Non-Hispanic two or more races	N/A	2.4

Source: United States Census Bureau 1990a, 2000

In 1990, 13.3 percent of Marin County's population was foreign-born. Fifteen percent of residents age 5 and older spoke a language other than English at home. Of those, most (59.6 percent) spoke a language other than English or Spanish, though 40.4 percent spoke Spanish (United States Census Bureau 1990b).

The majority of LEP students in Marin County public schools speak Spanish—mirroring the languages spoken at home—then a selection of other languages, including Vietnamese, Korean, and Farsi (*fig. 158*). (Other languages include Hmong, Cantonese, Pilipino, Khmer, Armenian, Mandarin, Lao, Russian, Punjabi, Arabic, and Mien.) In 1997-98, 9.5 percent of Marin County's public school students were LEP.

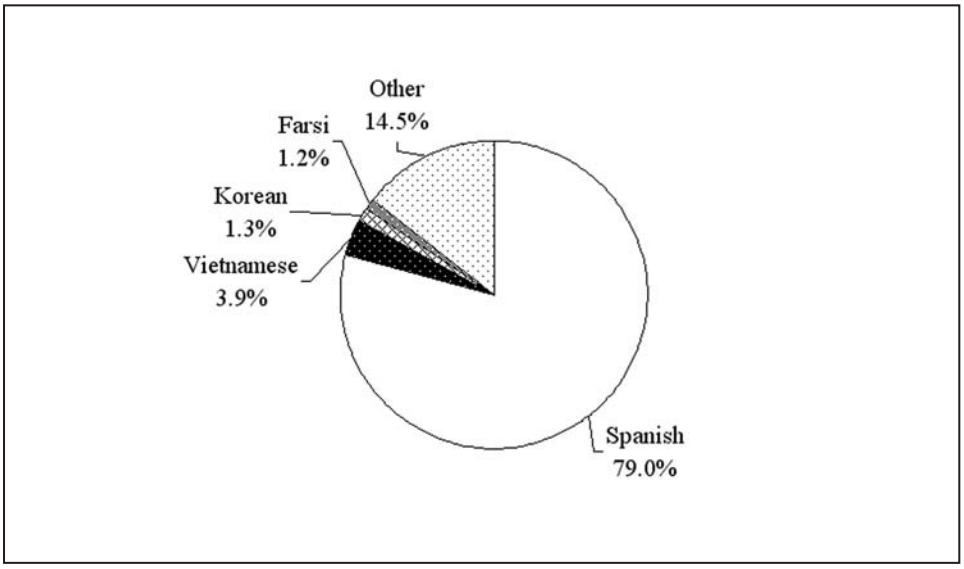


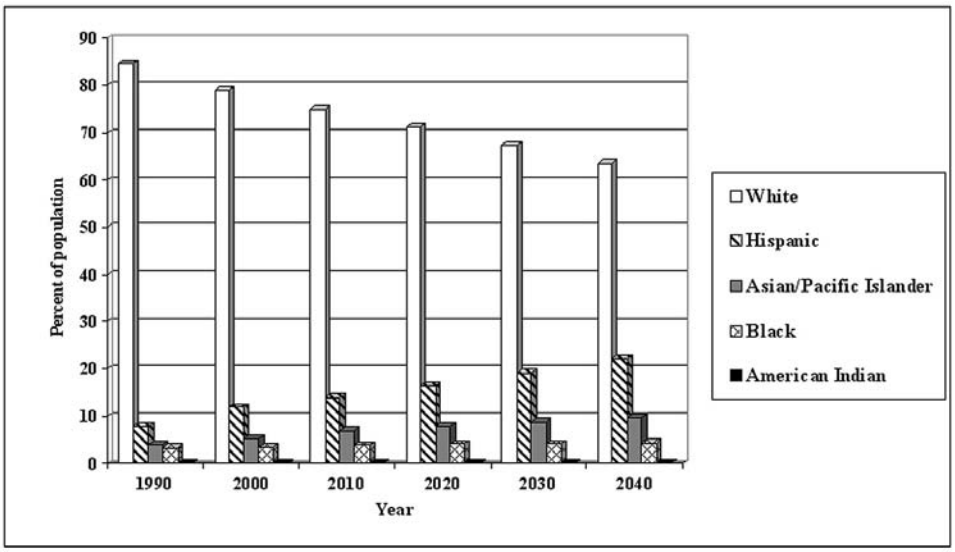
Figure 158—Limited-English-Proficient (LEP) students in Marin County public school districts, by language, 1997-1998.

Source: California Department of Education 1998b

Projected Ethnic and Racial Diversity—As Marin County's population increases, racial and ethnic diversity are projected to increase, although not as much as in other Bay Area counties. The White population is projected to decrease as a proportion of the total population between 1990 and 2040, while Hispanics, Asians, and Blacks are all projected to increase as proportions of the total population. The proportion of American Indians is expected to decrease slightly (*fig. 159*).

The percentage of total population accounted for by Whites is expected to decrease by approximately 21 percent through the forecast period, while Hispanics, Asians, and Blacks are expected to increase their proportions of the total population by approximately 14, 6, and 1 percent, respectively. The American Indian population is expected to decrease in proportion by less than one-fourth percent (*table 113*).

Figure 159—Racial and ethnic diversity trends for Marin County.



Source: State of California Department of Finance 1998

Table 113—*Percent race/ethnicity and percent change in Marin County, 1990-2040.*

Racial/ethnic group	1990	2000	2010	2020	2030	2040	Cumulative percent change
	Year						
White	84.61 -	79.10 (-5.51)	75.04 (-4.05)	71.30 (-3.74)	67.46 (-3.84)	63.70 (-3.76)	-20.90
Hispanic	7.87 -	11.97 (4.10)	14.08 (2.12)	16.49 (2.41)	19.25 (2.76)	22.12 (2.87)	14.25
Asian/Pacific Islander	3.96 -	5.26 (1.30)	6.87 (1.61)	7.92 (1.05)	8.90 (0.98)	9.72 (0.82)	5.76
Black	3.28 -	3.43 (0.15)	3.76 (0.33)	4.07 (0.30)	4.19 (0.12)	4.29 (0.10)	1.01
American Indian	0.29 -	0.25 (-0.04)	0.24 (-0.01)	0.22 (-0.02)	0.19 (-0.03)	0.16 (-0.03)	-0.13

Source: State of California Department of Finance 1998

Along with the projected changes in race and ethnicity, changes in the area population's age are projected. Projected median age for Marin residents varies by race/ethnicity and gender. American Indians are projected to have the highest projected median age for the forecast period (increasing from 34 to 58) (*fig. 160*). Blacks and Asians are expected to have moderate increases in age (from 30 to 37 and 32.5 to 40.5, respectively). Hispanics have the lowest projected median age (staying at 27.5). In 1990, the median age of Marin's population was the highest among the nine Bay Area counties (County of Marin 1994).

Development and Real Estate

Of all the Bay Area counties, construction valuation was lowest between 1987 and 1998 in Marin County (*fig. 161*). This means that from 1987 to 1998 less construction was occurring in Marin than anywhere else in the Bay Area. Of the construction that was occurring, the majority was residential development in incorporated areas, though 1989 began a period of significant decrease. Recovery

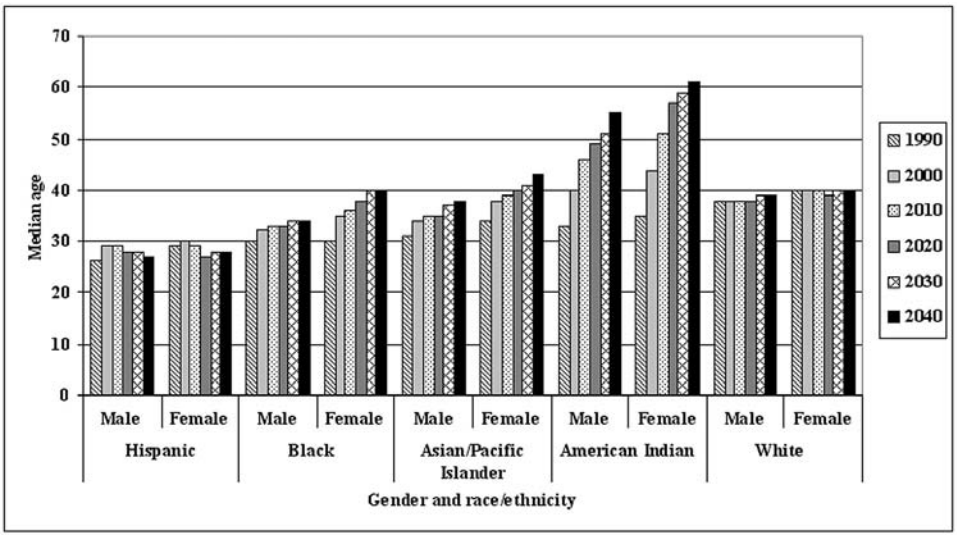


Figure 160—Median age by gender and race/ethnicity, Marin County, 1990-2040.

Source: State of California Department of Finance 1998

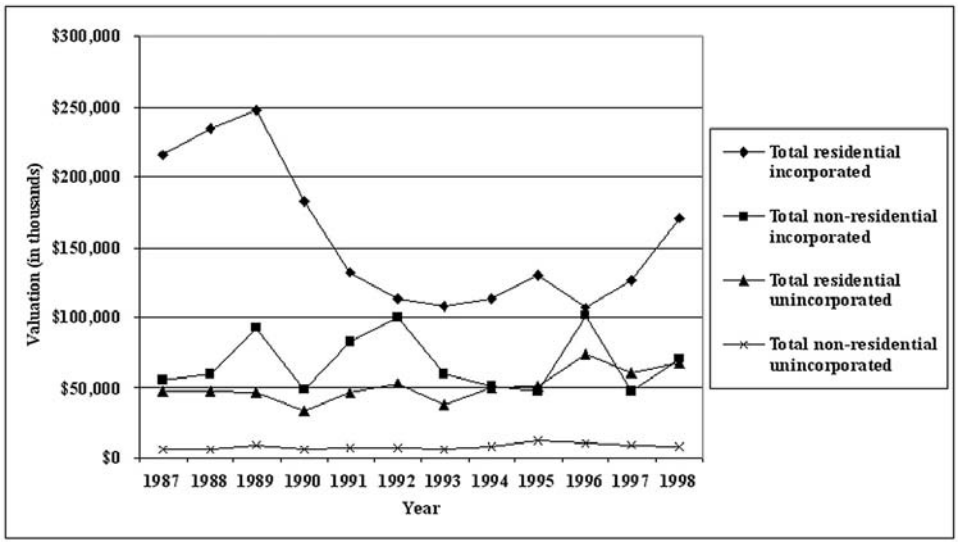


Figure 161—Building trends, Marin County, in 1998 dollars, 1987-1998.

Source: Construction Industry Research Board 1988-1999

began in 1996. Nonresidential construction in unincorporated areas was a small and relatively stable percentage of development in the county.

In 1990, Marin County had 95,006 households and 99,757 housing units. The vast majority (95.2 percent) of housing units were occupied; 4.8 percent were vacant (United States Census Bureau 1990a). Of the occupied housing units, the majority (62.1 percent) were owner-occupied, though 37.9 percent were renter-occupied (United States Census Bureau 1990a). The median value of owner-occupied housing units in 1990 was $354,200, and the median rent was $824 per month.

There is also potential for additional housing units to be built countywide. The greatest potential for housing development is in Richardson Bay, Las Gallinas Valley, and Novato (County of Marin 1994).

Quality of Life Indicators

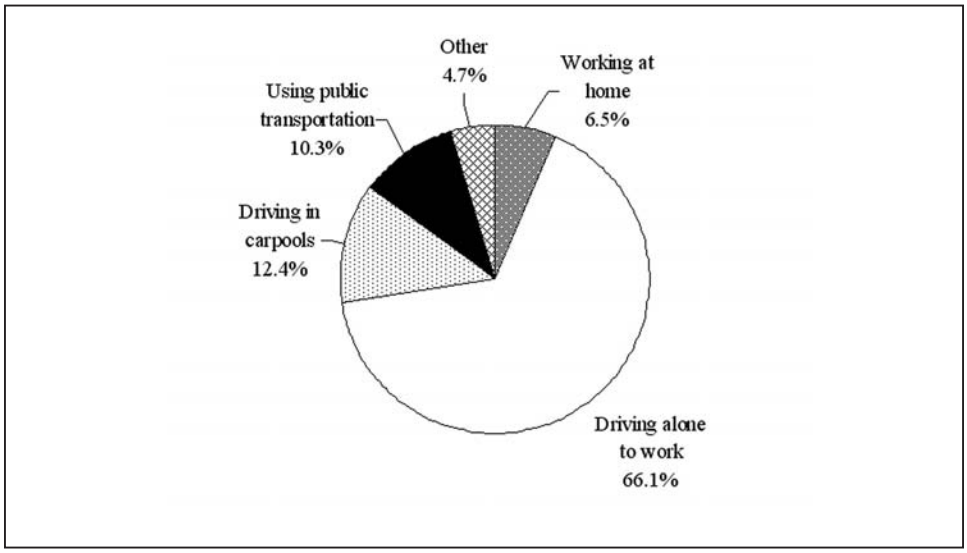
Transportation, Commuting, and Employment—In 1990, there were 125,080 workers age 16 and older in Marin County, and an average of 1.8 vehicles per household. More than one-third (41 percent) of residents worked outside the county. The majority (66.1 percent) of workers drove to work alone, although some

carpooled (12.4 percent) or used public transportation (10.3 percent) *(fig. 162)*. The average travel time to work was 28.4 minutes, which was longer than the average commute of 26.5 minutes for seven of the Bay Area counties.

Salaries generally do not match the cost of living in Marin. Therefore, residents commute out of the county to higher paying jobs elsewhere. More jobs need to be developed within the county to reverse this trend. Hamilton Air Force Base in Novato is the largest single site available for commercial and industrial development (County of Marin 1994). Wholesale trade, finance, insurance, real estate, and services are expected to remain the major industries in Marin (County of Marin 1994).

Land in farms, the average size of farms, and the number of full-time farms decreased in the county from 1992 to 1997. However, the market value of agricultural products sold increased to $53,879,000 during the same period, an increase of 28 percent (United States Department of Agriculture 1997). The top five commodities are dairy products, cattle and calves, poultry, aquaculture, and nursery and greenhouse crops.

Figure 162—Commuting patterns, workers 16 and older, Marin County, 1990.



Source: United States Census Bureau 1990b

Education—Marin County serves the largest number of students in its elementary schools (*table 114*). The county also has more elementary schools (44) than middle and high schools (10 and 8, respectively). Average enrollment per school is greatest at the high school level, which is the pattern across the assessment area and all counties. Marin County serves 0.5 percent of the assessment area's school enrollments. County schools have the 24th highest enrollment overall and they are 26th in highest average enrollment per school. Students in 2nd through 11th grade were tested using the Stanford 9 at 51 of the county schools. Marin County's ranking in academic performance for 1999 was a mean of 6.47 out of 10 (based on the similarity index, www.cde.ca.gov), indicating a higher than average performance than similar schools. Although 9.8 and 15.7 percent of schools in the county performed well below or below average compared to similar schools, 29.4 percent were well above average and 27.4 percent were above average.

Table 114—*Enrollment and number of schools, Marin County, 1998-1999.*

Type of school	Total enrollment	Percent of total enrollment	Number of schools	Average enrollment/school
Elementary	14,318	51.7	44	325
Middle/Junior High	5,867	21.2	10	587
High School	7,494	27.1	8	937
Total	27,679	100.0	62	-

Source: California Department of Education 1998a

Health Care—The largest number of health care establishments in the county deliver ambulatory health care services, followed by social assistance, and nursing and residential care (*fig. 163*). There are no hospitals in the county as reported by the U.S. Census Bureau. However, the county has five hospitals, representing 1.3 percent of the assessment area's total hospitals (ahd.tool.net/list.php3/mstate=ca). The majority (60.0 percent) of the hospitals are nonprofit, with the balance classified as for-profit (40.0 percent) facilities. For those hospitals with reported data (four hospitals), a total of 329 beds and 55,688 total patient days were recorded in 1999. The county ranked 19th in number of hospitals, comparable to its 21st place ranking in population.

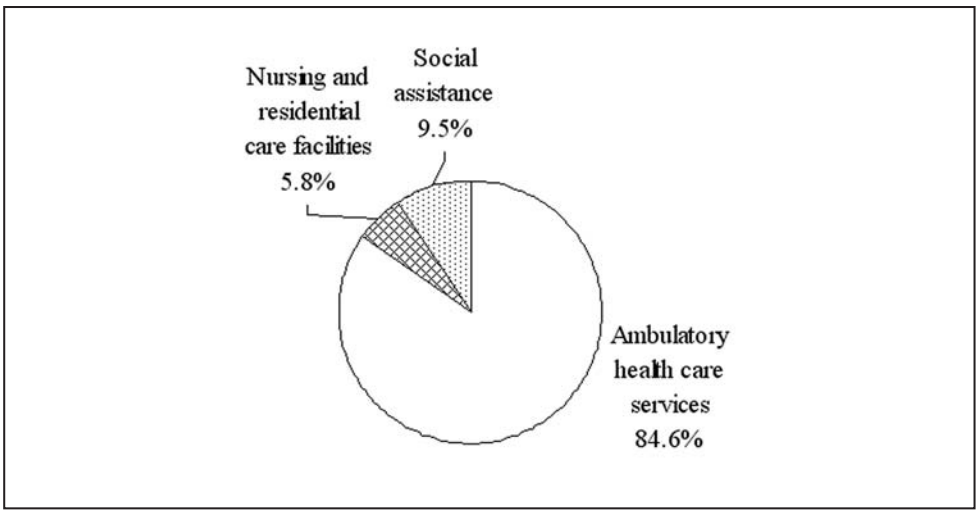


Figure 163—Health care and social assistance establishments, Marin County, 1997.

Source: United States Census Bureau 1999a

Recreation and Tourism—Among the assessment area's 26 counties, Marin ranked 18th in the 1997 economic census in accommodations and food services, and 13th in arts, entertainment, and recreation (United States Census Bureau 1999b, 1999c). A total of 680 accommodation and food-services establishments, with $414,670,000 in receipts, was reported. Arts, entertainment, and recreation services involved 143 establishments, with receipts totaling $113,648,000.

Marin County has many sites of special interest to recreationists and tourists. Visitors can take a ferry to Alcatraz for a tour of the infamous prison on the island (www.visitmarin.org). The Golden Gate National Recreation Area is

a 73,000-acre park, located within full view of the Golden Gate Bridge. Also of interest is Point Reyes National Seashore, with a 2000 attendance of 2,325,500 (www.visitCalifornia.com).

Environmental Indicators

Water Quality—Marin County crosses three watersheds: Bodega Bay, San Pablo Bay, and the Tomales-Drake Bays (www.epa.gov/surf3/surf98/county.html). (Watersheds frequently cross county boundaries. Therefore, some counties may include watersheds that are also located in other counties.) The Tomales-Drake Bays watershed was assigned a "5" by the EPA, indicating "more serious water quality problems but low vulnerability to pollution stressors." (According to the EPA's Index of Watershed Indicators procedures, a pollution stressor includes aquatic/wetland species at risk, toxic loads above limits, urban runoff potential, agricultural runoff potential, population change, hydrologic modification, estuarine pollution susceptibility, and atmospheric deposition.) The San Pablo Bay was assigned a "4," indicating "less serious water quality problems but high vulnerability to pollution stressors." Bodega Bay was assigned a "3," indicating "less serious water quality problems and low vulnerability to pollution stressors."

Air Quality—Marin County has the 21st largest population of the 26 counties, paired with the 24th highest emissions in various categories (*table 115*). Marin County is 24th highest in total organic gases emissions, 25th in reactive organic gases emissions, and 24th in carbon monoxide emissions. The majority of emissions are projected for marginal decreases dependent upon emission type. Particulates are largest from area-wide sources and are not projected to increase, according to the California Air Resources Board (1999).

Table 115—*1996 estimated and 2010 forecasted annual average emissions, Marin County (cells do not add to column totals due to rounding error).*

Year	Emission category	Emission type[1]						
		TOG	ROG	CO	NOx	SOx	PM	PM10
1996	Stationary	13	3	0	0	0	0	0
	Area-Wide	9	4	14	1	0	11	6
	Mobile	16	14	130	16	0	1	1
	Natural	-	-	-	-	-	-	-
	Total	38	21	140	17	0	12	7
2010	Stationary	15	2	0	0	-	0	0
	Area-Wide	9	4	11	1	0	11	6
	Mobile	7	7	63	8	0	1	0
	Natural	-	-	-	-	-	-	-
	Total	31	13	75	9	0	12	7

Source: California Air Resources Board 1999

[1]TOG: total organic gases; ROG: reactive organic gases; CO: carbon monoxide; NOx: nitrogen oxides; SOx: sulfur oxides; PM: particulate matter; PM10: particulate matter less than or equal to 10 microns (*appendix D*).

Implications

The North Bay is very different from the rest of the Bay Area. It has a less urban character and much smaller growth in jobs and housing than surrounding

counties. Marin has the smallest population of the Bay Area counties. Its decision not to have BART has meant that it has remained more isolated than other counties around the Bay.

Both population and the number of housing units in Marin County grew rapidly between 1960 and 1970, but growth slowed in the 1980s. Trends occurring between 1960 and the 1990s include: (1) a dramatic rise in the cost of housing; (2) a rise in the median age of the local population; and (3) a decrease in family size (County of Marin 1994). As the population continues to age, household size is expected to drop even further.

Marin's major attributes include a high quality of life, a well-educated population, and promising business sectors, especially cottage industries, multi-media, computers, and bioscience. However, Marin's major liabilities include the lack of a viable economic base of employment; a declining tax base; regulatory, transport, and available space constraints; and an underutilized education system that could serve business needs (County of Marin 1994).

As described in the Marin Countywide Plan (County of Marin 1994), Marin historically has served as a bedroom community for commuters with jobs in San Francisco. As commuters moved north and east to take advantage of lower housing costs, traffic through the county increased. The lack of affordable housing has had profound impacts in Marin. "The county has lost some social, economic and age diversity which diminishes the ability to fill jobs necessary for local well-being. The impacts of these trends will increase as time passes unless there is a redirection of effort toward the creation of more affordable housing, more jobs for local residents, and a more effective system for managing travel in Marin County" (County of Marin 1994, p. CD-7).

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San Francisco County

- San Francisco County has the highest projected median age for any Bay Area county.
- San Francisco is the most ethnically diverse county in the nation.
- The county's land mass is completely incorporated, precluding outward expansion.
- By 2020, Asians will be the largest ethnic group in the county, setting it apart from all other counties in the Bay Area and in the assessment.

History

According to Richards' (1997) historical account, the first inhabitants of the Bay Area were the Coast Miwoks, Wintun, Yokuts, and Ohlone (Costanoans). They arrived between 5,000 and 10,000 years ago and led a peaceful existence until the arrival of European explorers and settlers brought catastrophe. The Indian population of California numbered about 300,000 in 1776, but plummeted to roughly 20,000 about 100 years later.

In 1775, Juan Manuel de Ayala became the first European to sail through the Golden Gate, with a mission to explore and map the Bay. The first settlers arrived in 1776 and established the Presidio overlooking the Golden Gate, and Mission Dolores further inland. When Spain's rule over California ended in 1821, San Francisco (*fig. 164*) became a Mexican territory. After 1834, land grants were given out, and some were as large as 48,000 acres, which could support cattle ranching. With Mexican independence came freedom to trade with other nations. By the 1830s trading vessels from the east were coming to San Francisco to buy hides and tallow for leather tanneries and factories in New England.

In the 1840s California came under U.S. rule. The original name of the settlement was changed from Yerba Buena to San Francisco, and the first city streets and boundaries were mapped. With the growth of the city, timber was needed for building materials, and the best lumber was found in the Sierra foothill town of Coloma. During construction of the sawmill in 1848 gold was discovered. This event had tremendous impact on San Francisco. The Gold Rush hastened the growth of many industries to support miners. The demand for beef led to a burgeoning cattle industry, and the demand for fresh fruits and vegetables led to an agricultural boom. Lumber was also in great demand. Banking became one of San

Figure 164—San Francisco County (shaded area) is west along the bay.

Source: 50 Individual States—Counties 1995

Francisco's leading commercial activities in the 1850s as a medium of exchange more manageable than gold nuggets and dust. Banking services, providing capital investment, were also needed as mining operations exhausted surface gold and needed to go deeper underground.

The construction of Fort Point, built to protect the Golden Gate, began in the 1850s. The fort was just becoming operational as the Civil War began. The 1850s also saw the decline of the ranchos. Ranch hands deserted for the mines along with everyone else.

In 1859 a rich vein of silver ore was discovered northeast of Carson City, Nevada. San Francisco financiers supplied the capital to develop the mines, and merchants provided the necessary supplies and mining equipment. This economic activity generated a building boom in the 1860s and 1870s.

At this time, four Sacramento merchants (Charles Crocker, Mark Hopkins, Collis P. Huntington, and Leland Stanford) built the Central Pacific Railroad, the western half of the first transcontinental railroad. San Francisco was no longer insulated from price competition from eastern markets, causing prices to fall. The railway also became a way for thousands of unemployed workers to come to California, driving down wages and prices. Therefore, San Francisco found itself in the midst of a depression in the 1870s despite its wealth from silver. The depression followed the completion of the railroad. In 1869, with the railroad finished, 20,000 Chinese were suddenly out of work. Most returned to San Francisco. With high unemployment, Chinese were willing to work for lower wages, and soon became scapegoats and targets. As a result, they withdrew into an enclave—Chinatown.

In the last decades of the 19th century, San Francisco had an increasingly diversified economy based on shipping, fishing, agriculture, and manufacturing. In the 1880s and 1890s the city grew as cable car lines spread out from the city center, opening up new areas for development.

The 1906 earthquake and subsequent fires devastated the city. A little more than 3,000 people died, 514 city blocks—over 4 square miles—were reduced to ashes, and two-thirds of the city's residents were left homeless.

Angel Island—the largest island in the San Francisco Bay—opened in 1910 as a detention center for immigrants awaiting entry papers and the outcome of medical exams. The "Ellis Island of the West," it was meant to serve European immigrants as well as Chinese and other Asians. World War I and the tightening of immigration laws blocked European immigration. Thus, during Angel Island's 30-year life, 97 percent of the newcomers processed through Angel Island were Chinese.

World War II brought a huge influx of people—military and civilian—that transformed the city into the international, multi-ethnic metropolis of today.

In 1944 the Bay Area led the world in shipbuilding. The shipyards built all types of vessels, but they produced mostly Liberty ships, which were cargo vessels used to carry a wide variety of supplies to troops overseas.

After the war, people settled down, pursued careers, and raised families. In reaction to this conformity, a small group spoke out against the complacency they saw in the face of problems, such as racism and the specter of nuclear annihilation. This group became known as the Beats, after Jack Kerouac's description of his generation as a "beaten" one. The Beats were joined later by a group not considered as hip as themselves, this new and younger crowd became "hippies." Both groups resided in the largely Black neighborhood of Haight-Ashbury. The Haight became known with the "Summer of Love" in 1967, which signaled the onset of the psychedelic drug movement, rock-and-roll, and a philosophy of nonconformity.

San Francisco County Today

San Francisco today no longer has the manufacturing base it had before World War II. As with many other U.S. cities, San Francisco witnessed an economic transition from manufacturing to services. As the food products companies, printing

and lithography companies, and shipping companies declined, the city's working class also dwindled. Of the 58,500 jobs expected to locate in the city between 2000 and 2010, 66 percent of them will be in the services sector (Association of Bay Area Governments 1999). The city has a large financial complex that includes support businesses such as law firms. Huge growth in tourism and the convention business in the late 1990s created thousands of new hotel rooms as well as the rehabilitation of smaller hotels to accommodate the increase in visitors.

San Francisco is known for its progressive politics, and since World War II, a gay community has grown in the city. Because many of the Beat poets were homosexuals, there was an overlap of the Beat and gay communities in the 1950s in the North Beach area. The gay community has since gravitated to "The Castro" area of the city. It is estimated that gays are between 15 and 25 percent of San Francisco's population (Fracchia 1997).

Sociodemographic Characteristics

Projected Population—DOF and ABAG calculated population projections for San Francisco County (*table 116*). DOF predicted a decreasing population in San Francisco from 2000 to 2040, while ABAG predicted an increasing population until 2010, then a decrease. The predictions of decreasing population in the central city mirror larger trends of decentralization, as people and jobs move to outlying counties in the Bay Area. Furthermore, as the population ages household sizes tend to decrease (Association of Bay Area Governments 1997, 1999).

Table 116—*Population projections, San Francisco County, 1990-2040.*

Source	1990	1995	2000	2005	2010	2015	2020	2030	2040
U.S. Census	723,959[1]	-	776,733	-	-	-	-	-	-
DOF	727,873[2]	-	792,049	-	782,469	-	750,904	724,863	681,924
ABAG	723,959	751,700	799,000	815,600	818,800	812,900	808,800	-	-

Source: United States Census Bureau 1990a and 2000, State of California Department of Finance 1998, Association of Bay Area Governments 1999

[1] Data from April 1.

[2] Data from July 1.

Ethnic and Racial Diversity—San Francisco has undergone tremendous ethnic change to become the nation's most ethnically diverse county (Allen and Turner 1990). In the 19th and first half of the 20th centuries, foreign-born residents of the city were European. At the end of the 20th century, they were Asian or Latin American. Today Chinatown accounts for one-quarter of the city's population (Fracchia 1997). The Chinese community has expanded out of the confines of Chinatown and has established businesses in the traditional Italian enclave of North Beach. In 1940, Blacks constituted less than 1 percent of San Francisco's population. Thousands came during World War II for the war industry jobs on the West Coast. Today, Blacks compose about 10 percent of San Francisco's population (Fracchia 1997). Hispanics and American Indians in the city have the longest histories, but very few of the latter remain today. The population of Hispanics who resided in San Francisco during the Spanish and Mexican periods dwindled, especially after the takeover of California in 1846. However, Hispanics from other parts of the Southwest began to migrate to San Francisco during the Gold Rush. The Hispanic population is scattered throughout the city but is somewhat concentrated in the Mission district. San Francisco's Hispanic population is more than 10 percent. San Francisco has a number of fast-growing ethnic groups: Filipinos, Pacific Islanders, Koreans, East Indians, and Arabs (Fracchia 1997).

In 1990 and 2000 the largest ethnic groups in San Francisco County were Whites followed by Asians (*table 117*). Whites, Blacks, and American Indians decreased as proportions of the population from 1990 to 2000 while Asians and Hispanics increased as proportions of the population.

Table 117—*1990 and 2000 population, San Francisco County.*

	1990	2000
	Percent	
Non-Hispanic White	46.6	43.6
Hispanic all races	13.9	14.1
Non-Hispanic Black	10.5	7.6
Non-Hispanic Asian	28.4	31.1
Non-Hispanic American Indian	0.4	0.3
Non-Hispanic other	0.2	0.3
Non-Hispanic two or more races	N/A	3.0

Source: United States Census Bureau 1990a, 2000

Approximately half of San Francisco County's population was White. The next largest ethnic group was Asian, followed by Hispanics, Blacks, and then American Indians. The large percentage of Asians is a result of immigration from the Pacific Rim. In 1990, 34 percent of San Francisco County's population was foreign-born. More than 42 percent of residents age 5 and older spoke a language other than English at home. Of those, most (74 percent) spoke a language other than English or Spanish, more than one-fourth (26 percent) spoke Spanish (United States Census Bureau 1990b).

An almost equal number of LEP students in San Francisco County's public schools speak Spanish or Cantonese—mirroring the languages spoken at home (*fig. 165*). In 1997-98, 30.8 percent of San Francisco's public school students were LEP.

Projected Ethnic and Racial Diversity—Between 1990 and 2040, Whites are expected to decrease substantially as a proportion of the total population (*fig. 166*). Blacks and American Indians are also projected for decreases as portions of the total population. Increases in share of population are projected for Asians and Hispanics.

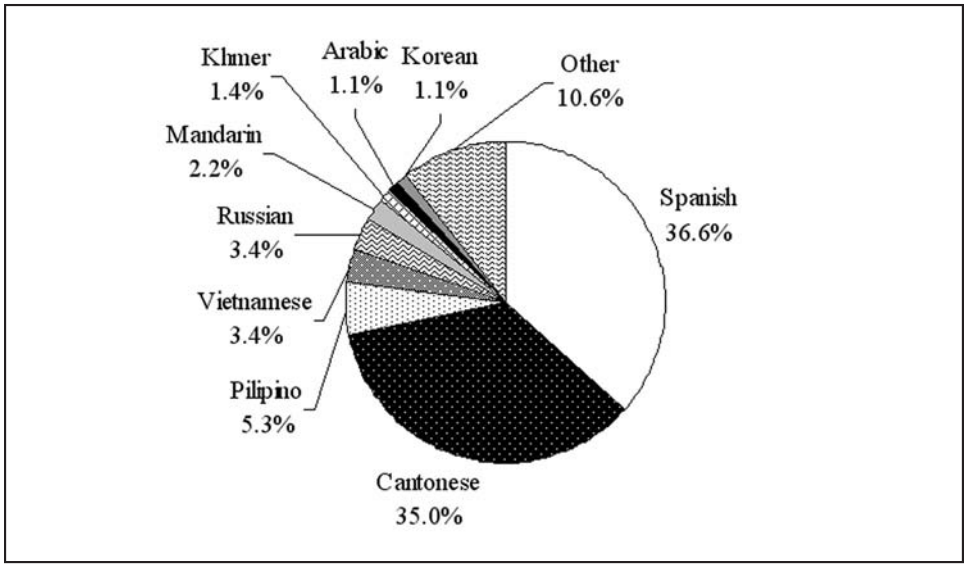


Figure 165—Limited-English-Proficient (LEP) students in San Francisco County public school districts, by language, 1997-1998.

Source: California Department of Education 1998b

The White population is expected to decrease as a share of the population by approximately 23 percent, Blacks by slightly less than 2 percent, and American Indians by less than one-tenth of a percent during the forecast period (*table 118*). In contrast, the Asian and Hispanic populations each are projected for percentage increases of approximately 12 percent.

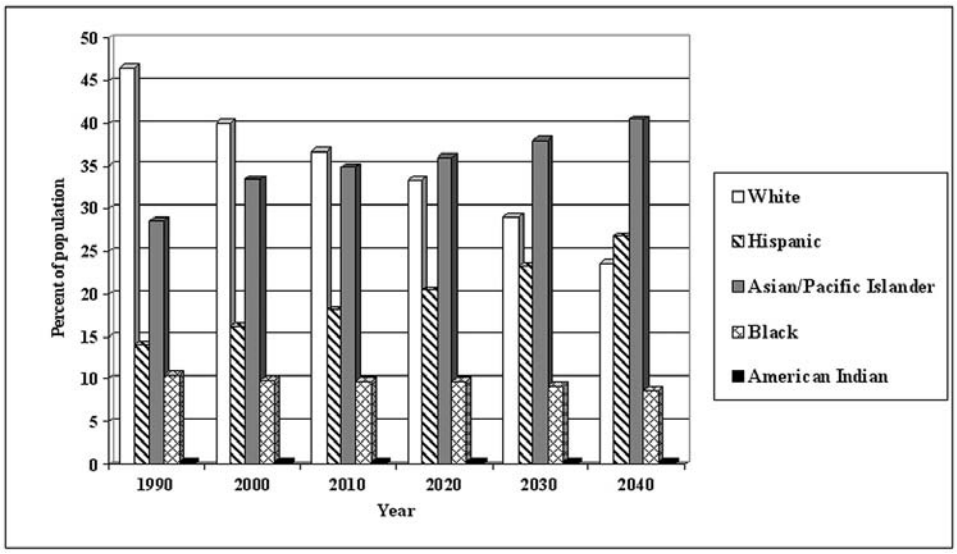


Figure 166—Racial and ethnic diversity trends for San Francisco County.

Source: State of California Department of Finance 1998

Table 118—*Percent race/ethnicity and percent change in San Francisco County, 1990-2040.*

Racial/ethnic group	1990	2000	2010	2020	2030	2040	Cumulative percent change
	Year						
White	46.57 -	40.05 (-6.52)	36.81 (-3.24)	33.36 (-3.45)	29.07 (-4.29)	23.69 (-5.38)	-22.88
Hispanic	13.97 -	16.19 (2.22)	18.19 (2.00)	20.49 (2.30)	23.30 (2.81)	26.81 (3.51)	12.84
Asian/Pacific Islander	28.57 -	33.43 (4.86)	34.87 (1.44)	36.08 (1.20)	38.09 (2.01)	40.50 (2.41)	11.93
Black	10.53 -	9.99 (-0.54)	9.79 (-0.20)	9.74 (-0.05)	9.22 (-0.52)	8.71 (-0.51)	-1.81
American Indian	0.36 -	0.34 (-0.02)	0.34 (0.00)	0.34 (0.00)	0.32 (-0.02)	0.29 (-0.03)	-0.07

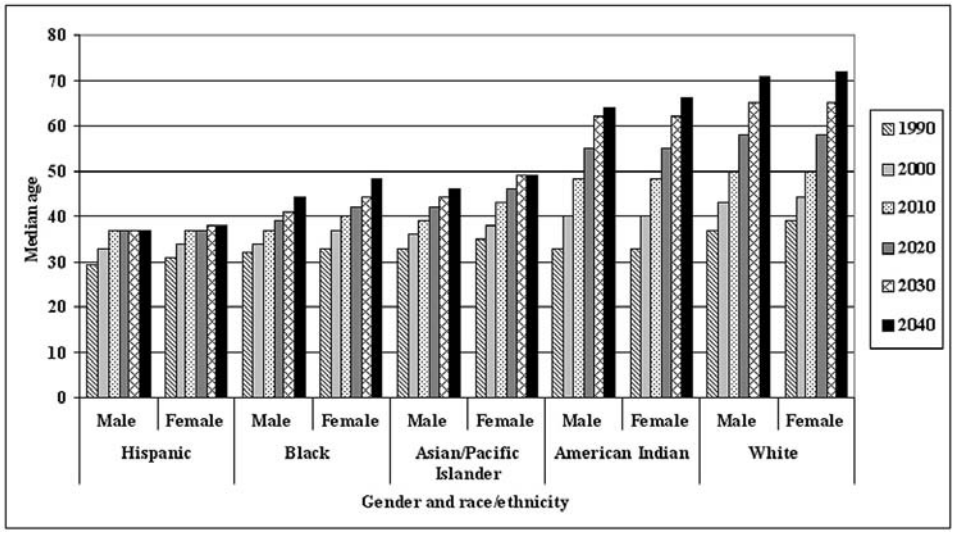
Source: State of California Department of Finance 1998

The overall median age for the county is expected to increase, from 35 to 49 years. This is the greatest increase in median age of all the Bay Area counties. Projected median age for San Franciscans varies by race/ethnicity and gender. Females have higher median ages across all ethnic groups except Hispanics for the forecast period. Whites and American Indians have the steepest projected increases in median age (from 38 to 71.5 and 33 to 65, respectively). Lesser increases are projected for Hispanics (from 30 to 37.5 years), Blacks (from 32.5 to 46), and Asians (from 34 to 37.5 years) (*fig. 167*).

Development and Real Estate

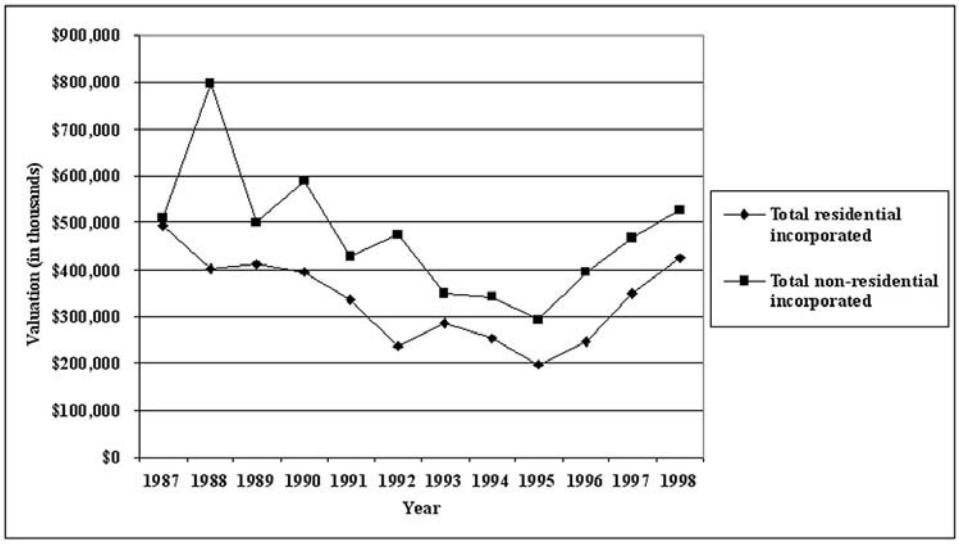
Nonresidential construction in San Francisco was greater than residential construction throughout the 1987 to 1998 period, perhaps partially accounting for the current housing crisis in the city (*fig. 168*). Although residential and nonresidential construction fluctuated, both were on the decline after 1989 and only rebounded beginning in 1995. Because the county and city limits are the same, San Francisco County does not have any unincorporated area, and thus, no room for expansion.

Figure 167—Median age by gender and race/ethnicity, San Francisco County, 1990-2040.



Source: State of California Department of Finance 1998

Figure 168—Building trends, San Francisco County, in 1998 dollars, 1987-1998.



Source: Construction Industry Research Board 1988-1999

In 1990, San Francisco had 305,584 households and 328,471 housing units. The majority (93 percent) of housing units were occupied, with few (7 percent) vacant (United States Census Bureau 1990a). Of the occupied housing units, a majority (65.5 percent) were renter-occupied; slightly more than one-third (34.5 percent) were owner-occupied (United States Census Bureau 1990a). This high renter-occupancy rate is unique among Bay Area counties. The median value of owner-occupied housing units in 1990 was $298,900 and the median rent was $653.

Quality of Life Indicators

Transportation, Commuting, and Employment—In 1990, there were 382,309 workers age 16 and older in San Francisco County, and an average of 1.1 vehicles per household. Almost 20 percent of San Francisco County residents worked outside the county. The majority (38.5 percent) of workers drove to work alone, but the use of public transportation was a close second (33.5 percent) (*fig. 169*). Almost equal numbers of people used "other" modes of transportation to get to work as drove in carpools. ("Other" includes the use of motorcycles, bicycles, walking,

and other means.) San Francisco represents the most diverse use of modes of transportation of the Bay Area counties. The average travel time to work was 26.9 minutes, which was slightly longer than the average commute of 26.5 minutes for seven of the Bay Area counties.

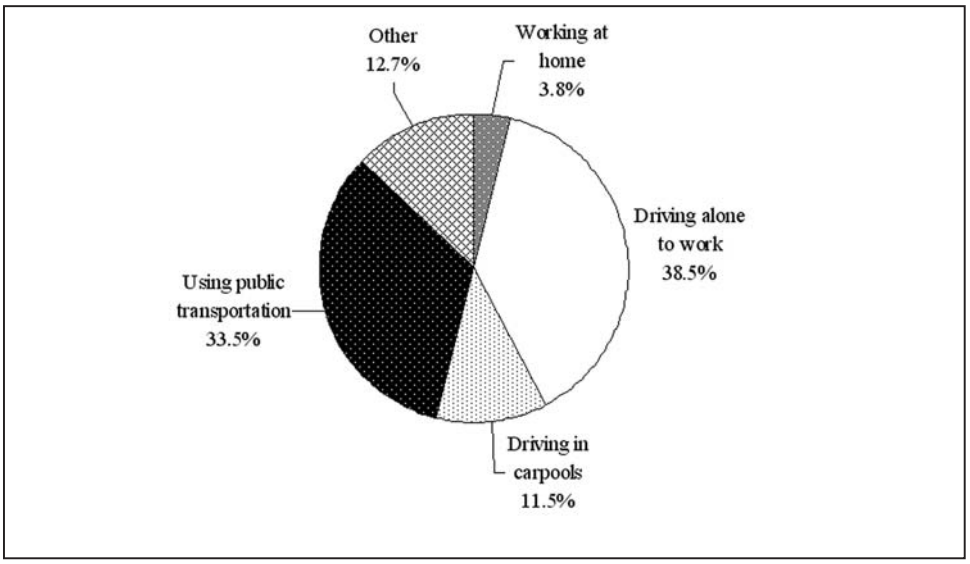


Figure 169—Commuting patterns, workers 16 and older, San Francisco County, 1990.

Source: United States Census Bureau 1990b

The recession of the early 1990s hit the city hard with approximately 39,000 jobs lost. There were losses in communications, trade, finance, insurance, business, professional, and engineering services—all higher paying jobs (Association of Bay Area Governments 1999) despite the fact that San Francisco is home to the West's two largest banks—Bank of America and Wells Fargo. Despite the economic hard times, the city remained committed to the refurbishment of important civic buildings. The early 1990s saw bond issues passed to retrofit a number of public buildings including the City Hall, the Opera House, and the Veteran's Building; and a new Main Library was also constructed (Fracchia 1997). The job situation has improved, and San Francisco is currently experiencing a surge in available jobs in internet and multimedia industries. Between 2000 and 2010, ABAG expects an additional 58,500 jobs to be located in San Francisco (Association of Bay Area Governments 1999). Although the economy has improved in San Francisco, it is expected that the city and county will continue to net a smaller share of the region's jobs as opportunities move out to Alameda and Contra Costa Counties (Association of Bay Area Governments 1999).

San Francisco is a fully urbanized region and therefore, the number of farms is very small. In 1997, there were only 9 farms ranging in size up to 9 acres (United States Department of Agriculture 1997).

Education—San Francisco County serves the largest number of students in its elementary schools (*table 119*). The county also has more elementary schools (78) than middle and high schools (17 of each). Average enrollment per school is greatest at the high school level, which is the pattern across the assessment area and all counties. San Francisco County serves 1 percent of the assessment area's school enrollments. County schools have the 19th highest enrollment overall, and they are 24th in highest average enrollment per school. Students in 2nd through 11th grade were tested using the Stanford 9 at 100 of the county schools. San Francisco County's ranking in academic performance for 1999 was a mean of 5.67 out of 10 (based on the similarity index, www.cde.ca.gov), indicating a slightly higher than average performance than similar schools. Although 24.8 and 12.8 percent of schools in the county performed well below or below average compared to similar schools, 23.8 percent were well above average and 20.8 percent were above average.

Table 119—*Enrollment and number of schools, San Francisco County, 1998-1999.*

Type of school	Total enrollment	Percent of total enrollment	Number of schools	Average enrollment/school
Elementary	30,086	50.2	78	386
Middle/Junior High	12,152	20.3	17	715
High School	17,734	29.6	17	1,043
Total	59,972	100.0	112	-

Source: California Department of Education 1998a

Health Care—The largest number of health care establishments in the county deliver ambulatory health care services, followed by social assistance, and nursing and residential care (*fig. 170*). There are no hospitals in the county as reported by the U.S. Census Bureau. However, the county has 12 hospitals, representing 3.0 percent of the assessment area's total hospitals (ahd.tool.net/list.php3/mstate=ca). The vast majority (75.0 percent) of the hospitals are nonprofit, with the balance classified as county (16.7 percent), or Federal (8.3 percent) facilities. For those hospitals with reported data (27 hospitals), a total of 6,410 beds and 1,407,045 total patient days were recorded in 1999. The county ranked 11th in number of hospitals, comparable to its 11th place ranking in population.

Recreation and Tourism—Among the assessment area's 26 counties, San Francisco ranked fifth in the 1997 economic census in accommodations and food services, and fourth in arts, entertainment, and recreation (United States Census Bureau 1999b, 1999c). A total of 3,258 accommodation and food-services establishments, with $3,281,112,000 in receipts, was reported. Arts, entertainment, and recreation services involved 332 establishments, with receipts totaling $632,293,000.

Tourism is San Francisco's primary industry, with significant interests to recreationists and tourists. Fisherman's Wharf, Ghirardelli Square, Pier 39, Chinatown, cable cars, and the Golden Gate Bridge are some of the notable sites in this county (www.sfchamber.com). Based on visitation in 2000, the county has one of the top ten National Park facilities in national visitation, the San Francisco

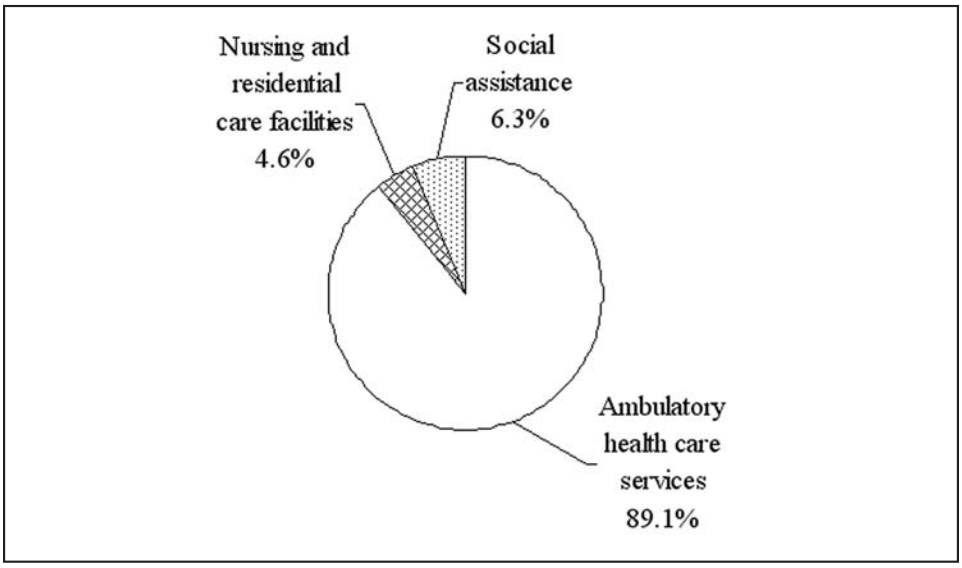


Figure 170—Health care and social assistance establishments, San Francisco County, 1997.

Source: United States Census Bureau 1999a

Maritime Museum (www.visitCalifornia.com). The Maritime Museum rests within the larger Maritime National Historic Park, that also has a fleet of historic vessels at Hyde Street Pier (www.nps.gov).

Environmental Indicators

Water Quality—San Francisco County crosses three watersheds: San Pablo Bay, San Francisco Bay, and Tomales-Drake Bays (www.epa.gov/surf3/surf98/county.html). (Watersheds frequently cross county boundaries. Therefore, some counties may include watersheds that are also located in other counties.) The Tomales-Drake Bays watershed was assigned a "5" by the EPA, indicating "more serious water quality problems but low vulnerability to pollution stressors." (According to the EPA's Index of Watershed Indicators procedures, a pollution stressor includes aquatic/wetland species at risk, toxic loads above limits, urban runoff potential, agricultural runoff potential, population change, hydrologic modification, estuarine pollution susceptibility, and atmospheric deposition.) The San Pablo Bay was assigned a "4," indicating "less serious water quality problems but high vulnerability to pollution stressors." The San Francisco Bay was assigned a "2," indicating a "better water quality but high vulnerability to pollution stressors."

Air Quality—San Francisco County has the 11th largest population of the 26 counties, paired with a much lower standing in emissions in various categories *(table 120)*. San Francisco County is 22nd highest in total organic gases emissions, 21st in reactive organic gases emissions, and 15th in carbon monoxide emissions. The majority of emissions are projected for marginal decreases dependent upon emission type. Particulates are expected to increase slightly, primarily from area-wide sources, according to the California Air Resources Board (1999).

Table 120—*1996 estimated and 2010 forecasted annual average emissions, San Francisco County (cells do not add to column totals due to rounding error).*

Year	Emission category	Emission type[1]						
		TOG	ROG	CO	NOx	SOx	PM	PM10
1996	Stationary	17	10	2	6	0	1	1
	Area-Wide	14	11	19	3	0	13	7
	Mobile	26	23	220	33	4	1	1
	Natural	-	-	-	-	-	-	-
	Total	56	43	240	41	4	15	9
2010	Stationary	18	10	2	5	0	1	1
	Area-Wide	12	9	14	2	0	14	8
	Mobile	10	9	110	21	4	1	1
	Natural	-	-	-	-	-	-	-
	Total	40	28	130	29	5	16	10

Source: California Air Resources Board 1999

[1] TOG: total organic gases; ROG: reactive organic gases; CO: carbon monoxide; NOx: nitrogen oxides; SOx: sulfur oxides; PM: particulate matter; PM10: particulate matter less than or equal to 10 microns (*appendix D*).

Implications

San Francisco continues to be a desirable place to work, live, and visit. This is evident in the high cost of housing and the issuance of nearly 2,000 permits for new housing units (mostly multi-family) between January 1996 and July 1997 (Association of Bay Area Governments 1997). Despite an improved economy post-

recession, the long-term issues of affordable housing and transportation must be addressed if San Francisco is to remain a job center (Association of Bay Area Governments 1999).

San Francisco is unique in many dimensions. It has the highest median age of any Bay Area county, it is the most ethnically diverse county in the nation, it has the most diverse modes of transportation used, and the county has no unincorporated areas. The lack of unincorporated area means there is no room for outward expansion. With the current housing crisis in the city, this has meant that redevelopment must occur within the city to accommodate future growth. As a result of the burgeoning economy, the areas south of Market Street and along Van Ness Avenue have become ripe for economic revitalization and new housing starts (Association of Bay Area Governments 1999).

Even though Hispanic immigration is shaping the rest of California, it is Asian immigration, and Chinese immigration in particular (Curtius 1999), that is most significant in San Francisco. By 2020, DOF predicts that Asians will be the largest ethnic group within the county. It is not clear yet how the dominance of Asians in the city will begin to change city governance, but attention is being given to the Chinese community and its increasing political power in the city (Curtius 1999).

San Francisco County is the only county in the assessment for which there is a projected decrease in population by both the U.S. Census and ABAG. Decentralization of people and jobs means that San Francisco will face increasing economic competition from other Bay Area counties, Alameda and Contra Costa in particular. People may continue to commute farther distances into outlying counties in search of affordable housing. As a result, natural resource implications for San Francisco are strongly tied to surrounding Bay Area counties. Preserving open space and wildlife habitat may not apply as strongly to San Francisco County. However, its built-out condition has created natural resource concerns in adjacent counties as urban sprawl spreads east, north, and south in the region.

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San Mateo County

- The San Francisco International Airport is the county's largest employer.
- ABAG expects the county will add 71,500 jobs between 2000 and 2020.
- The county is known for its scarcity of developable land.

History

Mounds of shells found around the Bay show evidence of settlement more than 3,000 to 4,000 years old (Stanger 1963). However, the European settlement of the area came much later. In 1769, a Spanish expedition under Captain Gaspar de Portolá set out to search for the Monterey harbor. They failed to recognize the Monterey harbor and continued north until they encountered the San Francisco Bay. They were so disheartened at not finding the Monterey harbor that they failed to recognize the significance of their discovery (San Mateo County Historic Resources Advisory Board 1983).

The movement to found settlements in northern California was defensive, prompted by the activities of England and Russia in the Pacific Ocean (Stanger 1963). Portolá's task was to supervise the founding of missions with fortified posts (presidios) to protect them. In 1776, the mission at San Francisco and the presidio were established (San Mateo County Historic Resources Advisory Board 1983).

With the establishment of seven missions in the area, Indians were used as laborers and were some of the first native inhabitants to suffer the ill effects of colonization (Stanger 1963).

The site of the San Francisco mission and presidio was chosen by Colonel Juan Bautista de Anza to protect the harbor entrance, but the land there was poor for farming. The farming to support the mission actually had to be done 15 miles to the south where there was less fog, more fresh water, and warmer weather (San Mateo County Historic Resources Advisory Board 1983; Stanger 1963). The territory of the mission extended all the way to the south boundary of San Mateo County (*fig. 171*); beyond this was the domain of the Santa Clara Mission.

By 1810 Spanish California, including the Peninsula, had become a cattle kingdom. Cattle hides were a vital export. Dairy ranching did not develop during Spanish times, but later was an important economic activity on the Peninsula with the arrival of American settlers (Stanger 1963).

In 1835, the mission disbanded and a land-granting process began that placed all of the Peninsula's best land into private hands (Stanger 1963). With the coming of the Gold Rush in 1849, early American inhabitants of San Mateo County saw an opportunity to go into the lumbering business. This business led to the establishment of Redwood City. Other industries of importance in the late 1800s included farming and the production of cement and salt. In 1856, San Mateo County was formed from San Francisco County. By 1863, railroad tracks were being laid, and by 1864 a line was completed from San Francisco to San Jose. Lumber and grain replaced hides and tallow as the chief exports. The building of the railroad through San Mateo County led to its gradual settlement by former San Francisco residents, many of whom first built summer homes on the peninsula and later, permanent residences and estates (Hynding 1982).

Most of the immigrants arriving in San Mateo County in the latter part of the 19th century were from Italy, Ireland, Portugal, and China (Stanger 1963). The Irish had been in the State since the Gold Rush and many were well established in the county by the 1860s. After 1880, the heaviest immigration was from Italy and Portugal. Federal laws curtailing Chinese immigration opened up jobs to Italians and Portuguese who worked as farm laborers in the fields. Before 1880, Chinese had done much of the hard physical labor in the county.

Figure 171—San Mateo County (shaded area) is south of San Francisco.

Source: 50 Individual States—Counties 1995

It was the earthquake of 1906 that sped the development of the Peninsula as people fled the city for "the country" (Hynding 1982). The flood of people ushered San Mateo County into a new era, that of the suburban bedroom town. One serious attempt was made before World War I to create a regional urban authority, which would oversee growth (Stanger 1963). The idea was to consolidate the Bay Area in a greater San Francisco, similar to New York's borough system. When voting on the regional authority, only San Mateo and Marin Counties supported the regional proposal.

World War I brought new industry to the county in the form of shipbuilding and its supporting industries (Hynding 1982). In San Mateo County, the dawn of the automobile age coincided with the advent of aviation and the blossoming of the motion picture industry. Communities in north county grew faster than cities in the south because of their proximity to San Francisco. The 1950s brought continued growth to San Mateo County with more than 20,000 people a year and four new cities (Stanger 1963). By the 1950s, heavy industry was yielding to clerical, maintenance, and service occupations. San Mateo County was one of the

birthplaces of the electronics industry. New firms were drawn to the Peninsula because it was a major transportation crossroads of the Pacific Coast. A major factor in decisions to locate in San Mateo County was the San Francisco Airport, which had been enlarged in 1954 and again in 1963 (Hynding 1982). From the early 1950s onward, one of the county's biggest employers was the airline industry. Because of its proximity to San Francisco, and to air, shipping and rail terminals, San Mateo became the first Bay Area county where the industrial park concept took hold on a large scale (Hynding 1982). After the 1960s, the scarcity of prime land drove real estate prices out of reach for most prospective homebuyers. Newcomers included both affluent immigrants who came in the 1970s and poor Hispanic and Black residents.

San Mateo County Today

Historically, the heaviest concentration of people has been in the north Peninsula. The mid-Peninsula has fewer people and less industry and is mostly composed of bedroom communities inhabited by white-collar professionals. The south Peninsula is composed mainly of exclusive suburbs with comparatively smaller populations spread over rolling countryside. Hundreds of expensive suburban homes have been carved out of the old estates of the area. The number of commuters to San Francisco has declined, but the number commuting to Santa Clara and other counties has increased.

Sociodemographic Characteristics

Projected Population—DOF and ABAG calculated population projections for San Mateo County *(table 121)*. An increasing population is expected through the forecast period. The DOF and ABAG projections vary by 9,961 persons in 2000. As the projections are calculated farther into the future, the gap between DOF and ABAG numbers widens to 45,706 by 2020. Even though there are differences between the population projections for various years, each agency predicts the county to grow by at least 72,700 people between 2000 and 2020. Thus, it could be said that DOF and ABAG are in general agreement about the rate of growth that will occur in San Mateo County through the forecast period.

Table 121—*Population projections, San Mateo County, 1990-2040.*

Source	1990	1995	2000	2005	2010	2015	2020	2030	2040
U.S. Census	649,623[1]	-	707,161	-	-	-	-	-	-
DOF	651,401[2]	-	747,061	-	815,532	-	855,506	907,423	953,089
ABAG	649,623	687,500	737,100	767,100	779,700	795,700	809,800	-	-

Source: United States Census Bureau 1990a and 2000, State of California Department of Finance 1998, Association of Bay Area Governments 1999

[1] Data from April 1.

[2] Data from July 1.

Ethnic and Racial Diversity—In 1990, San Mateo County's population was predominantly White (*table 122*). By 2000, Whites were no longer the majority in the county although they were still the largest ethnic group followed by Hispanics and Asians. The Black and American Indian proportions of the population decreased from 1990 to 2000.

Table 122—*1990 and 2000 population, San Mateo County.*

	1990	2000
	Percent	
Non-Hispanic White	60.4	49.8
Hispanic all races	17.7	21.9
Non-Hispanic Black	5.2	3.4
Non-Hispanic Asian	16.3	21.1
Non-Hispanic American Indian	0.4	0.2
Non-Hispanic other	0.2	0.3
Non-Hispanic two or more races	N/A	3.3

Source: United States Census Bureau 1990a, 2000

The largest settlement of Blacks continues to be in East Palo Alto. The Spanish-speaking population is centered in the north county and is an extension of San Francisco's large Latino community in the Mission District.

In 1990, 25.4 percent of San Mateo County's population was foreign-born. Slightly less than one-third (32.1 percent) of residents age 5 and older spoke a language other than English at home. Of those, a majority (57.6 percent) spoke a language other than English or Spanish, though 42.4 percent spoke Spanish (United States Census Bureau 1990b).

The majority of LEP students in San Mateo County public schools speak Spanish, mirroring the languages spoken at home. The remaining 26.5 percent speak Pilipino, Cantonese, Mandarin, Arabic, Korean, or "other languages" (*fig. 172*). (Other languages include Vietnamese, Hmong, Khmer, Armenian, Lao, Russian, Punjabi, Mien, and Farsi.) In 1997-98, 21.5 percent of San Mateo County's public school students were LEP.

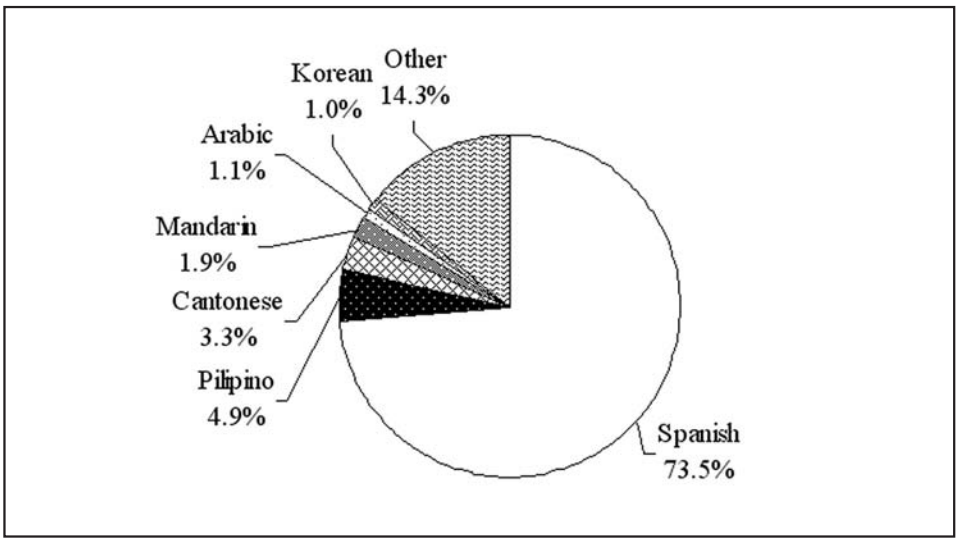
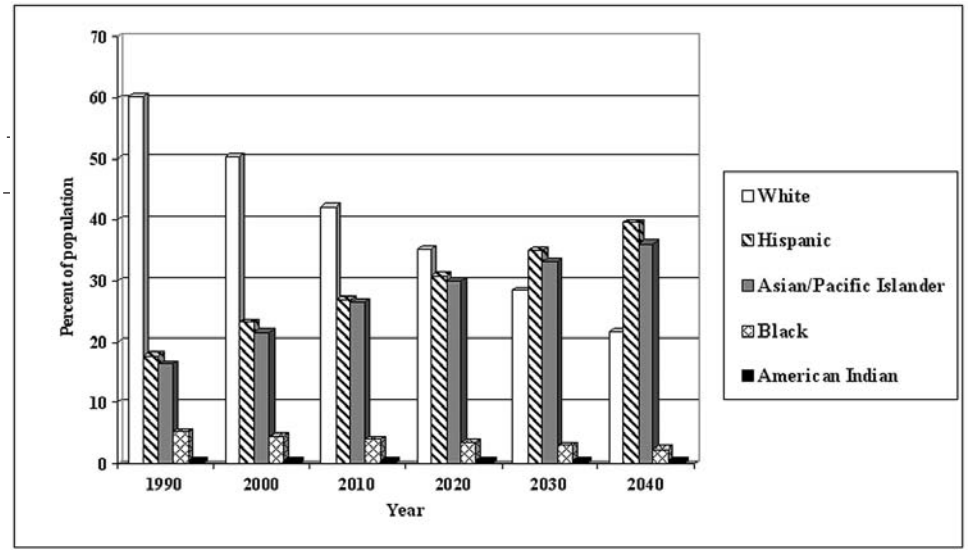


Figure 172—Limited-English-Proficient (LEP) students in San Mateo County public school districts, by language, 1997-1998.

Source: California Department of Education 1998b

Projected Ethnic and Racial Diversity—Beyond increases in overall population, changes in ethnic and racial diversity are expected. Whites are expected to decrease as a proportion of the total population, while Hispanics and Asians are expected to increase as proportions of the total population (*fig. 173*).

Figure 173—Racial and ethnic diversity trends for San Mateo County.



Source: State of California Department of Finance 1998

An examination of the cumulative percent change for each racial/ethnic group between 1990 and 2040 further clarifies this pattern (*table 123*). The White population shows approximately a 39 percent projected decrease in percent of population, while Hispanics and Asians each increase approximately 20 percent. Blacks and American Indians are projected for little or no change in proportion of the population over the forecast period.

Table 123—*Percent race/ethnicity and percent change in San Mateo County, 1990-2040.*

Racial/ethnic group	1990	2000	2010	2020	2030	2040	Cumulative percent change
	Year						
White	60.27 -	50.45 (-9.82)	42.18 (-8.27)	35.25 (-6.94)	28.42 (-6.83)	21.61 (-6.81)	-38.66
Hispanic	17.77 -	23.09 (5.32)	26.96 (3.87)	30.86 (3.90)	35.05 (4.19)	39.52 (4.47)	21.75
Asian/Pacific Islander	16.38 -	21.53 (5.15)	26.49 (4.96)	29.96 (3.47)	33.22 (3.26)	36.15 (2.93)	19.78
Black	5.22 -	4.50 (-0.73)	3.93 (-0.56)	3.51 (-0.42)	2.91 (-0.59)	2.35 (-0.56)	-2.87
American Indian	0.36 -	0.43 (0.07)	0.44 (0.00)	0.43 (-0.01)	0.40 (-0.03)	0.36 (-0.04)	0.00

Source: State of California Department of Finance 1998

Changes in the area population's age distribution are also expected across the forecast period. The overall median age for the county is expected to increase, from 34 to 39 years. The Black population is expected to have the steepest increase in median age (from 30 to 49 years), followed by Whites (from 38.5 to 52.5) and American Indians (from 32 to 55) (*fig. 174*). Asians and Hispanics are also projected for increases in median age, though to lesser degrees (31 to 39.5 and 25.5 to 30, respectively).

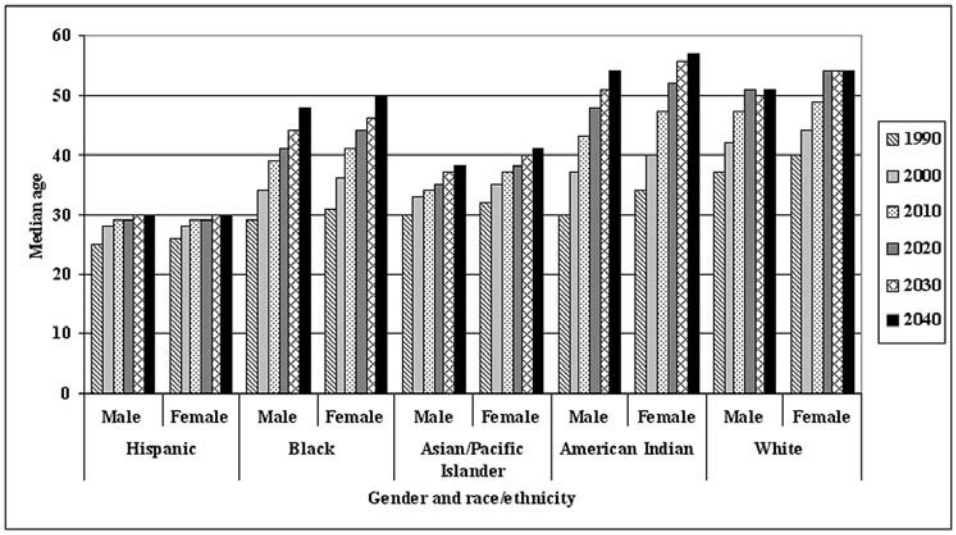


Figure 174—Median age by gender and race/ethnicity, San Mateo County, 1990-2040.

Source: State of California Department of Finance 1998

Development and Real Estate

Building trends in San Mateo County from 1987 to 1998 reveal some chaotic patterns, particularly in incorporated areas (*fig. 175*). Although the majority of construction occurred in incorporated areas, residential and nonresidential construction represented divergent trends in the 1980s. Until 1989, residential construction in incorporated areas was on the rise, but with the recession, it dropped dramatically. Nonresidential construction in incorporated areas was already on a fast decline in the late 1980s and it continued to drop until 1993. Construction in unincorporated areas remained at a low level throughout 1987 to 1998.

In 1990, San Mateo County had 241,914 households and 251,782 housing units. The vast majority (96.1 percent) of housing units were occupied; few (3.9 percent) were vacant (United States Census Bureau 1990a). Of the occupied housing units, a majority (60.2 percent) were owner-occupied and 39.8 percent were renter-occupied (United States Census Bureau 1990a). The median value of owner-occupied housing units in 1990 was $343,900, and the median rent was $769 per month.

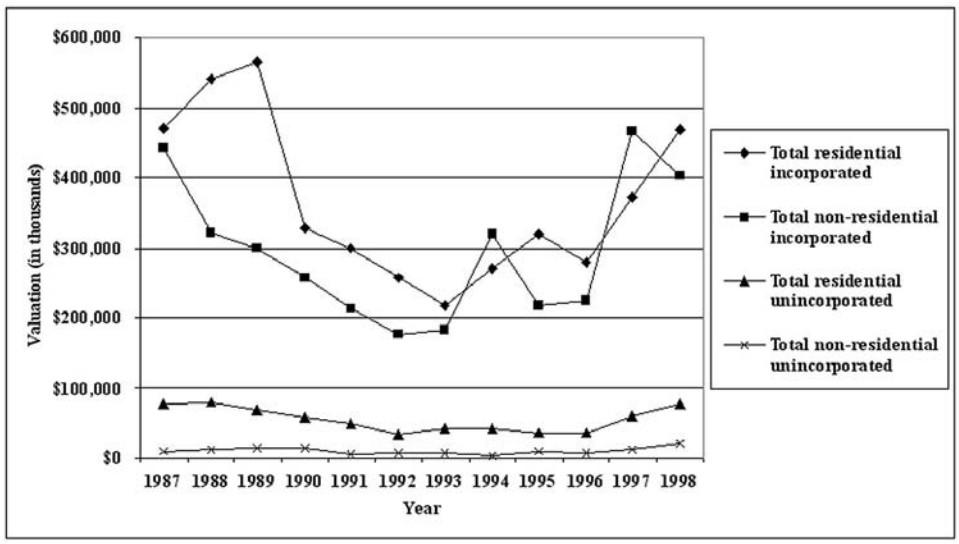


Figure 175—Building trends, San Mateo County, in 1998 dollars, 1987-1998.

Source: Construction Industry Research Board 1988-1999

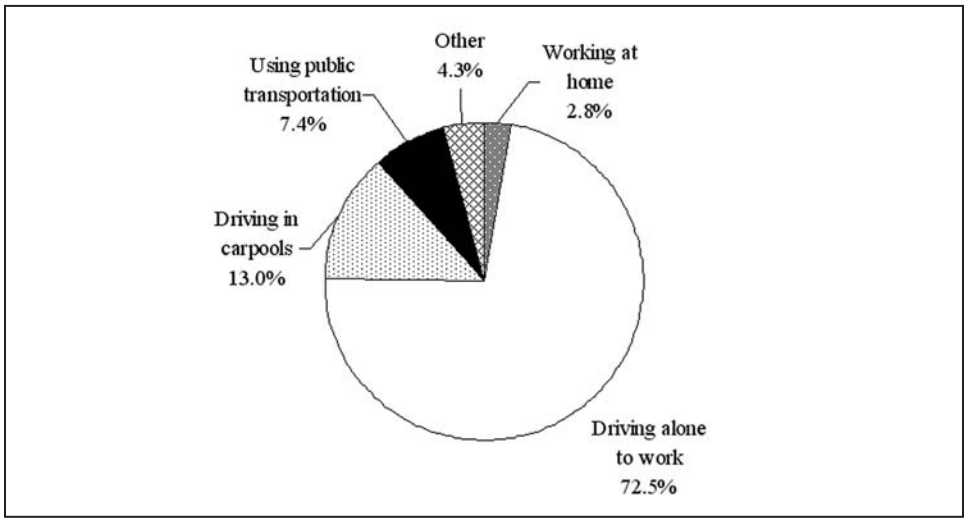
Quality of Life Indicators

Transportation, Commuting, and Employment—In 1990, there were 346,559 workers age 16 and older in San Mateo County, and an average of 1.9 vehicles per household. Almost 42 percent of San Mateo County residents worked outside the county. The majority (72.5 percent) of workers drove to work alone, although some carpooled to work (13 percent) or used public transportation (7.4 percent) (*fig. 176*). The average travel time to work was 24 minutes, which was shorter than the average commute of 26.5 minutes for seven of the Bay Area counties.

Land in farms, the average size of farms, and the number of full time farms decreased in the county from 1992 to 1997. Despite these decreases, the market value of agricultural products sold increased to $138,669,000 during the same period, an increase of 39 percent (United States Department of Agriculture 1997). The top five commodities are nursery and greenhouse crops, vegetables, cattle and calves, fruits and berries, and horses and ponies (United States Department of Agriculture 1997).

Most of the job growth in the county since the 1980s has been in the services sector (Association of Bay Area Governments 1999). The county weathered the recession of the 1990s reasonably well because the county's largest employer—the San Francisco International Airport—was minimally affected by the economic slowdown. Even though San Mateo County is often thought of as a collection of bedroom communities, ABAG expects the county will add 71,500 jobs between 2000 and 2020, mostly in services and transportation (Association of Bay Area Governments 1999).

Figure 176—Commuting patterns, workers 16 and older, San Mateo County, 1990.



Source: United States Census Bureau 1990b

Education—San Mateo County serves the largest number of students in its elementary schools (*table 124*). The county also has more elementary schools (112) than middle and high schools (28 and 18, respectively). Average enrollment per school is greatest at the high school level, which is the pattern across the assessment area and all counties. San Mateo County serves 1.8 percent of the assessment area's school enrollments. County schools have the 14th highest enrollment overall, and they are 22nd in highest average enrollment per school. Students in 2nd through 11th grade were tested using the Stanford 9 at 154 of the county schools. San Mateo County's ranking in academic performance for 1999 was a mean of 4.55 out of 10 (based on the similarity index, www.cde.ca.gov), indicating a slightly lower than average performance than similar schools. Although 31.8 and 24.6 percent of schools in the county performed well below or below average compared to similar schools, 12.3 percent were well above average and 16.2 percent were above average.

Table 124—*Enrollment and number of schools, San Mateo County, 1998-1999.*

Type of school	Total enrollment	Percent of total enrollment	Number of schools	Average enrollment/school
Elementary	48,446	53.3	112	433
Middle/Junior High	17,340	19.1	28	619
High School	25,080	27.6	18	1,393
Total	90,866	100.0	158	-

Source: California Department of Education 1998a

Health Care—The largest number of health care establishments in the county deliver ambulatory health care services, followed by social assistance, and nursing and residential care (*fig. 177*). There are no hospitals in the county as reported by the U.S. Census Bureau. However, the county has seven hospitals, representing 1.8 percent of the assessment area's total hospitals (ahd.tool.net/list.php3/mstate=ca). The majority (71.4 percent) of the hospitals are nonprofit, with the balance classified as county (14.3 percent), or for-profit (14.3 percent) facilities. For those hospitals with reported data (seven hospitals), a total of 1,597 beds and 364,022 total patient days were recorded in 1999. The county ranked 17th in number of hospitals, comparable to its 13th place ranking in population.

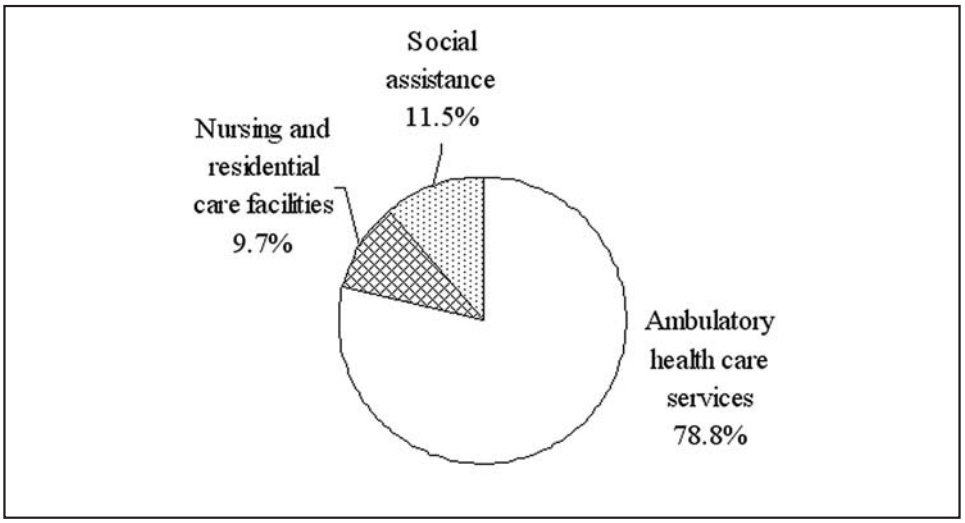


Figure 177—Health care and social assistance establishments, San Mateo County, 1997.

Source: United States Census Bureau 1999a

Recreation and Tourism—Among the assessment area's 26 counties, San Mateo ranked 11th in the 1997 economic census in accommodations and food services, and 12th in arts, entertainment, and recreation (United States Census Bureau 1999b, 1999c). A total of 1,495 accommodation and food-services establishments, with $1,378,976,000 in receipts, was reported. Arts, entertainment, and recreation services involved 180 establishments, with receipts totaling $179,307,000.

San Mateo County offers sites of recreational interest, including a number of beaches, such as that at Half Moon Bay. Portolá and Butano State Parks offer camping and recreational facilities (Thomas Bros. Maps 1998).

Environmental Indicators

Water Quality—San Mateo County crosses four watersheds: Coyote, San Francisco Bay, Tomales-Drake Bays, and San Lorenzo-Soquel (www.epa.gov/surf3/surf98/county.html). (Watersheds frequently cross county boundaries. Therefore, some counties may include watersheds that are also located in other

counties.) The Coyote and Tomales-Drake Bays watersheds were assigned a "5" by the EPA, indicating "more serious water quality problems but low vulnerability to pollution stressors." (According to the EPA's Index of Watershed Indicators procedures, a pollution stressor includes aquatic/wetland species at risk, toxic loads above limits, urban runoff potential, agricultural runoff potential, population change, hydrologic modification, estuarine pollution susceptibility, and atmospheric deposition.) The San Lorenzo-Soquel watershed was assigned a "3," indicating "less serious water quality problems and low vulnerability to pollution stressors." The San Francisco Bay was assigned a "2," indicating a "better water quality but high vulnerability to pollution stressors."

Air Quality—San Mateo County has the 13th largest population of the 26 counties, paired with a similar standing in emissions in various categories (*table 125*). San Mateo County is 18th highest in total organic gases emissions, 14th in reactive organic gases emissions, and 13th in carbon monoxide emissions. The majority of emissions are projected for marginal decreases dependent upon emission type. Particulates are expected to increase slightly, according to the California Air Resources Board (1999).

Table 125—*1996 estimated and 2010 forecasted annual average emissions, San Mateo County (cells do not add to column totals due to rounding error).*

Year	Emission category	Emission type[1]						
		TOG	ROG	CO	NOx	SOx	PM	PM10
1996	Stationary	54	8	1	2	0	2	1
	Area-Wide	15	11	29	2	0	21	12
	Mobile	39	35	340	57	1	2	1
	Natural	0	0	0	0	-	0	0
	Total	110	54	370	61	1	25	14
2010	Stationary	57	8	1	2	0	2	1
	Area-Wide	14	9	22	2	0	22	12
	Mobile	16	15	170	38	1	2	1
	Natural	-	-	0	-	-	-	-
	Total	88	31	190	42	1	26	15

Source: California Air Resources Board 1999

[1] TOG: total organic gases; ROG: reactive organic gases; CO: carbon monoxide; NOx: nitrogen oxides; SOx: sulfur oxides; PM: particulate matter; PM10: particulate matter less than or equal to 10 microns (*appendix D*).

Implications

San Mateo County is notable for its scarcity of developable land. It also has the second lowest vacancy rate (3.9 percent) of all the Bay Area counties. San Mateo's location just south of San Francisco contributes to the demand for housing in the county. ABAG predicts that San Mateo, Redwood City, and Daly City will experience the most job growth through 2020 (Association of Bay Area Governments 1999). The ethnic diversity of the population is projected to increase with the growth of both the Hispanic and Asian populations. Although job growth is projected throughout the forecast period, the majority of new jobs will be in the services sector.

The West Bay, which includes Marin, San Francisco, and San Mateo Counties, shows less change in both the short- and long-term (Association of Bay Area Governments 1997). In San Mateo, land-use changes are limited by a combination of existing dense development in the eastern corridor and policies that control growth near the coast.

San Mateo has historically been a bedroom community to San Francisco. In addition, commuters to Santa Clara County have increased in recent years. Even

so, with the growth in the high-tech industry and the San Francisco International Airport complex, there is a potential for the county to gain some economic independence from San Francisco and Santa Clara Counties. As is the case with the other bedroom counties in the Bay Area (Marin, Contra Costa and Solano), San Mateo County's fate is linked to these job-rich counties. The implications for natural resources are similar region-wide. With growth occurring farther from traditional job centers, urban sprawl increases, commuting increases, air and water quality worsen, and open space and wildlife habitat decrease.

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Santa Clara County

- The county is the nation's center for high-tech innovation.
- It is the largest Bay Area county with a 2000 population of 1.6 million residents.
- Since the 1950s, the county has been one of the fastest growing metropolitan areas in the country.
- Job growth continues to be paired with a severe shortage of affordable housing.

History

The discovery of the Santa Clara Valley was made by Captain Juan Bautista de Anza who led the first colonists into the region in 1776 (Jacobson 1984). Costanoan Indians were not farmers, but fishermen and hunters. Under the padres, they became unpaid laborers in an agricultural economy. In 1821, California was freed of Spanish rule and claimed as a Mexican colony. The Secularization Act of 1833 meant that mission holdings were released to private use. Most grants were made to soldiers or wealthy landowners. Forty-one land grants were made by the Mexican government in Santa Clara County (*fig. 178*). Of the thousand or so Indians living within the confines of the Mission Santa Clara, only seven received grants of land (Jacobson 1984). The others became rancho workers. From 1822 to 1846, the Spanish-Mexican landowners (Californios) built an economy based on hides and tallow, and each ranchero planted crops for the needs of his rancho. Cash crops did not arise until the Gold Rush when rancheros began to plant wheat to feed the miners.

In 1925, 125,000 acres of orchards and vineyards existed between the Diablo Mountain Range on the eastern edge of the Santa Clara Valley and the Santa Cruz Mountains on the western side (Jacobson 1984). The area produced close to 50 percent of the world's prunes, apricots, and cherries (Sachs 1999). By the 1850s, grain production (wheat, barley, oats) replaced hides and tallow as the main exports from the area (Jacobson 1984). At the peak of agricultural operations in the 1940s, the world's largest near-continuous orchard—8 million flowering trees — was located on 132,000 acres of the Santa Clara Valley (Sachs 1999).

The Chinese, Japanese, and Blacks all played roles in the history of the county. After working on the transcontinental railroad, many Chinese came to Santa Clara County where they built wineries, roads, and cleared underbrush for planting. When the numbers of Chinese decreased because of restrictive legislation, the

Japanese filled the demand for cheap agricultural labor. The Japanese started successful rice growing operations in the Sacramento Valley and were leaders in such crops as beets, celery, berries, and grapes (Jacobson 1984). Initially, the Japanese could own land, but when the Alien Land Law of 1913 was passed, it prevented Japanese from acquiring land and from leasing it for more than 3 years (Jacobson 1984). Around the turn of the century, the Black population in Santa Clara County was small, but included settlers from distant states, such as Missouri, Kentucky, Georgia, Arkansas, and Virginia. During the Gold Rush, Blacks were employed as miners in the fields. However, because San Jose was an agricultural town, Blacks were employed mostly as farmers, laborers, or as service people. The end of World War II brought the "Great Migration," when more than half a million Blacks left the south to settle in the north. Despite discrimination in the north, few returned to the south (Garden City Women's Club, Inc. 1978).

In only 30 years, from the 1950s to the 1980s, the county was transformed from an agricultural area to a high-technology region. Jacobson (1984) attributed the decline of farming to several factors in Santa Clara County: (1) farming was hard work that did not carry prestige in society, (2) passage of land to heirs resulted

Figure 178—Santa Clara County is southeast of San Francisco (shaded area).

Source: 50 Individual States—Counties 1995

in parcels too small for viable farming operations, (3) the increased costs of labor, fuel, water, fertilizer, equipment, and taxes made farming less profitable, (4) the departure of farming services made repairs more expensive and difficult to obtain, and (5) many farmers' land became more valuable as real estate than as farmland. World War II helped speed urbanization because of the number of military personnel who came to the West Coast. After the war, Santa Clara County led the State with an increase in population at a rate double the growth of California as a whole (Jacobson 1984). In the process, the county became a center for high-technology research, development, and production. However, development in the county was uneven. The northern part of the county was more successful in attracting lucrative firms, leaving the southern portion to provide housing (Jacobson 1984).

As described in Sachs (1999), the electronics industry had military roots. In 1933, the Federal Government established a military base at Moffett Field. In 1940, Ames Research Center was established in Mountain View to supply the military with basic research in aerodynamics. Both Stanford University and University of California, Berkeley were instrumental in attracting and providing resources to conduct research that led to the rise of the electronics industry. For example, Dr. Frederick Terman came to Stanford University in 1926 and established the Stanford Research Institute (now SRI International), where two of his students developed audio oscillators, in which Terman saw commercial potential. Terman convinced the university to create the Stanford Industrial Park, which was then used to entice the semiconductor giants Lockheed, Sylvania, General Electric, IBM, and Westinghouse to the valley in the 1940s and 1950s, in addition to homegrown companies like Hewlett-Packard and Shockley Transistor. Silicon Valley was host to a number of technological discoveries that enabled the exploration of the moon, the development of microprocessors, and genetic research.

Santa Clara County Today

Santa Clara County's 2000 population of more than 1.6 million residents makes it the largest of the nine Bay Area counties and it constitutes one-fourth of the Bay Area's total population (County of Santa Clara 1994). The north county is heavily urbanized, and the south county is predominantly rural.

Silicon Valley, although host to the world's major high-tech companies, is also home to 29 Superfund sites (Hayhurst 1997). The production of the semiconductor chip uses many hazardous chemicals. The dangers became known when contaminated drinking water wells were discovered in San Jose in 1982 (Hayhurst 1997) and when production workers, the majority Filipino or Mexican females, started having high levels of employee illness (Sachs 1999).

Rapid economic growth has created a high standard of living, but this has created many challenges for the county, such as overwhelming population growth, a lack of affordable housing, the nation's third worst traffic after Los Angeles and Washington, DC (Fuller 1997), overcrowded schools, and an inefficient public transportation system. Some of the challenges facing the county result from a jobs-housing imbalance. Santa Clara County is jobs-rich and housing-poor. As outlined in the Santa Clara County General Plan (County of Santa Clara 1994), some impacts are increased travel and commute distances that cause increased traffic, increased automobile dependency, increased housing affordability problems, increased amounts of automobile emissions affecting air quality, overburdened urban services and facilities, and financial strains upon those cities which have a preponderance of housing in relation to employment land uses.

The county of Santa Clara recognizes that ever-expanding development is not the best way to solve the housing problem. The county promotes a "compact development approach" and encourages cities to provide housing rather than proposing developments in unincorporated land or open space. Efforts to preserve open space in the county are occurring. As one example, the Nature Conservancy and the Packard Foundation are purchasing conservation easements and land with

the goal of preserving unique California landscapes (Noel 2000). Other efforts to purchase open space are on-going.

Another way to address the housing problem is to increase the density of development. Just by increasing the number of homes built per acre from the current projected average of 7 to 9 per vacant acre and from 12 to 25 homes per reuse acre (underutilized land targeted for redevelopment), the region could meet 75 to 99 percent of demand (Greenbelt Alliance and Silicon Valley Manufacturing Group 1999).

Sociodemographic Characteristics

Projected Population—Since the 1950s, Santa Clara County has been one of the fastest growing metropolitan areas in the country. Population more than doubled from 290,000 in 1950 to more than 640,000 in 1960, and nearly doubled again in 1970 to 1,065,500 (County of Santa Clara 1994). It is predicted that growth in the county will continue, but at slower rates than in the past. By 2010, the population of the county is projected to reach 1.9 million people. Most of the growth is expected to occur in San Jose and to a lesser extent, in the south county. The north and west valley cities are expected to experience relatively little population growth.

DOF and ABAG calculated population projections for Santa Clara County (*table 126*). An increasing population is expected through the forecast period, though the amount of that increase differs according to the source. DOF's projections are higher than ABAG's throughout the forecast period by as much as 180,050 people. This is explained by the use of different assumptions in calculating projections. ABAG collects information from local governments about anticipated developments and potential land use constraints (Association of Bay Area Governments 1999); DOF does not.

Table 126—*Population projections, Santa Clara County, 1990-2040.*

Source	1990	1995	2000	2005	2010	2015	2020	2030	2040
U.S. Census	1,497,577[1]	-	1,682,585	-	-	-	-	-	-
DOF	1,504,402[2]	-	1,763,252	-	2,021,417	-	2,196,750	2,400,564	2,595,253
ABAG	1,497,577	1,599,100	1,755,300	1,854,000	1,919,000	1,970,600	2,016,700	-	-

Source: United States Census Bureau 1990a and 2000, State of California Department of Finance 1998, Association of Bay Area Governments 1999

[1] Data from April 1.

[2] Data from July 1.

Ethnic and Racial Diversity—In 1990, Santa Clara County's population was predominantly White with Hispanics as the next largest ethnic group, followed by Asians (*table 127*). In 2000, Whites were no longer the majority although still the largest proportion of the population and Asians were the next largest ethnic group, followed by Hispanics.

Table 127—*1990 and 2000 population, Santa Clara County.*

	1990	2000
	----------Percent----------	
Non-Hispanic White	58.1	44.2
Hispanic all races	21.0	24.0
Non-Hispanic Black	3.5	2.6
Non-Hispanic Asian	16.8	25.7
Non-Hispanic American Indian	0.5	0.3
Non-Hispanic other	0.2	0.2
Non-Hispanic two or more races	N/A	3.0

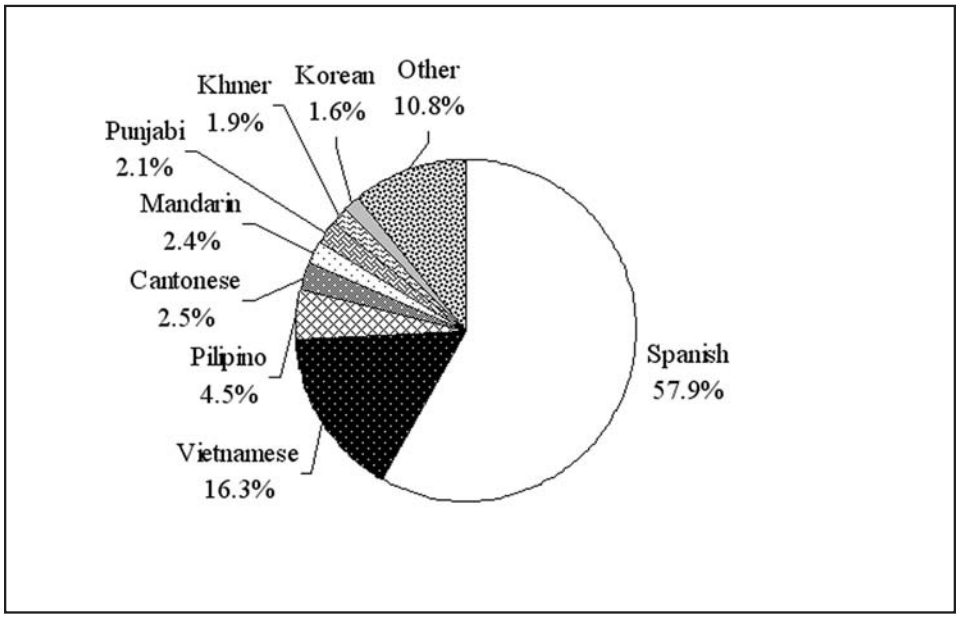
Source: United States Census Bureau 1990a, 2000

In 1990, 23.2 percent of Santa Clara County's population was foreign-born. Almost one-third (32.3 percent) of residents age 5 and older spoke a language other than English at home. Of those, 42.1 percent spoke Spanish and 57.9 percent a language other than English or Spanish (United States Census Bureau 1990b).

Linguistic diversity is also reflected within the schools in the region. The majority of LEP students in Santa Clara County public schools speak Spanish or Vietnamese—mirroring the languages spoken at home (*fig. 179*). In 1997-98, 22.2 percent of Santa Clara County's public school students were LEP.

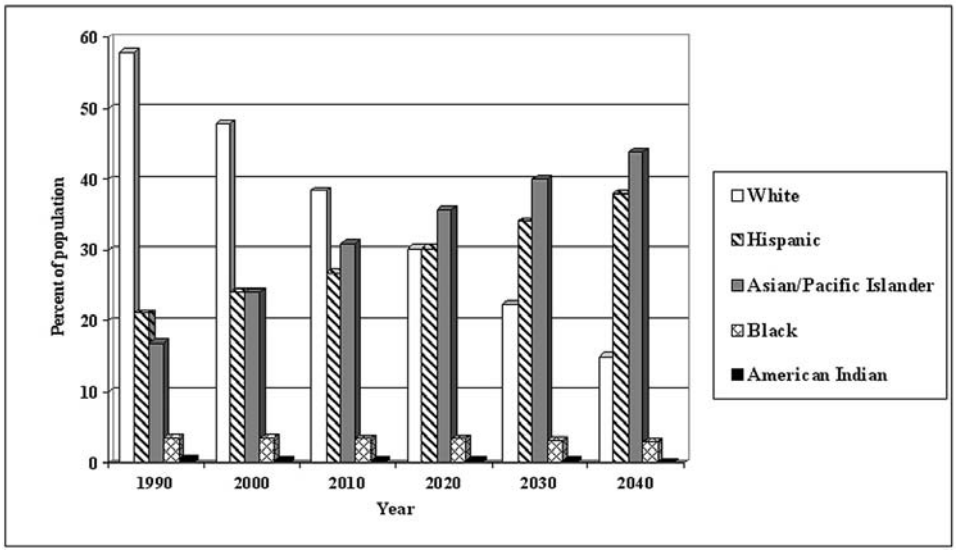
Projected Ethnic and Racial Diversity—In addition to the increase in overall population in Santa Clara County, a substantial decrease in Whites as a proportion of the population and an increase among Asians and Hispanics as proportions of the total population are projected *(fig. 180)*. Blacks and American Indians are expected to remain small and stable percentages of the population. Asians and Hispanics are projected to surpass Whites as a proportion of the population by 2020.

Figure 179—Limited-English-Proficient (LEP) students in Santa Clara County public school districts, by language, 1997-1998.



Source: California Department of Education 1998b

Figure 180—Racial and ethnic diversity trends for Santa Clara County.



Source: State of California Department of Finance 1998

The proportion of Whites is expected to decrease by approximately 43 percent through the forecast period, while Asians and Hispanics increase by approximately 27 and 17 percent, respectively. The Black and American Indian proportions of the population have projected decreases of less than 1 percent over the forecast period (*table 128*).

Along with projected changes in race and ethnicity, changes in the area population's age are projected. Projected median age for Santa Clara County residents varies by race/ethnicity and gender. Females are projected to have a higher median age in the American Indian and White populations, while males and females are projected have the same median ages in all other ethnic groups through the forecast period (*fig. 181*). Whites have the highest projected median age in Santa Clara County between 1990 and 2040 (from 34.5 to 59 years), followed by American Indians (from 30 to 53 years). The county's Black and Asian/Pacific Islander populations show less of a projected increase (from 28 to 41.5 and 29.5 to 37, respectively). Hispanics have the lowest projected median age, increasing from 25 to 29 years of age through the forecast period.

Table 128—*Percent race/ethnicity and percent change in Santa Clara County, 1990-2040.*

Racial/ethnic group	1990	2000	2010	2020	2030	2040	Cumulative percent change
	Year						
White	57.98 -	47.79 (-10.19)	38.43 (-9.36)	30.31 (-8.12)	22.45 (-7.86)	14.94 (-7.51)	-43.04
Hispanic	21.09 -	24.16 (3.06)	26.85 (2.69)	30.33 (3.48)	34.07 (3.74)	38.02 (3.95)	16.93
Asian/Pacific Islander	16.97 -	24.21 (7.24)	31.00 (6.79)	35.69 (4.68)	40.03 (4.34)	43.82 (3.79)	26.85
Black	3.51 -	3.55 (0.04)	3.45 (-0.10)	3.42 (-0.03)	3.23 (-0.19)	3.03 (-0.20)	-0.48
American Indian	0.44 -	0.29 (-0.15)	0.27 (-0.03)	0.25 (-0.02)	0.22 (-0.03)	0.19 (-0.03)	-0.26

Source: State of California Department of Finance 1998

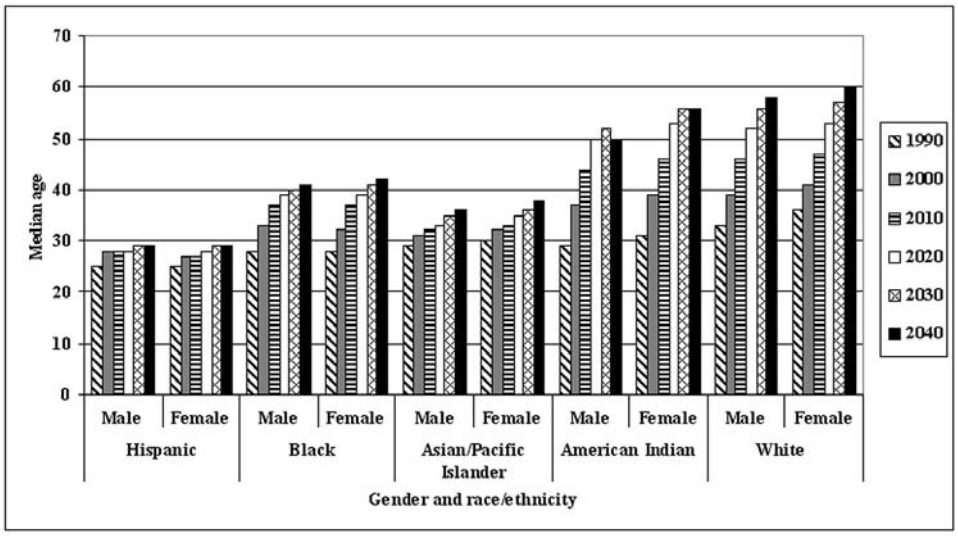


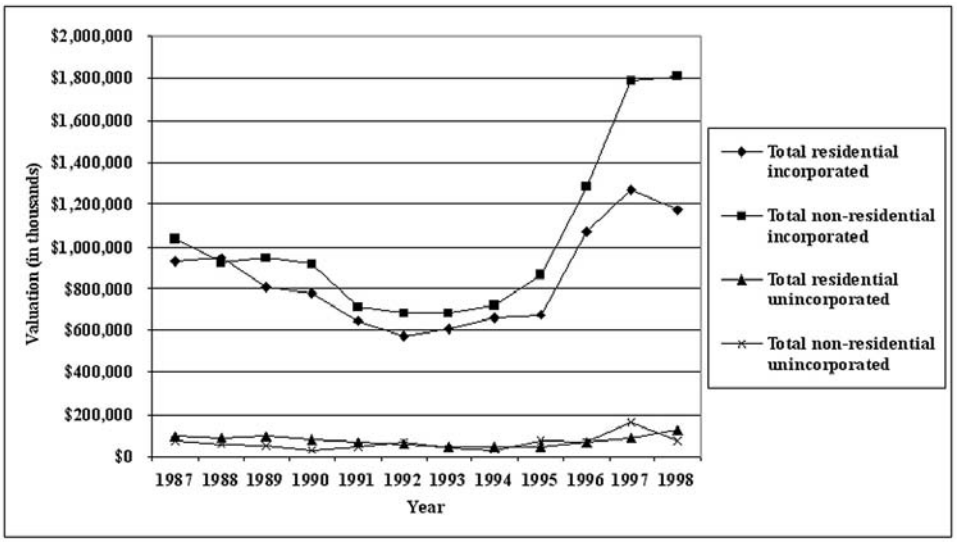
Figure 181—Median age by gender and race/ethnicity, Santa Clara County, 1990-2040.

Source: State of California Department of Finance 1998

Development and Real Estate

Building trends in Santa Clara County from 1987 to 1998 reveal that construction was on a gradual downward trend until 1995 (*fig. 182*). Non-residential construction in incorporated areas comprised the largest amount of building in the county and had the sharpest increase from 1995 to 1998. The next largest increase in building was residential development in incorporated areas. However, residential construction in incorporated areas dropped sharply after 1997. Both residential and nonresidential construction in unincorporated areas remained a small and stable proportion of total building in the county.

Figure 182—Building trends, Santa Clara County, in 1998 dollars, 1987-1998.



Source: Construction Industry Research Board 1988-1999

In 1990, Santa Clara County had 520,180 households and 540,240 housing units. The vast majority (96.3 percent) of housing units were occupied; few were vacant (3.7 percent, United States Census Bureau 1990a). Of the occupied housing units, the majority (59.1 percent) were owner-occupied, though 40.9 percent were renter-occupied (United States Census Bureau 1990a). The median value of owner-occupied housing units in 1990 was $289,400, and the median rent was $773 per month.

Quality of Life Indicators

Transportation, Commuting, and Employment—In 1990, there were 796,605 workers age 16 and older in Santa Clara County, and an average of two vehicles per household. Almost 11 percent of Santa Clara County residents worked outside the county. The majority (77.7 percent) of workers drove to work alone, although a few carpooled to work (12.3 percent) (*fig. 183*). Very few used public transportation. The average travel time to work was 23.3 minutes, which was slightly less than the average commute of 26.5 minutes for seven of the Bay Area counties.

Santa Clara County is no longer the agricultural producer it used to be. Land in farms decreased 7 percent from 1992 to 1997, but the market value of agricultural products sold increased 62 percent from $118,298 in 1992 to $191,355 in 1997 (United States Department of Agriculture 1997). The market value of agricultural products sold is quite small compared to other regions such as the Central Valley or Central Coast.

The county is a major employment center for the region, providing more than one-quarter of all jobs in the Bay Area. Santa Clara County is faced with a

growing mismatch between the skills needed by high-technology companies and the educational attainment of the local workforce (County of Santa Clara 1994). High-tech firms in Silicon Valley employ temporary employees in numbers three times the national average (Sachs 1999), many of whom are immigrants on the H-1B Visa program.

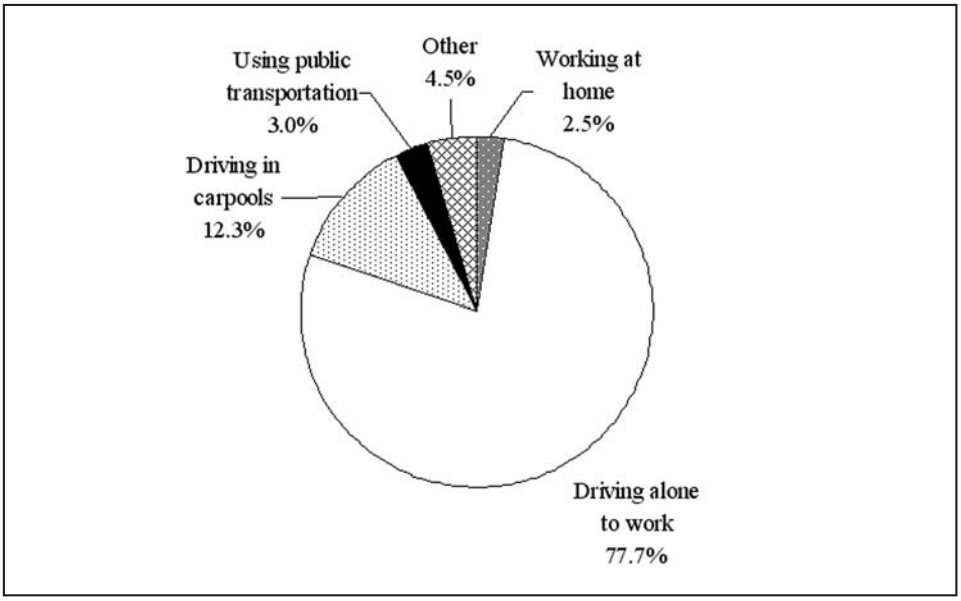


Figure 183—Commuting patterns, workers 16 and older, Santa Clara County, 1990.

Source: United States Census Bureau 1990b

Cost of Living/Expenditures—There is evidence that wealth created in the region is not trickling down. Since 1990, wage rates for the poorest 25 percent of the valley's workers have decreased by 14 percent (Sachs 1999). Although average household income between 1987 and 1997 rose from $85,741 to $101,010, the median household income remained constant: it was only the top half of income earners who got richer (Sachs 1999). Much of the region is becoming unaffordable for local working-class residents. Latinos make up 24 percent of Santa Clara County's population, but 50 percent of the county's working poor (Sachs 1999). Public sector employees are also priced out of the market. More than one-third (40 percent) of teachers in Silicon Valley leave their posts within the first 5 years (McDonald 1999).

Education—Santa Clara County serves the largest number of students in its elementary schools (*table 129*). The county also has more elementary schools (241) than middle and high schools (57 and 36, respectively). Average enrollment per school is greatest at the high school level, which is the pattern across the assessment area and all counties. Santa Clara County serves slightly fewer than 5 percent of the assessment area's school enrollments. County schools have the 6th highest enrollment overall and they are 10th in highest average enrollment per school. Students in 2nd through 11th grade were tested using the Stanford 9 at 328 of the county schools. Santa Clara County's ranking in academic performance for 1999 was a mean of 5.80 out of 10 (based on the similarity index, www.cde.ca.gov), indicating somewhat higher than average performance than similar schools. Although 21.7 and 15.2 percent of schools in the county performed well below or below average compared to similar schools, 29.2 percent were well above average and 14.9 percent were above average.

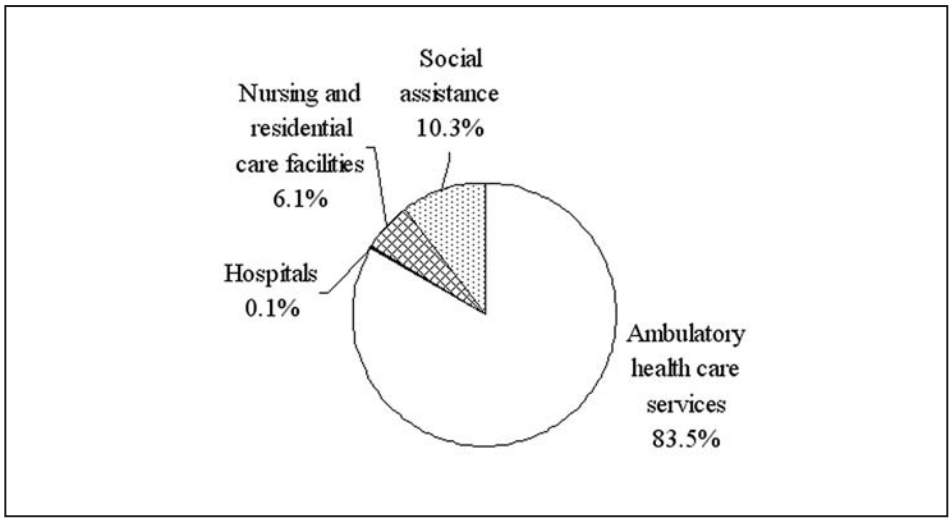
Table 129—*Enrollment and number of schools, Santa Clara County, 1998-1999.*

Type of school	Total enrollment	Percent of total enrollment	Number of schools	Average enrollment/ school
Elementary	131,310	53.1	241	545
Middle/Junior High	49,618	20.1	57	870
High School	66,320	26.8	36	1,842
Total	247,248	100.0	334	-

Source: California Department of Education 1998a

Health Care—The largest number of health care establishments in the county deliver ambulatory health care services, followed by social assistance, nursing and residential care, and hospital care (*fig. 184*). The county has 14 hospitals, representing 3.5 percent of the assessment area's total hospitals (ahd.tool.net/list.php3/mstate=ca). Half (50.0 percent) of the hospitals are nonprofit, with the balance classified as for-profit (28.6 percent), county (14.3 percent), or Federal (7.1 percent) facilities. For those hospitals with reported data (13 hospitals), a total of 3,628 beds and 50,640,220 total patient days were recorded in 1999. The county ranked seventh in number of hospitals, comparable to its fifth place ranking in population.

Figure 184—Health care and social assistance establishments, Santa Clara County, 1997.



Source: United States Census Bureau 1999a

Recreation and Tourism—Among the assessment area's 26 counties, Santa Clara ranked fourth in the 1997 economic census in accommodations and food services, and sixth in arts, entertainment, and recreation (United States Census Bureau 1999b, 1999c). A total of 3,495 accommodation and food-services establishments, with $2,590,673,000 in receipts, was reported. Arts, entertainment, and recreation services involved 284 establishments, with receipts totaling $425,144,000.

The county offers Paramount's Great America, with a 2000 attendance of 1,800,000 (www.visitcalifornia.com) and Gilroy's annual Garlic festival (www.gilroyvisitor.org). Shoreline is a 50-acre saltwater lake, offering sailing, windsurfing, and other water-based recreational interests. Henry Coe State Park offers camping and picnicking opportunities (Thomas Bros. Maps 1998).

Environmental Indicators

Water Quality—Santa Clara County crosses six watersheds: Panoche-San Luis Reservoir, Coyote, San Francisco Bay, Tomales-Drake Bays, San Lorenzo-Soquel, and Pajaro (www.epa.gov/surf3/surf98/county.html). (Watersheds frequently cross county boundaries. Therefore, some counties may include watersheds that are also located in other counties.) The Coyote, Tomales-Drake Bays and Pajaro watersheds were assigned a "5" by the EPA, indicating "more serious water quality problems but low vulnerability to pollution stressors." (According to the EPA's Index of Watershed Indicators procedures, a pollution stressor includes aquatic/wetland species at risk, toxic loads above limits, urban runoff potential, agricultural runoff potential, population change, hydrologic modification, estuarine pollution susceptibility, and atmospheric deposition.) The San Lorenzo-Soquel watershed was assigned a "3," indicating "less serious water quality problems and low vulnerability to pollution stressors." The San Francisco Bay watershed was assigned a "2," indicating a "better water quality but high vulnerability to pollution stressors." Data are not available for the Panoche-San Luis Reservoir.

Air Quality—Santa Clara County has the fouth largest population of the 26 counties, paired with the eigth highest emissions in various categories (*table 130*). Santa Clara County is eigth highest in total organic gases emissions, seventh in reactive organic gases emissions, and sixth in carbon monoxide emissions. The majority of emissions are projected for marginal decreases dependent upon emission type. Particulates are expected to increase, primarily from area-wide sources, according to the California Air Resources Board (1999).

Table 130—*1996 estimated and 2010 forecasted annual average emissions, Santa Clara County (cells do not add to column totals due to rounding error).*

Year	Emission category	Emission type[1]						
		TOG	ROG	CO	NOx	SOx	PM	PM10
1996	Stationary	180	23	11	15	1	4	2
	Area-Wide	40	25	58	5	0	74	40
	Mobile	78	69	680	100	2	4	3
	Natural	0	0	2	0	-	0	0
	Total	290	120	750	120	3	82	46
2010	Stationary	190	22	13	13	2	4	3
	Area-Wide	39	21	44	4	0	82	45
	Mobile	30	28	370	62	2	3	3
	Natural	0	0	2	-	-	0	0
	Total	260	71	430	80	4	90	50

Source: California Air Resources Board 1999

[1] TOG: total organic gases; ROG: reactive organic gases; CO: carbon monoxide; NOx: nitrogen oxides; SOx: sulfur oxides; PM: particulate matter; PM10: particulate matter less than or equal to 10 microns (*appendix D*).

Implications

Santa Clara County is famous for being the home of Silicon Valley, for its temperate climate, and for its proximity to San Francisco. Despite its many amenable features, the county is facing a number of challenges; foremost among these challenges is a lack of affordable housing to accommodate the workers that a diverse economy attracts. With its 3.7 percent housing vacancy rate, the county has the lowest vacancy rate of any Bay Area county. Since 1997 residential construction has taken a sharp downturn. Existing homes are expensive. The median home price in the county in 2000 was $540,000 (Shigley 2000). The lack of affordable housing has caused concern for high-tech companies who want to be able to continue to attract employees to the region.

Cities in the northwest of the county are mostly built-out. According to John Landis, professor of city and regional planning at UC Berkeley, if Silicon Valley is going to house its workers, it probably means addressing the amount of land reserved as open space (Shigley 2000). The need for housing is dire in Santa Clara County. With a growing population, a decrease in open space will reduce opportunities for recreation, as well as potentially create environmentally negative side-effects for species habitat, groundwater renewal, and other environmental processes. However, it is possible to accommodate a growing population while also preserving open space by increasing the density of development. The county encourages efforts to increase density in incorporated areas as an alternative to sprawl (Noel 2000).

The ethnic makeup of the county is changing from White to Asian, which corresponds with demographic patterns for the region, yet is different from California's overall trend of the greatest increases among Hispanics.

Because the county is the most populous in the Bay Area, decisions made in the county are likely to affect the welfare of the entire region. Examples of this are drawn from transportation and housing. By excluding itself from the BART system, innovative and costly methods to reduce traffic volume, and transport workers over long distances into the county for work, have had to be devised. Much of this has been due to the lack of affordable housing in the county, thereby affecting the housing markets of surrounding counties and regional air quality.

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Solano County

- Solano County was famous for its fruit until it was overshadowed by fruit production in the Central Valley in the 1930s and 1940s.
- Solano County is considered a "crossroads" county because it is the transportation link between Sacramento and north and south Bay counties.
- The county shows the largest percentage of projected growth in jobs, population, and number of households of any Bay Area county.

History

At the time of Spanish rule in California, the Southern Patwin inhabited Solano County (*fig. 185*). They were divided into smaller tribes—the Ululatos, Labaytos, Malacas, Tolenas, and Suisunes—and were hunters and gatherers (Keegan 1989). Spain had an eye toward conquering the region and its inhabitants. In 1775, Juan Bautista de Ayala and his expedition explored and charted the bay and its tributaries. The first meeting with Indians was peaceful, but subsequent meetings between the Spanish and the Indians frequently ended in battle (Hunt 1926).

Figure 185—Solano County (shaded area) lies between Sacramento and San Francisco Counties.

Source: 50 Individual States—Counties 1995

The purpose of the Spanish expeditions into the inland Bay Area was not only to subdue the Indians and bring converts to the missions but also to prevent the Russians from moving further south from their outpost in Sitka, Alaska (Keegan 1989). The Russians had already erected Fort Ross in present-day Sonoma County, and Spain did not want any further Russian encroachment. Therefore, it was decided that another mission with a presidio was needed: the last of California's 21 missions was established in 1823 in Solano County, just after California came under Mexican rule. General Vallejo, a Mexican officer, was sent from the headquarters at Monterey to make treaties with the Indians. Sem-Yeto, the Suisun chief, became friends with Vallejo and their alliance was critical in the early development of the county (Hunt 1926). Together they captured hostile Indians and brought them to work in the fields under Mexican supervision. Vallejo helped lay out Sonoma, the first town north of San Francisco and founded the city of Vallejo in Solano County (Hunt 1926). In 1835, he was sent north to colonize the region beyond the San Francisco Bay.

Early settlers in Solano include those who had ranchos on their Mexican land grants. In the 1840s two groups of Yankees came to Solano: trappers and settlers. In 1849, the discovery of gold brought even more settlers (Hunt 1926). When California was admitted to the Union in 1850, residents of Vallejo, led by Vallejo himself, proposed the city as the State capital. Vallejo ultimately lost out to Sacramento partly because the city of Sacramento gave its governmental buildings to the State to house the capital (Hunt 1926). The Mare Island Naval Station was identified in 1852 as the site for the first Pacific naval installation. The rationale for its location was that it would be adjacent to the new State capital (Keegan 1989).

Fruit, wheat, and cattle were the primary industries in Solano County (Keegan 1989). Like most California counties in the late 1880s, Solano transitioned from cattle to crops. These early crops included apricots, apples, and pears (Hunt 1926). The rich delta land also makes the county suitable for grain and alfalfa crops. Wheat became the number one crop of Solano County (Keegan 1989).

Solano prospered because it was at the crossroads between markets for its produce in San Francisco and the goldfields near Sacramento. Later, Solano County became the western terminus of the railroad connecting the Bay Area to midwestern and eastern cities. With the completion of the transcontinental railroad, there was a large unemployed group of Chinese laborers who then went to work in the fruit industry (Keegan 1989).

Solano County remained fairly isolated until a main highway was constructed through the county between 1912 and 1914. The Carquinez Bridge was completed in 1927 and further opened the county to populated regions in the south. During World War II, the population surged as military personnel came to Mare Island and the new air base in the county that was later named Travis Air Force Base (Keegan 1989).

Solano County Today

The county's location between the fast-growing Sacramento area and the Bay Area gives it a long-term economic advantage. Two major routes bisect five of the county's seven cities: Interstate 80 and Interstate 680, which link the county to San Francisco and Sacramento. Easy accessibility to the metropolitan areas combined with moderate housing costs has attracted residents to the county. ABAG expects Solano County will have the largest percentage growth in jobs, population, and households of any county in the Bay Area through 2020 (Association of Bay Area Governments 1999).

Many of the new jobs the county will gain are in services and retail. However, the county will likely grow more in residents than in jobs through 2020 (Association of Bay Area Governments 1999). Population is expected to grow more than potential dwelling units and thus, ABAG expects a housing deficit in the south county (Association of Bay Area Governments 1999).

Sociodemographic Characteristics

Projected Population—DOF and ABAG calculated population projections for Solano County (*table 131*). An increasing population is expected through 2040. The DOF and ABAG projections vary by 1,459 persons in 2000. However, as the projections are calculated farther into the future, the gap between DOF and ABAG numbers widens to 4,705 by 2020. Even though there are differences between the population projections for various years, each agency predicts the county will grow by at least 146,100 people between 2000 and 2020. Thus, it could be said that DOF and ABAG are in general agreement about the rate of growth that will occur in Solano County through the forecast period.

Table 131—*Population projections, Solano County, 1990-2040.*

Source	1990	1995	2000	2005	2010	2015	2020	2030	2040
U.S. Census	339,471[1]	-	394,542	-	-	-	-	-	-
DOF	344,116[2]	-	399,841	-	479,136	-	552,105	625,619	698,430
ABAG	339,471	370,700	401,300	450,300	481,700	514,800	547,400	-	-

Source: United States Census Bureau 1990a and 2000, State of California Department of Finance 1998, Association of Bay Area Governments 1999

[1] Data from April 1.

[2] Data from July 1.

Ethnic and Racial Diversity—In 1990, Solano County's population was predominantly White (*table 132*). (These are the 1990 revised U.S. Census numbers.) By 2000, Whites were no longer the majority in the county although they were still the largest ethnic group followed by Hispanics, Blacks, and Asians.

Table 132—*1990 and 2000 population, Solano County.*

	1990	2000
	Percent	
Non-Hispanic White	61.1	49.2
Hispanic all races	13.4	17.6
Non-Hispanic Black	12.9	14.6
Non-Hispanic Asian	11.9	13.2
Non-Hispanic American Indian	0.7	0.6
Non-Hispanic other	0.2	0.2
Non-Hispanic two or more races	N/A	4.5

Source: United States Census Bureau 1990a, 2000

In 1990, 13 percent of Solano County's population was foreign-born. More than 19 percent of residents age 5 and older spoke a language other than English at home. Of those, 57.8 percent spoke a language other than English or Spanish and 42.2 percent spoke Spanish (United States Census Bureau 1990b).

The majority of LEP students in Solano County public schools speak Spanish or Pilipino—mirroring the languages spoken at home (*fig. 186*). In 1997-98, 8.7 percent of Solano County's public school students were LEP.

Projected Ethnic and Racial Diversity—As Solano County's population increases, racial and ethnic diversity are projected to increase through 2040. Whites are projected to decrease as a proportion of the total population while Hispanics, Asians, and Blacks are projected to increase in percentages (*fig. 187*). American Indians represent a small portion of the county's population.

The Hispanic and Asian populations are at almost equal percentages of the population at various times through the forecast period, and show approximately a 9 percent increase in share of the population (*table 133*). Although in 1990 Blacks were an equal percentage of the population compared to Hispanics and Asians, their increasing population is still smaller across the forecast period.

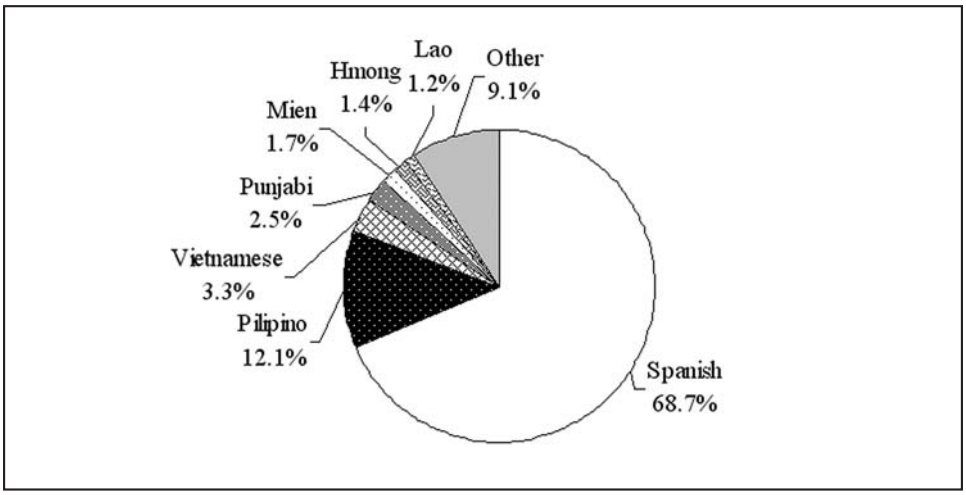


Figure 186—Limited-English-Proficient (LEP) students in Solano County public school districts, by language, 1997-1998.

Source: California Department of Education 1998b

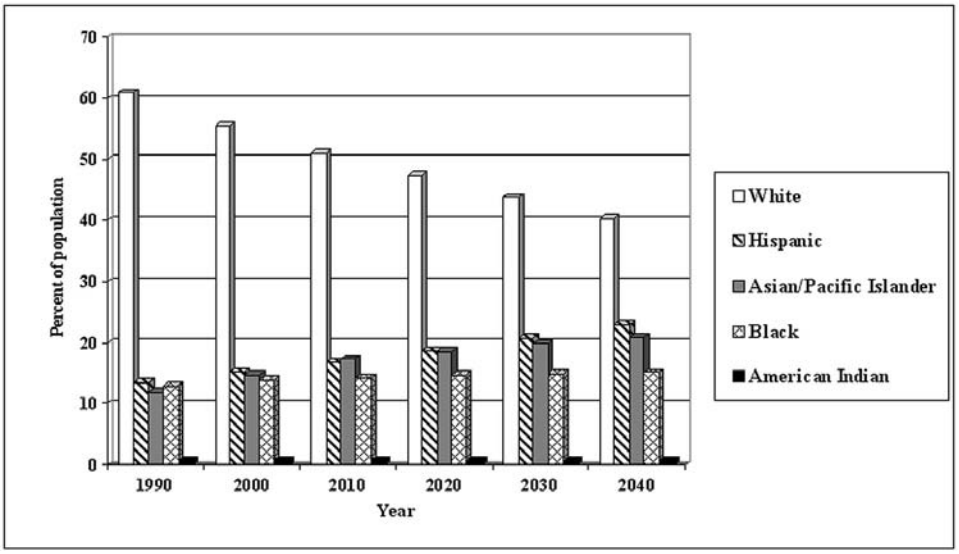


Figure 187—Racial and ethnic diversity trends for Solano County.

Source: State of California Department of Finance 1998

Table 133—*Percent race/ethnicity and percent change in Solano County, 1990-2040.*

Racial/ethnic group	1990	2000	2010	2020	2030	2040	Cumulative percent change
	---------- Year ----------						
White	60.95 -	55.58 (-5.37)	51.00 (-4.58)	47.48 (-3.52)	43.89 (-3.59)	40.42 (-3.47)	-20.54
Hispanic	13.43 -	15.17 (1.74)	16.86 (1.69)	18.66 (1.80)	20.81 (2.15)	23.06 (2.25)	9.63
Asian/Pacific Islander	11.98 -	14.70 (2.72)	17.28 (2.58)	18.53 (1.25)	19.83 (1.30)	20.92 (1.09)	8.94
Black	12.92 -	13.88 (0.96)	14.22 (0.34)	14.72 (0.50)	14.90 (0.18)	15.07 (0.17)	2.16
American Indian	0.72 -	0.68 (-0.04)	0.64 (-0.03)	0.61 (-0.03)	0.57 (-0.04)	0.53 (-0.04)	-0.19

Source: State of California Department of Finance 1998

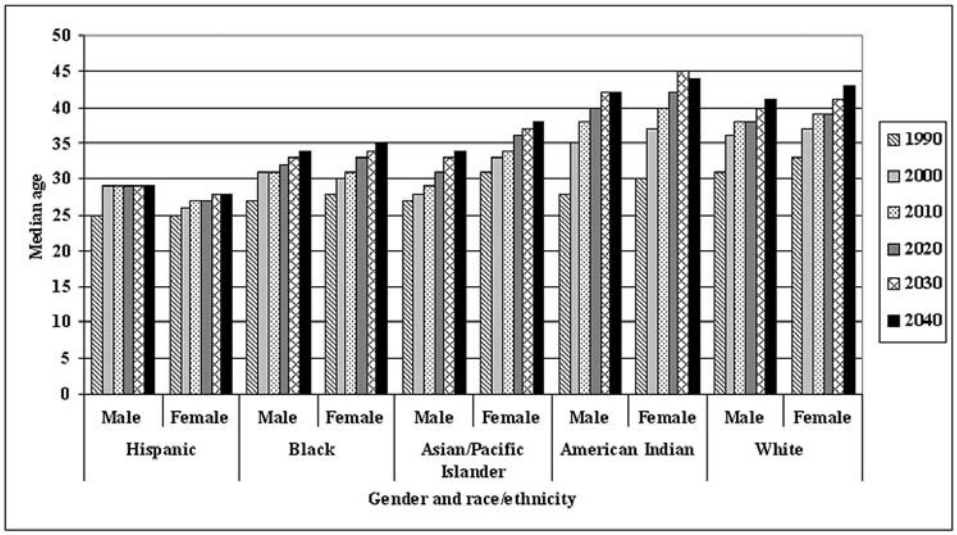
Changes in the area population's age distribution are also expected across the forecast period. The overall median age for the county is expected to increase, from 30 to 36 years. The steepest projected increases in median age are among American Indians (from 29 to 43 years) and Whites (from 32 to 42 years). Blacks and Asians have projected increases of 7 years (from 27.5 to 34.5 and 29 to 36, respectively) (*fig. 188*). Hispanics' median age is projected for a slight increase as well, from 25 to 28.5 in 2040.

Development and Real Estate

Building trends in Solano County from 1987 to 1999 reveal that with the recession, residential construction in incorporated areas plummeted in 1989 (*fig. 189*). In contrast, nonresidential construction in incorporated areas rose slightly, though it represented a much smaller proportion of construction in the county.

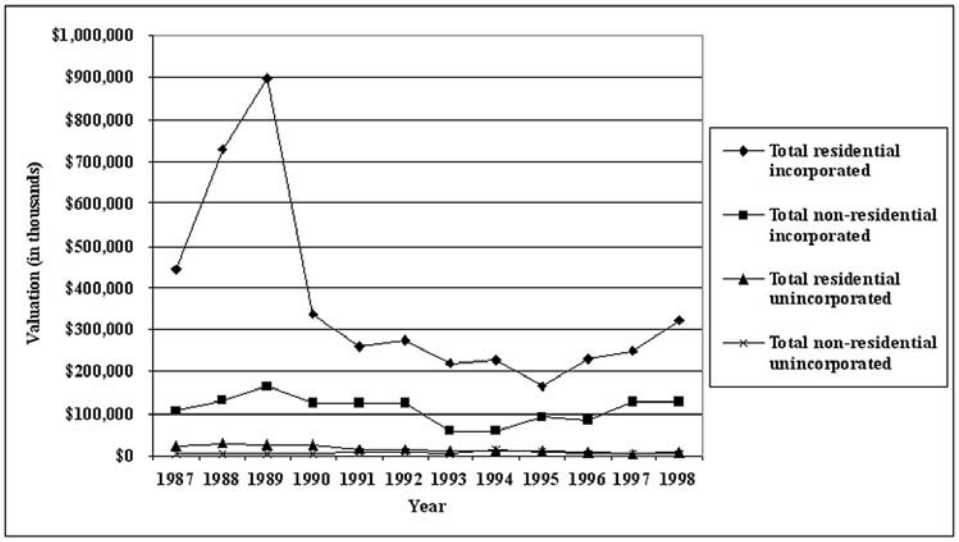
In 1990, Solano County had 113,429 households and 119,533 housing units. The vast majority (94.9 percent) of housing units were occupied; few were vacant (5.1 percent, United States Census Bureau 1990a). Of the occupied housing units, the majority (62.9 percent) were owner-occupied, though 37.1 percent were renter-occupied (United States Census Bureau 1990a). The median value of owner-occupied housing units in 1990 was $147,300, and the median rent was $590 per month.

Figure 188—Median age by gender and race/ethnicity, Solano County, 1990-2040.



Source: State of California Department of Finance 1998

Figure 189—Building trends, Solano County, in 1998 dollars, 1987-1998.



Source: Construction Industry Research Board 1988-1999

Quality of Life Indicators

Transportation, Commuting, and Employment—In 1990, there were 158,713 workers age 16 and older in Solano County, and an average of 1.9 vehicles per household. More than one-third (39 percent) of Solano's residents worked outside the county. The majority (72 percent) of workers drove to work alone, although almost one-fifth carpooled to work (18.5 percent) *(fig. 190)*. The average travel time to work was 28.2 minutes, which was longer than the average commute of 26.5 minutes for seven of the Bay Area counties.

Government has served as a major local employer through military facilities such as the Mare Island Naval Shipyard and Travis Air Force Base. The closing of Mare Island Naval station directly cost the county 9,500 jobs, and the impact of its closing will continue to be felt throughout the decade (Association of Bay Area Governments 1999). Another large institution in the county is the California Medical Facility (CMF), which is a psychiatric and diagnostic clinic for California inmates. Mare Island, Travis, and CMF have all brought revenue into the county and provided jobs for residents.

Agriculture remains a significant industry in the county. The market value of agricultural products sold increased to $161,418,000 from 1992 to 1997, an increase of 43 percent (United States Department of Agriculture 1997). The top five commodities are vegetables, fruits and berries, hay and grass seeds, cattle and calves, and nursery and greenhouse crops.

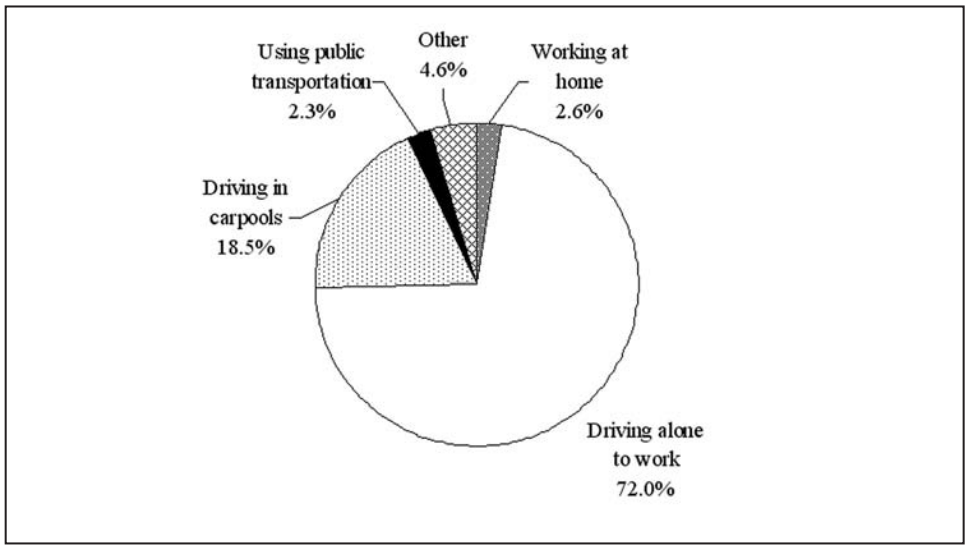


Figure 190—Commuting patterns, workers 16 and older, Solano County, 1990.

Source: United States Census Bureau 1990b

Education—Solano County serves the largest number of students in its elementary schools (*table 134*). The county also has more elementary schools (59) than middle and high schools (14 and 10, respectively). Average enrollment per school is greatest at the high school level, which is the pattern across the assessment area and all counties. Solano County serves 1.3 percent of the assessment area's school enrollments. County schools have the 17th highest enrollment overall and they are 6th in highest average enrollment per school. Students in 2nd through 11th grade were tested using the Stanford 9 at all of the county schools. Solano County's ranking in academic performance for 1999 was a mean of 5.17 out of 10 (based on the similarity index, www.cde.ca.gov), indicating a slightly higher than average performance than similar schools. Although 13.1 and 27.4 percent of schools in the county performed well below or below average compared to similar schools, 14.3 percent were well above average and 15.5 percent were above average.

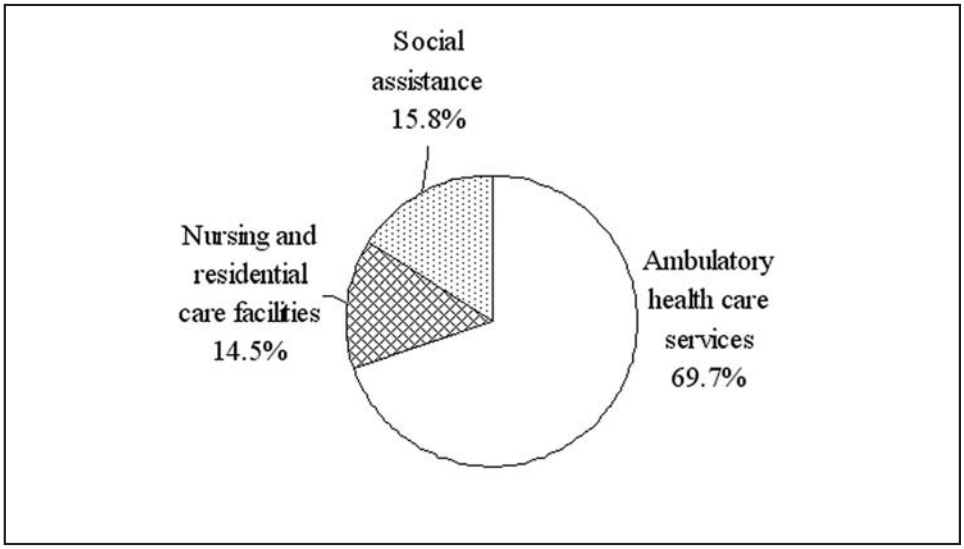
Table 134—*Enrollment and number of schools, Solano County, 1998-1999.*

Type of school	Total enrollment	Percent of total enrollment	Number of schools	Average enrollment/ school
Elementary	36,225	52.9	59	614
Middle/Junior High	12,974	18.9	14	927
High School	19,311	28.2	10	1,931
Total	68,510	100.0	83	-

Source: California Department of Education 1998a

Health Care—The largest number of health care establishments in the county deliver ambulatory health care services, followed by social assistance, and nursing and residential care (*fig. 191*). There are no hospitals in the county as reported by the U.S. Census Bureau. However, the county has six hospitals, representing 1.5 percent of the assessment area's total hospitals (ahd.tool.net/list.php3/mstate=ca). The majority (66.7 percent) of the hospitals are nonprofit, with the balance classified as Federal (16.7 percent) or for-profit (16.7 percent) facilities. For those hospitals with reported data (five hospitals), a total of 662 beds and 128,386 total patient days were recorded in 1999. The county ranked 18th in number of hospitals, comparable to its 19th place ranking in population.

Figure 191—Health care and social assistance establishments, Solano County, 1997.



Source: United States Census Bureau 1999a

Recreation and Tourism—Among the assessment area's 26 counties, Solano ranked 22nd in the 1997 economic census in accommodations and food services, and 22nd in arts, entertainment, and recreation (United States Census Bureau 1999b, 1999c). A total of 568 accommodation and food-services establishments were in the county, with receipts of $291,067,000. Arts, entertainment, and recreation services involved 65 establishments, with receipts totaling $66,252,000.

Solano County offers fishing and picnicking at the Benicia State Recreation Area, and boating, fishing, and other recreational pursuits at the Brannan Island State Recreation Area (Thomas Bros. Maps 1998). Visitors can tour the Anheuser-Busch Brewery or the Jelly Belly Candy Company in Fairfield, and the Mare Island Historic Park in Vallejo. Six Flags Marine World is also located in Vallejo (www.visitvallejo.com/VisitorsGuide/vwg.attractions.htm).

Environmental Indicators

Water Quality—Solano County crosses three watersheds: the Lower Sacramento, Suisun Bay, and San Pablo Bay (www.epa.gov/surf3/surf98/county.html). (Watersheds frequently cross county boundaries. Therefore, some counties may include watersheds that are also located in other counties.) The Suisun Bay watershed was assigned a "6" by the EPA, indicating "more serious water quality problems and high vulnerability to pollution stressors." (According to the EPA's Index of Watershed Indicators procedures, a pollution stressor includes aquatic/wetland species at risk, toxic loads above limits, urban runoff potential, agricultural runoff potential, population change, hydrologic modification, estuarine pollution susceptibility, and atmospheric deposition.) The San Pablo Bay was assigned a "4," indicating "less serious water quality problems but high vulnerability to pollution stressors." The Lower Sacramento watershed was assigned a "3," indicating "less serious water quality problems and low vulnerability to pollution stressors."

Air Quality—Solano County has the 19th largest population of the 26 counties, paired with a similar standing in emissions in various categories (*table 135*). Solano County ranks 21st highest in total organic gases emissions, 17th in reactive organic gases emissions, and 15th in carbon monoxide emissions. The majority of emissions are projected for marginal decreases dependent upon emission type. Particulates are expected to increase, primarily from area-wide sources, according to the California Air Resources Board (1999).

Table 135—*1996 estimated and 2010 forecasted annual average emissions, Solano County (cells do not add to column totals due to rounding error).*

Year	Emission category	Emission type[1]						
		TOG	ROG	CO	NOx	SOx	PM	PM10
1996	Stationary	37	14	2	11	17	1	1
	Area-Wide	11	7	22	1	0	33	18
	Mobile	30	27	210	37	1	3	3
	Natural	0	0	0	0	-	0	0
	Total	78	48	230	50	18	38	22
2010	Stationary	44	16	2	11	18	2	1
	Area-Wide	11	7	19	1	-	38	20
	Mobile	17	16	120	26	2	3	3
	Natural	-	-	0	-	-	-	-
	Total	73	39	140	38	19	43	24

Source: California Air Resources Board 1999

[1] TOG: total organic gases; ROG: reactive organic gases; CO: carbon monoxide; NOx: nitrogen oxides; SOx: sulfur oxides; PM: particulate matter; PM10: particulate matter less than or equal to 10 microns (*appendix D*).

Implications

Solano County shows the largest percentage growth in jobs, population, and number of households of any Bay Area county (Association of Bay Area Governments 1999). Historically, Solano County has been a transportation crossroads. However, with the housing crisis in the Bay Area, the county has the potential to attract a large population of residents looking for more affordable housing. The county has the second highest vacancy rate after San Francisco County, which implies that Solano County has room to accommodate some of the region's population. ABAG predicts growth in three regions: Fairfield, Vacaville, and Vallejo, with Vallejo's growth tied to the reuse of Mare Island (Association of Bay Area Governments 1999).

The ethnic diversity of the region is growing as well. Hispanics, Asians, and Blacks are all projected to grow as a proportion of the population. Although the median age of the population is projected to increase from 30 to 36 years, the population is younger on average than the populations of other Bay Area counties.

Solano County is an agricultural community with a growing industrial base. Government has historically been the mainstay of the county's economy, employing nearly one out of every two non-agricultural workers (County of Solano 1995), but the new jobs that the county is expected to add will be in the service and retail areas. The closure of military bases in the county will have an unpredictable effect on household growth. Another factor that affects the future development of Solano County is the growth control initiative, adopted in 1994, that restricts development on agricultural land outside cities. Cities are allowed to annex agricultural land only if it is contiguous to that city's municipal limits. As a result, ABAG does not project significant development outside Solano County's existing cities (Association of Bay Area Governments 1999). This has positive implications for the preservation of open space in the county.

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Summary and Implications for ABAG Region

The economy in the Bay Area is booming in the early part of the 21st century, driven by the expansion of the high-tech industry, which is centered in Santa Clara County. Although Bay Area residents generally have high incomes, they also pay higher costs in housing and have a longer average commute than residents in southern California.

As affordable housing becomes available only in far-reaching corners of the region, more people will commute, thus worsening traffic and air quality in the region. In fact, people are searching beyond the region for housing, and many commute from Stanislaus, San Joaquin, and San Benito Counties. The new housing in the region also tends to be constructed far from existing transit lines, making public transit an unrealistic option for many commuters. Infrastructure is unable to keep pace with urban sprawl.

Long-range forecasts by ABAG indicate that the jobs-housing imbalance is likely to worsen in the future as job growth continues to outpace housing development (Association of Bay Area Governments 1999). The high cost of housing in the region is causing a reversal of a historic trend of poor residents in central cities and the wealthy in outlying suburban areas. The increase in sprawl and the number of commuters will increase traffic congestion, pollution, accident-related deaths and disabilities, auto and health insurance, highway repairs, and the consumption of natural resources for highway expansion and construction (Association of Bay Area Governments 1997). John Landis, professor of city and regional planning at the University of California, Berkeley says, "No amount of 'good planning' or transit-oriented development is going to solve the problem. We just need more housing production, and that's a hard thing to say if you are an elected leader" (Shigley 2000, p. 16).

The Bay Area shows increasing ethnic diversity, particularly growth in the Asian population. This diverges from the pattern in other regions and for the State,

which shows the most growth in the Hispanic population. The Bay Area counties also have higher median ages than other regions, which is consistent with the trend of greater growth in the Asian population. Asians have a higher median age than Hispanics, who are generally the youngest of all the ethnic groups across the 26 counties in this assessment.

An Asian majority may choose different political leaders, may make different residential and recreational choices, and may or may not prioritize environmental protection over economic development. Finally, regional governance in the San Francisco Bay Area remains advisory rather than possessing the legislative powers that could make it easier to balance growth and environmental protection on a region-wide basis.

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VII. Assessment Area Summary

Selected Trends in the Southern California Socioeconomic Assessment Area

An analysis of selected indicators for the socioeconomic assessment area was conducted, in addition to the regional and county level analyses presented in the preceding sections of this volume. Findings were:

(1) Focused on population growth:

- In 1990, Los Angeles County had the highest population followed by San Diego County. In 2000, Orange County replaced San Diego County as the county with the second highest population. Also in 2000, San Bernardino surpassed Santa Clara County, Riverside County surpassed Alameda County, and Monterey County surpassed Santa Barbara County in population.
- While increase in population is expected through 2040 in all counties, the Central Valley Region is expected to have the largest increase in population across the forecast period.

A comparison of the projections provided by the State of California Department of Finance and results from Census 2000 reveals that projections for the overall growth in the region are on target. However, there is some variation at the county level because the available county level projections from the State of California are based on 1990 Census data and adjustments to that data. The reader should note that the U.S. Census and Department of Finance numbers are somewhat fluid because of adjustments and updates routinely provided by both agencies. Additionally, adjustments to State data in light of Census 2000 were not complete at the point this document was finalized.

(2) Focused on ethnic and racial diversity:

- The most ethnically and racially diverse area was the SCAG region in 1990, followed closely by the Central Valley. Hispanics of any race were a higher percentage of the regional population within the SCAG region, while the largest percentages of non-Hispanic Blacks and non-Hispanic Asians were found in the ABAG region.
- In 1990, the SCAG and ABAG regions had the highest percentages of population that were foreign-born. Among counties, San Francisco and Los Angeles had approximately one-third of their populations as foreign-born and San Luis Obispo had the lowest percentage (less than one-tenth).
- Across regions the Central Coast had the greatest percentage of persons age 5 and older speaking Spanish at home in 1990; the ABAG region had the highest percentage of persons age 5 and older speaking a language other than Spanish or English at home.

- The proportion of LEP students in 1990 was highest in Imperial, Los Angeles, Monterey, Orange, and San Francisco Counties. Across regions, SCAG showed the highest proportion of students that were LEP.
- The largest percentage of LEP students spoke Spanish in 24 of the counties, with San Francisco and Sacramento having languages other than Spanish represented in the majority LEP language(s).
- Whites and American Indians are expected to decline as a proportion of the population in the majority of counties. Blacks vary by county in expected increase or decrease, falling within a range of 5 percent variation. The most dramatic changes are expected for Hispanics and Asian/Pacific Islanders; both groups are expected to increase as a proportion of the total population in the majority of counties. Hispanics are expected to increase the most in four of the regions, while Asian/Pacific Islanders are projected for the greatest increase in the ABAG region.

(3) Focused on changing age structures:

- Median ages are expected to vary across gender, race/ethnicity, and county through 2040. A trend of increasing median age, steepest among the American Indian, White, and Black populations, is expected. The age structure among Hispanics and Asian/Pacific Islanders is much younger across the forecast period.

(4) Focused on development and housing:

- The largest share of construction dollars was for residential construction in incorporated areas from 1987 to 1998. An increase in construction within unincorporated areas was not evident across the decade of data examined, nor was it evident in areas approaching build-out. Annexation may account for a portion of this finding. The recession during the late 1980s and early 1990s was evident in reduced construction across all counties.
- The percent of owner-occupied housing units was highest in the Central Valley region, while the highest renter-occupied housing percent was in the SANDAG region. In 1990, the highest percent of vacant housing units was in the Central Coast region.
- The average median value of owner-occupied housing in 1990 was highest in the ABAG region, followed by the Central Coast region and SANDAG. Median rents parallel this same cost structure.

(5) Focused on transportation, commuting, and employment:

- San Diego County had very few workers employed outside the county in 1990; conversely San Mateo and Marin Counties had slightly less than half of their workers employed outside the county. Both counties are within the ABAG region, which reported the highest average region-wide (an average of 31.7 percent).
- There was little variation in the average number of vehicles per household in 1990 across regions, although the Central Coast had a slightly higher average. County variations were a bit larger, though still comparable.
- The SCAG and Central Valley regions had the highest percent of workers driving alone to work, while the highest percent of workers using public transportation was in the ABAG region.
- The average travel time to work in minutes varied across regions, with the ABAG region having the highest average of 26.6 minutes. Average travel time was shortest in the Central Coast region.

(6) Focused on education:

- Across all counties, elementary schools served the largest number of students in 1998-99, with the highest average enrollment at the high school level.
- Academic performance among county schools participating in the Stanford 9 achievement test varied widely, with San Diego County showing the highest average performance across schools. Central Valley counties had the greatest numbers of schools performing below, or well below average.

(7) Focused on environmental quality:

- Water quality was variable by watershed, with many watersheds crossing over counties within a region, and across regions. The best water quality ratings were within the SANDAG and SCAG regions, the highest averages (indicating poorer quality) were within the Central Valley. Watershed quality averages are provided only for purposes of comparison and should be viewed with caution.
- Emissions for 1996 varied widely by type and level across counties. However, across all counties and regions a general trend for reduced emissions was forecasted, with the exception of PM and PM10 types.

Tables supporting the above summaries appear in *appendix G*, provided for readers with an interest in contrasting the 26 counties.

Regional Trends

Dramatic change is forecasted for southern California. The population in the region is expected to double through 2040, increasing direct and indirect impacts on the surrounding natural areas. Racial and ethnic diversity is expected to increase, and the median age of all racial and ethnic groups except Hispanics is expected to increase (*figs. 192, 193*). Although there is some variation to this by region or county, as illuminated in each region's write-up, the overall forecast remains the same.

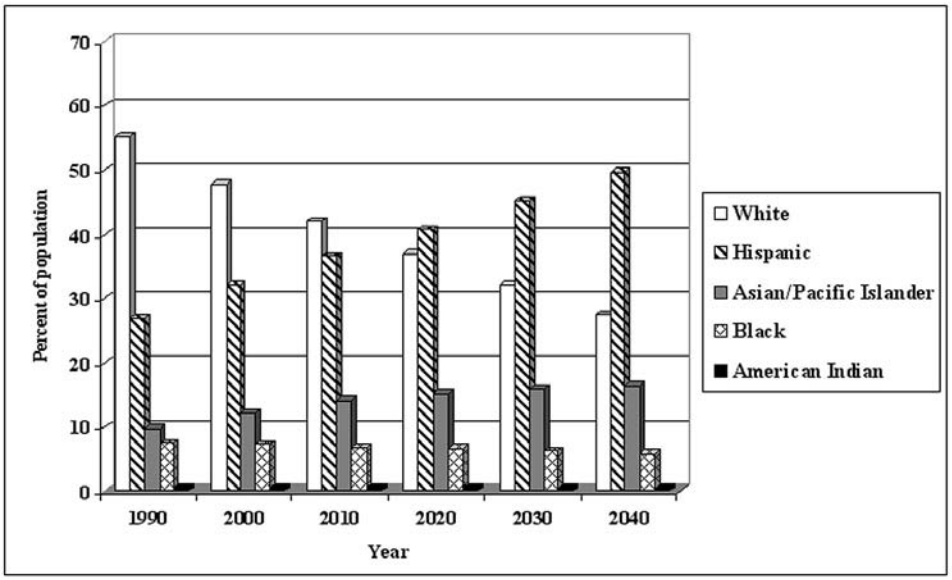
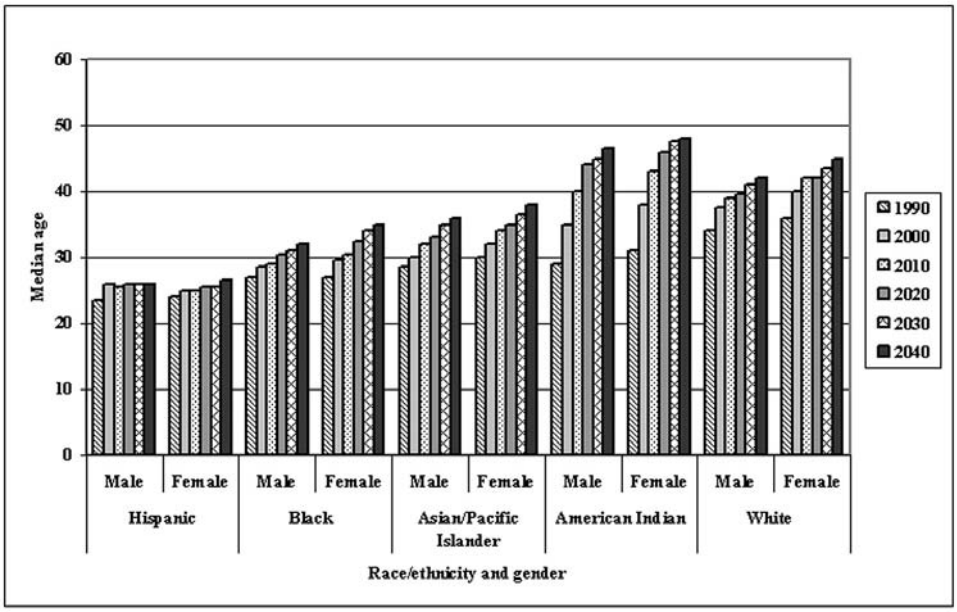


Figure 192—Racial and ethnic diversity trends for the assessment area.

Source: State of California Department of Finance 1998

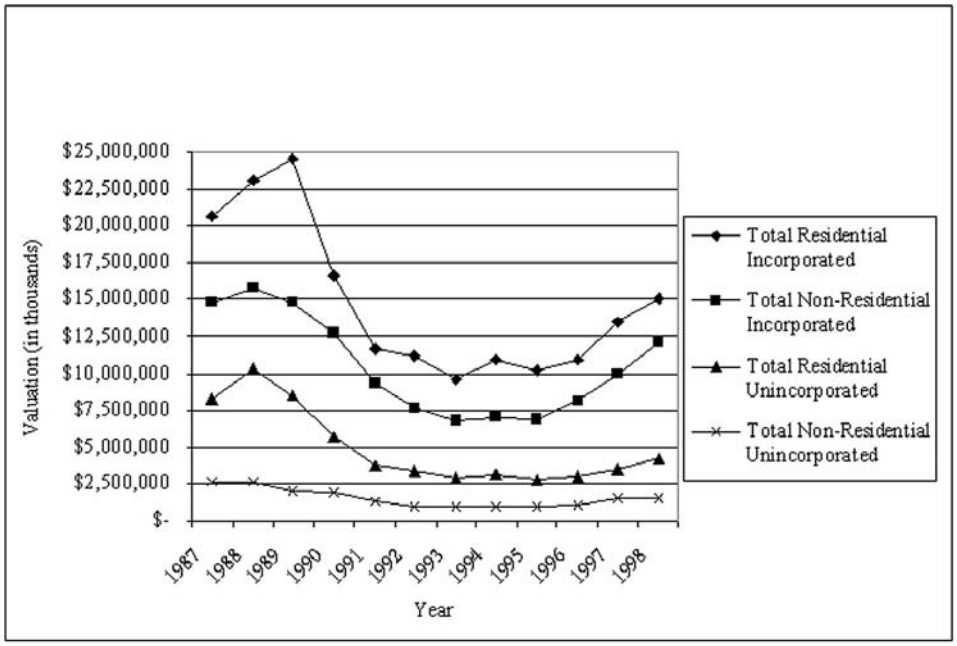
Figure 193—Median age by race/ethnicity and gender, assessment area, 1990-2040.



Source: State of California Department of Finance 1998

An analysis of past building trends provides insight into whether growth is likely to occur in incorporated or unincorporated areas of counties. Building trends from 1986 to 1998 act as a guide to how these areas might grow in the future. An analysis of building trends for the assessment area shows the highest proportion of building in incorporated areas (*fig. 194*). Construction declined after 1989 due to the recession, but was on the rise in 1997, although it did not reach pre-1989 levels. With the projected population growth for California, most growth is likely to continue in incorporated areas, but there may also be significant growth in unincorporated areas as people search for cheaper housing. This is particularly a concern in California's Central Valley where, if current rates of growth continue, 1 million acres of prime farmland would be lost by 2040, the population is expected to reach 15.6 million people by 2040 from a 1998 population of 5.4 million, and rates

Figure 194—Building trends, assessment area, in 1998 dollars, 1987-1998.



Source: Construction Industry Research Board 1988-1999

of growth are projected to be 20 to 25 percent higher than the State's coastal areas (Great Valley Center 1998). Other regional growth areas include the Inland Empire of San Bernardino and Riverside Counties in the SCAG region (The Business Press 2000) and counties in the eastern portion of the ABAG region (Association of Bay Area Governments 1998). All areas are experiencing a conversion of agricultural land and open space to suburban development. Suburban development leads to increased impacts on National Forest land because this growth is occurring at the urban-wildland boundaries. Additionally, the increase in sprawl and the number of commuters will increase traffic congestion, air pollution, highway repairs, and the consumption of natural resources for highway expansion and construction (Association of Bay Area Governments 1997).

Summary and Implications for Assessment Area

The results above suggest that changes highlighted for each region and county are reflected in the assessment area as a whole. The dramatic changes expected for the region, and its broader implications, are discussed in the Conclusions section.

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VIII. Conclusions

The challenges of managing wildland-urban areas are particularly relevant in southern California where the forests are unique from most other National Forests because of their proximity to a large urban population. In addition to the large population adjacent to the forests, uniqueness is found in the ethnic and racial diversity of the region (Allen and Turner 1992). Much of California's future population growth is expected to occur as a result of international immigration and the higher fertility rates of newly arrived immigrants compared to those who have longer tenure in this country (Johnson 1999). Seventy-six percent of all immigrants entering the United States during the 1980s went to only six states, and California received four out of every ten immigrants (Fix and others 1994). California provides a virtual laboratory for studying the dynamic relationship between land management agencies and urban populations because of its rapid social change and cultural diversity.

Recent decades have shown an increasing shift in population away from the coastal counties/metropolitan areas of Los Angeles and the San Francisco Bay Area towards the Central Valley and the Inland Empire (Fulton and others 2000, Southern California Association of Governments 1998). The environmental sensitivity of these areas compounds the complexity of managing for growth while protecting endangered species and their habitats (Fulton 1999). The mountains and foothills surrounding these populations are affected by natural disturbances (such as fire and flood), the spread of elements (such as air pollution), and human uses of the land (including draw of resources such as water, development, and recreation) (Stephenson and Calcarone 1999).

California is already unique from the rest of the nation in its demographic diversity, as well as being the most populous state in the nation (Baldassare 2000, Shingawa and Jang 1998). In 1990, California contained some of the largest shares of the nation's African American (along with New York), Asian Pacific American, Native American (second to Oklahoma) and Hispanic American populations (Shingawa and Jang 1998).

The projected increases in population, aging of most ethnic groups, and the projected ethnic and racial composition of the state's population suggest that the assessment area holds special interest from a resource planning perspective. As the nation's population increases and becomes more diverse, lessons from California can provide a helpful view of resource management concerns. For example, recreation use in the four southern California urban-proximate National Forests is described as a "window to the future" for the U.S. Forest Service (USDA Forest Service 2000).

Population projections tell us things about the public in general, which when coupled with recreation trends give us insight into potential impacts on natural resources into the future. Demographic changes will impact both the magnitude and characteristics of outdoor recreation use (Kelly and Warnick 1999, Murdock and others 1991). Rajan and others (1999) predict that recreational opportunities in California will be outpaced by demand in the years to come. With increased growth in the Hispanic and Asian populations, increased visitation by these groups to the National Forests in southern California is expected. There are not only differences in recreational patterns based on race/ethnicity, gender, income, education, and previous experience (Bowker and others 1999) but also differences

based on age (Dwyer 1994). People born at different times are exposed to different values, norms, behaviors, fads, and recreation opportunities (Dwyer 1994). The rising median age of all ethnic groups except Hispanics indicates that nonconsumptive wildlife activities such as photography, bird watching, picnicking, and hiking are expected to increase over the next 50 years, while consumptive wildlife activities such as hunting are projected to decline (Bowker and others 1999). Participation by Whites is expected to drop, but participation by other ethnic groups is expected to increase. The implication is that visitation to more remote wilderness-like sites may slow or even decrease due to variations in interest in remote wilderness activities by groups of color, but visitation to areas closer to urban centers is likely to increase (Ewert and others 1993). These changes will be best addressed through collaboration among providers of recreational opportunities (Rajan and others 1999).

Clearly the projections for southern California have implications for natural resources management beyond recreation-related concerns. As rising land costs make home ownership unaffordable for many young families and senior citizens, people may search for less expensive property on the urban boundary. This property is closer to wildland areas than ever before. Regions that were once remote ranching and farming communities have become a magnet for retirees and others who have sought refuge and beauty on the edge of the wilderness (Murphy 2000). This emerging settlement pattern creates conflict when fire officials have to focus resources on protecting rural residential developments, leaving most other fires to burn (Murphy 2000). Other environmental consequences of home construction on the edge of forest areas are increased amounts of air and water pollution, and a heavier burden placed on roads, sewer systems, and telecommunications. This encroachment upon the wildland-urban interface zone, paired with increased impacts from the population at large, represent challenges to planners concerned with regional, county, city, and natural resource-based issues.

This socioeconomic assessment highlights the changing nature of the population and the need for land management agencies to involve emerging constituencies. Growth in communities of color will make it increasingly important for Federal land managers to solicit public involvement from ethnic groups (Baas 1993). One strategy is to identify community leaders and engage them in open communication on a long-term basis. Identifying and using informal networks of communication is necessary for increasing public involvement of underrepresented groups. In other words, the focus should be shifted from an emphasis on specific programs that require public participation to the development of a management culture that solicits participation consistently over time (Healey 1998).

At a regional level, the currently loose connection between various regional, county, city, and land management agencies is striking (Fulton and others 2000, U.S. Congress Office of Technology Assessment 1992). The region represented in the socioeconomic assessment for southern California is the most populous region of the State. Additionally, that region contains the State's greatest share of diversity, as well as that of the nation. The dramatic increases in population projected for this region, along with the increased ethnic and racial diversity and changing age structures, represent impending shifts in demands, values, and expectations. All of this will occur within the constraints represented by finite resources, including public lands and resources. The recommended collaboration among recreation service providers (Rajan and others 1999) represents only a selected area of concern within the larger need for collaboration among planning and management forces in the region. A vision for the future should include a connective link between these agencies, in order to allow more integrated planning.

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Appendix A—Counties in Socioeconomic Assessment Area, by Five Regional Divisions

San Diego Association of Governments (SANDAG) Region

1. San Diego

Southern California Association of Governments (SCAG) Region

2. Imperial
3. Los Angeles
4. Orange
5. Riverside
6. San Bernardino
7. Ventura

Central Coast Region

8. Monterey
9. San Luis Obispo
10. Santa Barbara
11. Santa Cruz

Central Valley Region

12. Fresno
13. Kern
14. Kings
15. Merced
16. Sacramento
17. San Benito
18. San Joaquin
19. Stanislaus

Association of Bay Area Governments (ABAG) Region

20. Alameda
21. Contra Costa
22. Marin
23. San Francisco
24. San Mateo
25. Santa Clara
26. Solano

Appendix B—List of Councils of Government

ABAG Association of Bay Area Governments

AMBAG Association of Monterey Bay Area Governments

Council of Fresno County Governments

IVAG Imperial Valley Association of Governments, Imperial County

Kern COG Kern Council of Governments

Los Angeles County: Arroyo Verdugo
City of Los Angeles
Gateway Cities COG (Southeast LA County)
Las Virgines/Malibu COG
North Los Angeles County
San Gabriel Valley Council of Governments
South Bay Cities Council of Governments
Westside Cities

MCAG Merced County Association of Governments

OCCOG Orange County Council of Governments

Riverside County: CVAG Coachella Valley Association of Governments
WRCOG Western Riverside Council of Governments

SAAG Stanislaus Area Association of Government

SACOG Sacramento Area Council of Governments

SANBAG San Bernardino Association of Governments

San Benito County Council of Governments

SANDAG San Diego Association of Governments

Santa Barbara County Association of Governments

SCAG Southern California Association of Governments

SJCOG San Joaquin County Council of Governments

SLOCOG San Luis Obispo Council of Governments

VCOG Ventura Council of Governments

Appendix C—State of California Department of Finance (DOF)

In order to calculate county population estimates, DOF uses three independent methods to triangulate the data: (1) the Household Method estimates the annual proportionate change in each county's distribution of households compared to the prior year, (2) the Ratio Correlation Method models changes in household population as a function of changes in the distribution of driver licenses, school enrollments, and labor force participation, and (3) the DLAC Method is the Driver License Address Change method modified for counties. The DOF states that the data and models they use are subject to measurement error, but that comparisons are made with decennial census benchmarks. A comparison of DOF's 1986 projections with the 1990 Census revealed a mean absolute percent error rate of 2.4 percent. (According to Mary Heim, Demographic Research Unit, State of California Department of Finance. [Email correspondence with Rachel Struglia]. 14 June 1999.) The DOF does round their numbers.

The DOF further refines the base population for special populations, which includes prisons, colleges, and military installations. In counties where special populations represent a significant proportion of the total population, they are removed from the base population figures and projected separately. Projections are calculated using a baseline cohort-component method. The five race/ethnic categories (White, Hispanic, Asian or Pacific Islander, Black, and American Indian) are mutually exclusive. A baseline projection assumes people have the right to migrate where they choose and no major catastrophes or war will befall the state or nation.

A cohort-component method traces people born in a given year through their lives. As each year passes, cohorts change due to mortality and migration assumptions. New cohorts are formed by applying the fertility assumptions to women of childbearing age. Mortality, fertility, and migration assumptions are based on life tables developed using deaths by gender, race/ethnicity, and age for 1970, 1980, and 1990 from the Department of Health Services. Age-specific, general, and period fertility rates were developed by race/ethnicity and by county for 1970, 1980, and 1990. Migration proportions were developed for the two decades between 1970 and 1990 by a survived population method. The 1970 population was aged forward in time to 1980 by adding recorded births to form new cohorts and subtracting deaths from existing cohorts. The survived population was compared to the 1980 population, and differences were assumed to be due to migration. The 10-year migration was annualized and divided by the total to derive a proportion. The same process was used for the period 1980 to 1990. The migration proportions for the two decades were then averaged using a 5-year moving average. Because migration is the most volatile component of population change, DOF relies on long-term averages of total net migration. The DOF expects total net migration in the period between 1997 and 2003 to rebound from the historically low level of the mid-1990s and to average more than 250,000 a year. According to the DOF, this is consistent with recent short-term forecasts. The DOF predicts migration will slowly decline to about 180,000 a year after 2015. This represents a return to a long-term historical annual average, modified by county-specific migration assumptions made in consultation with local government planners and demographers.

Appendix D—Air Quality Emissions Definitions

Total Organic Gases (TOG): Gaseous organic compounds, including reactive organic gases and the relatively un-reactive organic gases such as methane.

Reactive Organic Gas (ROG): A photochemically reactive chemical gas, composed of non-methane hydrocarbons, that may contribute to the formation of smog. Also sometimes referred to as Non-Methane Organic Gases (NMOGs).

Carbon Monoxide (CO): A colorless, odorless gas resulting from the incomplete combustion of hydrocarbon fuels. CO interferes with the blood's ability to carry oxygen to the body's tissues and results in numerous adverse health effects. More than 80 percent of the CO emitted in urban areas is contributed by motor vehicles.

Nitrogen Oxides (Oxides of Nitrogen, NOx): A general term pertaining to compounds of nitric oxide (NO), nitrogen dioxide (NO_2), and other oxides of nitrogen. Nitrogen oxides are typically created during combustion processes, and are major contributors to smog formation and acid deposition. NO_2 is a criteria air pollutant and may result in numerous adverse health effects.

Sulfur Oxides: Pungent, colorless gases (sulfates are solids) formed primarily by the combustion of sulfur-containing fossil fuels, especially coal and oil. Considered major air pollutants, sulfur oxides may impact human health and damage vegetation.

Particulate Matter (PM): Any material, except pure water, that exists in the solid or liquid state in the atmosphere. The size of particulate matter can vary from coarse, wind-blown dust particles to fine particle combustion products.

PM10 (Particulate Matter): A criteria air pollutant consisting of small particles with an aerodynamic diameter less than or equal to a nominal 10 microns (about 1/7 the diameter of a single human hair). Their small size allows them to make their way to the air sacs deep within the lungs where they may be deposited and result in adverse health effects. PM10 also causes visibility reduction.

Source: California Air Resources Board. 2000. **Glossary of air pollution terms.** Sacramento, CA: California Air Resources Board.

Appendix E—Southern California Association of Governments (SCAG)

SCAG relies on two factors to determine population growth: natural increase, which is the balance between births and deaths, and net migration, which is the balance between the number of people coming into, and leaving the region. (This description of the forecasting process comes from Simon Choi of SCAG's Forecasting Unit and from a document entitled "Baseline Projection" prepared by Viviane Doche-Boulos, Bruce Devine, and Terry Billis in 1995. This document is the basis for the 1998 Adopted Forecast, which is currently being used in the SCAG process.) Net migration includes domestic migrants and immigrants, both legal and undocumented. The technique used to project population at the regional and county level is the cohort-component model. In this model, future population is calculated by adding projected births and people moving in, and subtracting projected deaths and number of people moving out of the area. Fertility, mortality, and migration rates are projected in 5-year intervals for each age group, for four mutually exclusive ethnic groups: non-Hispanic White, non-Hispanic Black, non-Hispanic Asian, and Hispanic. For residents, domestic and international migrants are calculated separately.

In order to calculate projections, SCAG links population dynamics to economic trends. SCAG assumes that patterns of migration into and out of the region are influenced by the availability of jobs. The future labor force is computed from the working age population, and the labor force number is compared to the number of jobs, which is projected independently from the employment model. According to SCAG, if any imbalance occurs between the labor force number and the number of jobs, it is corrected by adjusting the migration assumptions of the demographic projection model.

Because net migration is associated with the economic conditions in a region, SCAG had to consider whether the 1990-1994 recession, which accounted for more than half a million jobs lost in the region and plummeting levels of net migration, was an accurate basis for projected migration trends between 1995 and 2020. The trends for 1995-2020 assume a relatively favorable economic climate, which will result in lowered levels of domestic out-migration. The levels of legal and undocumented migration experienced in 1990 were assumed to hold true for the year 2000. According to SCAG, on an annual average, 95,000 legal and 85,000 undocumented immigrants have entered the region.

With regard to natural increase, SCAG reports that the current number of births in the region reflects the high fertility rates among ethnic and immigrant groups and the large proportion of women in childbearing ages. Following national and international expected trends, it is assumed that over the projection period, women will have fewer children on average. Declining fertility rates of Hispanic women will be the main contributing factor for this downward trend. The average number of children per woman is expected to drop from 2.7 in 1990 to 2.5 in 2020. SCAG also assumes that survival rates by age, sex, and ethnicity will improve over the projection period, consistent with the projected national trend.

The regional population is expected to grow from its current 16 million to 22.8 million in 2020. This is a compound annual growth rate of 1.4 percent, compared to 2.4 percent experienced in the 1980s. Most of the population growth through 2020 will be due to natural increase. The proportional share of Hispanics and non-Hispanic Asians will increase while the proportion of non-Hispanic Whites and Blacks will decline. This is consistent with DOF projections. It is expected that the region will remain attractive to immigrants who are typically young. The attractiveness of the region and the fact that future growth will be due to children

born since 1990 means that the median age in the region will remain lower than the state and national average. The dependency ratio, which is the ratio of persons younger than 15 and older than 65 years of age compared to the 15- to 64-year-old age group, will increase from 0.48 in 1990 to 0.58 in 2020.

The economic projection model used by SCAG links job growth in the region to job growth in the United States and California by analyzing changes in the region's share of national and state employment on an industry-by-industry basis since 1972. SCAG uses analyses of job growth within various industries to develop total job growth for the region. SCAG first projects employment growth in basic industries and then, using a series of multipliers, generates total job growth. For national figures, SCAG relies on the Bureau of Labor Statistics (BLS), and for California, SCAG uses numbers prepared by the Center for Continuing Study of the California Economy (CCSCE). The BLS provides industry-by-industry projections of employment and output for 228 industries in the United States, while the CCSCE provides analogous projections for 83 California industries. Because the BLS projection series ends in 2005, the CCSCE prepared estimates for national employment growth by estimating total U.S. jobs from U.S. Census Bureau projections of population and forecasts of national labor force participation rates.

From the national projections of employment by industry, the modeling process derives the region's share of national employment growth. The first step is to determine whether industries are "base" or "nonbase". Industries whose level of activity depends primarily on national, international, or state markets are considered base industries for the region. Nonbase industries are primarily dependent on demand from local markets. Of the 83 industries used by CCSCE, 66 are base and 17 are nonbase, but SCAG's regional model uses a total of 69 industries because the regional economy is not as diverse as the state economy. Of the 69 industries, 49 are base and 20 are nonbase.

The next step is to prepare regional projections for each of the base industries. SCAG uses historical annual wage and salary employment data for each industry published by the state Employment Development Department (EDD). The data cover the years 1972 through the base year of the forecast. The model generates various types of analyses about the nature of growth in each base industry and its relationship to the same industry at the state level. For instance, the model looks at each industry's annual share of employment in the state, the industry's average share of employment over the historical period, its share of total job growth over the period, changes in the industry's share of employment growth over time and a regression of trends in SCAG's share of California employment. SCAG then reviews each base industry's characteristics and selects the factors to use in yielding projections of employment growth in base industries for the SCAG region. SCAG then projects total nonbase industry employment in the region. Each of the nonbase industries' historical share of the total number of regional jobs is compared to state figures.

Once the region's share of national employment growth is calculated, it must be allocated to cities and small areas. This process draws upon input from local jurisdictions throughout the subregions. Based upon the regional baseline forecast, the local input data is "controlled" to county level totals derived from regional models. There is great variation amongst the subregions on whether they agree with SCAG's forecasts. If a subregion does not agree, they take the SCAG projection and adjust it, either up or down, according to local land-use assumptions.

Appendix F—Association of Bay Area Governments (ABAG)

ABAG uses a period fertility rate, which indicates the childbearing rate of the total population of childbearing women (ages 15 to 44) at a particular point in time. ABAG believes this provides a more accurate picture of short-term changes in social and economic conditions than looking at the number of children a woman has produced by the end of her childbearing years. The regional period fertility rate has increased since the mid-1970s, but ABAG staff have assumed that it has peaked and that over the forecast period (1990 to 2020) it will decline. Period fertility rates are influenced by a number of factors. One factor is "delayed birth phenomenon" where certain segments of the population are waiting to have children. A second factor is changes in the racial and cultural composition of the region's population. This second factor drove up birth rates in the region during the 1980s and early 1990s.

Other demographic indicators include mortality rates, migration rates, racial and ethnic changes, and household size. Mortality rates have dropped slightly in recent years and are projected to continue declining. However, the actual number of deaths is increasing due to more people in the older age cohorts. ABAG ties migration rates to the economic performance of the area. Since the 1960s, migration rates have been very high, but ABAG forecasts a migration slowdown sometime early in the 21st century. Racial and ethnic changes are forecasted using DOF data. Both the Asian and Pacific Islander and Hispanic populations for the region are expected to increase. The White, non-Hispanic population is expected to decline. Household size is predicted to increase as influenced by three factors: more births, international immigration, and "doubling" up in response to high costs and an economy that is not distributing wealth throughout the population (Association of Bay Area Governments 1997).

Factors affecting economic growth take into account the Gross Regional Product (GRP) of the Bay Area, the Gross Domestic Product (GDP), and the accessibility of regional transportation systems. According to the Association of Bay Area Governments (1997), the highway and transit system assumptions are translated into estimates of peak period service levels by transportation facility type. Level-of-service estimates are, in turn, translated into estimates of travel time between locations. These measures of accessibility become key factors in projecting the location of housing with respect to job locations.

ABAG works closely with local governments in formulating models of projected growth. Among the assumptions used in creating the projections is that local governments' plans, policies, and regulations affect the use of land. ABAG developed the Local Policy Survey (LPS) in order to collect the latest information on current land use and development policies of local governments. Local development policies include general and specific plans, local zoning regulations, sewer hookup moratoriums, building permit allocation measures, and growth initiatives. According to ABAG, the LPS contains over 20,000 land unit records. After the preliminary numbers are created, local governments review the projections, which are modified where appropriate (Association of Bay Area Governments 1997).

Source: Association of Bay Area Governments. 1997. **Bay Area futures: where will we live and work?** Oakland, CA: Association of Bay Area Governments; 42 p.

Appendix G—Summary Tables

This appendix contains a series of tables contrasting data included in the regional and county chapters. Some tables present the data in a similar fashion to the text, while others present a different view of the information. These tables are designed to facilitate comparison between regions and counties within the socioeconomic assessment area.

The data support the following summary statements:

- In 1990, Los Angeles County had the highest population followed by San Diego County. In 2000, Orange County replaced San Diego County as the county with the second highest population. Also in 2000, San Bernardino surpassed Santa Clara County, Riverside County surpassed Alameda County, and Monterey County surpassed Santa Barbara County in population.

  (see Total County Population, 1990 and 2000)

- While an increase in population is expected through 2040 in all counties, the Central Valley Region is expected to have the largest increase in population across the forecast period.

  (see Population Projections, 1990-2040)

- The most ethnically and racially diverse area was the SCAG region in 1990, followed closely by the Central Valley. Hispanics of any race were a higher percentage of the regional population within the SCAG region, while the largest percents of non-Hispanic Blacks and non-Hispanic Asians were found in the ABAG region.

  (see Percent of Population in Various Ethnic/Racial Categories, 1990 and 2000)

- In 1990, the SCAG and ABAG regions had the highest percentages of population that were foreign-born. Among counties, San Francisco and Los Angeles reported approximately one-third of their populations as foreign-born and San Luis Obispo had the lowest percentage (less than one-tenth).

  (see Percent of Population that was Foreign-Born in 1990)

- Across regions, the Central Coast had the greatest percentage of persons age 5 and older speaking Spanish at home in 1990; the ABAG region had the highest percentage of persons age 5 and older speaking a language other than Spanish or English at home.

  (see Percent of Population Speaking Language Other Than English at Home in 1990)

- The proportion of LEP students in 1990 was highest in Imperial, Los Angeles, Monterey, Orange, and San Francisco Counties. Across regions, SCAG showed the highest proportion of students that were LEP.

  (see Percent of Public School Students that were LEP in 1990)

- The largest percentage of LEP students spoke Spanish in 24 of the counties, with San Francisco and Sacramento having languages other than Spanish represented in the majority LEP language(s).

  [see Limited-English-Proficient (LEP) Students in County Public School Districts, by Language, 1997-1998]

- Whites and American Indians are expected to decline as a proportion of the population in the majority of counties. Blacks vary by county in expected increase or decrease, falling within a range of 5 percent variation. The most dramatic changes are expected for Hispanics and Asian/Pacific Islanders; both groups are expected to increase as a proportion of the total population in the majority of counties. Hispanics are expected to increase the most in

four of the regions, while Asian/Pacific Islanders are projected for the greatest increase in the ABAG region.

(see Percent Race/Ethnicity and Percent Change in Counties, 1990-2040)

- Median ages are expected to vary across gender, race/ethnicity, and county through 2040. A trend of increasing median age, steepest among the American Indian, White, and Black populations is expected. The age structure among Hispanics and Asian/Pacific Islanders is much younger across the forecast period.

  (see Median Age by Gender and Race/Ethnicity, by County, 1990-2040)

- The largest share of construction dollars was for residential construction in incorporated areas from 1987 to 1998. An increase in construction within unincorporated areas was not evident across the decade of data examined, nor was it evident in areas approaching build-out. Annexation may account for a portion of this finding. The recession during the late 1980s and early 1990s was evident in reduced construction across all counties.

  (see Building Trends by Region and County, 1987-1998)

- The percent of owner-occupied housing units was highest in the Central Valley region, while the highest renter-occupied housing percent was in the SANDAG region. In 1990, the highest percent of vacant housing units was in the Central Coast region.

  (see Housing Units in 1990, Owner- and Renter-Occupied, and Vacant Units)

- The average median value of owner-occupied housing in 1990 was highest in the ABAG region, followed by the Central Coast region and SANDAG. Median rents parallel this same cost structure.

  (see Median Value and Median Rent in the 26 Counties)

- San Diego County had very few workers employed outside the county in 1990; conversely San Mateo and Marin Counties had almost half of their workers employed outside the county. Both counties are within the ABAG region, which reported the highest average region-wide (an average of 31.7 percent).

  (see Number of Workers 16 and Older and Percent Working Outside of County)

- There was little variation in the average number of vehicles per household in 1990 across regions, although the Central Coast had a slightly higher average. County variations were a bit larger, though still comparable.

  (see Average Number of Vehicles Per Household)

- The SCAG and Central Valley regions had the highest percent of workers driving alone to work, while the highest percent of workers using public transportation was in the ABAG region.

  (see Commuting Methods [to Work] by County and Region, Workers 16 and Older)

- The average travel time to work in minutes varied across regions, with the ABAG region having the highest average of 26.6 minutes. Average travel time was least in the Central Coast region.

  (see Average Commute Time to Work)

- Across all counties, elementary schools served the largest number of students in 1998-99, with the highest average enrollment at the high school level.

  (see Enrollment and Number of Schools in the 26 Counties)

- Academic performance among county schools participating in the Stanford 9 achievement test varied widely, with San Diego County showing the highest average performance across schools. Central Valley counties had the greatest numbers of schools performing below, or well below average.

  (see Academic Achievement by County, Measured by the Stanford 9)

- Water quality was variable by watershed, with many watersheds crossing over counties within a region, and across regions. The best water quality ratings were within the SANDAG and SCAG regions, the highest averages (indicating poorer quality) were within the Central Valley. Watershed quality averages are provided only for purposes of comparison and should be viewed with caution.

  (see Watershed Rating Within Each County, in 1999)

- Emissions for 1996 varied widely by type and level across counties. However, across all counties and regions a general trend for reduced emissions was forecasted, with the exception of PM and PM10 types.

  (see 1996 Estimated and 2010 Forecasted Annual Average Emissions)

Total County Population, 1990 and 2000

County	Planning Region	1990 Population[2]	2000 Population[3]	Rank by 2000 Population
San Diego	SANDAG	2,498,016	2,813,833	3
Regional Average	**SANDAG**	**2,498,016**	**2,813,833**	
Imperial	SCAG	109,303	142,361	24
Los Angeles	SCAG	8,863,164	9,519,338	1
Orange	SCAG	2,410,556	2,846,289	2
Riverside	SCAG	1,170,413	1,545,387	6
San Bernardino	SCAG	1,418,380	1,709,434	4
Ventura	SCAG	669,016	753,197	12
Regional Average	**SCAG**	**2,440,139**	**2,752,668**	
Monterey	Central Coast	355,660	401,762	17
San Luis Obispo	Central Coast	217,162	246,681	22
Santa Barbara	Central Coast	369,608	399,347	18
Santa Cruz	Central Coast	229,734	255,602	20
Regional Average	**Central Coast**	**293,041**	**325,848**	
Fresno	Central Valley	667,490	799,407	10
Kern[1]	Central Valley	544,981	661,645	14
Kings	Central Valley	101,469	129,461	25
Merced	Central Valley	178,403	210,554	23
Sacramento	Central Valley	1,041,219	1,223,499	8
San Benito	Central Valley	36,697	53,234	26
San Joaquin	Central Valley	480,628	563,598	15
Stanislaus	Central Valley	370,522	446,997	16
Regional Average	**Central Valley**	**427,676**	**511,049**	
Alameda[1]	ABAG	1,304,346	1,443,741	7
Contra Costa	ABAG	803,732	948,816	9
Marin	ABAG	230,096	247,289	21
San Francisco	ABAG	723,959	776,733	11
San Mateo	ABAG	649,623	707,161	13
Santa Clara	ABAG	1,497,577	1,682,585	5
Solano[1]	ABAG	339,471	394,542	19
Regional Average	**ABAG**	**792,686**	**885,838**	

[1] Revised Census figures were used.

[2] Source: United States Census Bureau 1990a.

[3] Source: United States Census Bureau 2000.

Population Projections, 1990-2040

SANDAG Region

San Diego

Source	1990	1995	2000	2005	2010	2020	2030	2040
U.S. Census	2,498,016[1]	-	2,813,833	-	-	-	-	-
DOF	2,511,369[2]	-	2,943,001	-	3,441,436	3,917,001	4,484,673	5,116,228
SANDAG	-	2,669,300	-	3,223,400	3,437,600	3,853,300	-	-

Source: United States Census Bureau 1990a and 2000, State of California Department of Finance 1998, San Diego Association of Governments 1999e

[1] Data from April 1.

[2] Data from July 1.

SCAG Region

Imperial

Source	1990	1994	2000	2005	2010	2015	2020	2030	2040
U.S. Census	109,303[1]	-	142,361	-	-	-	-	-	-
DOF	110,749[2]	-	154,549	-	221,585	-	298,700	394,008	504,220
SCAG[3]	109,303	138,470	148,980	171,772	207,305	240,812	280,341	-	-
IVAG	-	131,103	164,727	-	206,267	233,238	261,735	-	-

Source: United States Census Bureau 1990a and 2000, State of California Department of Finance 1998, Southern California Association of Governments 1998, Imperial Valley Association of Governments 1996

[1] Data from April 1.

[2] Data from July 1.

[3] Projections from SCAG are subject to change, based on the agency's final numbers, not yet finalized.

Los Angeles

Source	1990	1994	2000	2005	2010	2015	2020	2030	2040
U.S. Census	8,863,052[1]	-	9,519,338	-	-	-	-	-	-
DOF	8,901,987[2]	-	9,838,861	-	10,604,452	-	11,575,693	12,737,077	13,888,161
North LA County	-	451,400	590,200	728,500	873,600	1,031,700	1,213,400	-	-
LA City	-	3,656,700	3,845,300	4,051,200	4,298,900	4,578,700	4,890,900	-	-
Arroyo Verdugo	-	538,000	556,800	578,000	604,200	647,400	684,000	-	-
San Gabriel Valley COG	-	1,482,300	1,566,700	1,624,400	1,673,500	1,728,700	1,805,200	-	-
Westside Cities	-	227,000	233,600	238,000	242,400	248,200	253,100	-	-
South Bay Cities Association	-	818,900	857,700	872,200	884,600	902,900	925,600	-	-
Gateway Cities COG	-	1,982,000	2,086,500	2,149,700	2,196,900	2,275,500	2,368,600	-	-
Las Virgines/Malibu COG	-	75,300	81,700	87,800	94,600	100,400	108,300	-	-
SCAG Total[3]	-	9,231,600	9,818,500	10,329,800	10,868,700	11,513,500	12,249,100	-	-

Source: United States Census Bureau 1990a and 2000, State of California Department of Finance 1998, Southern California Association of Governments 1998

[1] Data from April 1.

[2] Data from July 1.

[3] Projections from SCAG are subject to change, based on the agency's final numbers, not yet available.

Orange

Source	1990	1994	2000	2005	2010	2015	2020	2030	2040
U.S. Census	2,410,668[1]	-	2,846,289	-	-	-	-	-	-
DOF	2,417,552[2]	-	2,833,190	-	3,163,776	-	3,431,869	3,752,003	4,075,328
SCAG[3]	-	2,595,300	2,859,100	3,005,700	3,105,500	3,165,400	3,244,800	-	-
CDR	-	-	2,865,830	3,009,275	3,105,324	3,165,418	3,244,607	-	-

Source: United States Census Bureau 1990a and 2000, State of California Department of Finance 1998, Southern California Association of Governments 1998, Center for Demographic Research 1997

[1] Data from April 1.

[2] Data from July 1.

[3] Projections from SCAG are subject to change, based on the agency's numbers, not yet finalized.

Riverside

Source	1990	1994	2000	2005	2010	2015	2020	2030	2040
U.S. Census	1,170,413[1]	-	1,545,387	-	-	-	-	-	-
DOF	1,194,623[2]	-	1,570,885	-	2,125,537	-	2,773,431	3,553,281	4,446,277
SCAG[3]	-	1,376,900	1,687,800	1,976,900	2,265,300	2,531,700	2,816,000	-	-
WRCOG	-	1,066,200	1,315,300	1,564,900	1,814,100	2,033,900	2,264,000	-	-
CVAG	-	310,700	372,300	412,100	450,900	497,600	551,800	-	-

Source: United States Census Bureau 1990a and 2000, State of California Department of Finance 1998, Southern California Association of Governments 1998, Western Riverside Council of Governments 1998, Coachella Valley Association of Governments 1998

[1] Data from April 1.

[2] Data from July 1.

[3] Projections from SCAG are subject to change, based on the agency's final numbers, not yet available.

San Bernardino

Source	1990	1994	2000	2005	2010	2015	2020	2030	2040
U.S. Census	1,418,380[1]	-	1,709,434	-	-	-	-	-	-
DOF	1,436,696[2]	-	1,727,452	-	2,187,807	-	2,747,213	3,425,554	4,202,152
SCAG[3]	-	1,558,600	1,772,700	2,005,400	2,239,600	2,512,800	2,829,800	-	-

Source: United States Census Bureau 1990a and 2000, State of California Department of Finance 1998, Southern California Association of Governments 1998

[1] Data from April 1.

[2] Data from July 1.

[3] Projections from SCAG are subject to change, based on the agency's final numbers, not yet available.

Ventura

Source	1990	1994	2000	2005	2010	2015	2020	2030	2040
U.S. Census	669,016[1]	-	753,197	-	-	-	-	-	-
DOF	670,274[2]	-	753,820	-	854,580	-	981,565	1,127,592	1,278,426
SCAG[3]	-	-	736,645	754,530	810,728	864,761	932,322	-	-
VCOG	-	-	739,778	766,648	816,801	861,740	909,693	-	-

Source: United States Census Bureau 1990a and 2000, State of California Department of Finance 1998, Southern California Association of Governments 1998, Ventura Council of Governments 1999

[1] Data from April 1.

[2] Data from July 1.

[3] Projections from SCAG are subject to change, based on the agency's final numbers, not yet available.

Central Coast Region

Monterey

Source	1990	1995	2000	2005	2010	2015	2020	2030	2040
U.S. Census	355,660[1]	-	401,762	-	-	-	-	-	-
DOF	357,364[2]	-	401,886	-	479,638	-	575,102	700,064	855,213
AMBAG	355,660	362,874	400,907	435,453	472,562	503,669	536,609	-	-

Source: United States Census Bureau 1990a and 2000, State of California Department of Finance 1998, Association of Monterey Bay Area Governments 1997

[1] Data from April 1.

[2] Data from July 1.

San Luis Obispo

Source	1990	1995	2000	2005	2010	2015	2020	2030	2040
U.S. Census	217,162[1]	-	246,681	-	-	-	-	-	-
DOF	217,944[2]	-	254,818	-	324,741	-	392,329	461,839	535,901
SLOCOG	217,162	227,225	245,025	267,336	287,888	305,329	322,610	-	-

Source: United States Census Bureau 1990a and 2000, State of California Department of Finance 1998, San Luis Obispo Council of Governments 1999

[1] Data from April 1.

[2] Data from July 1.

Santa Barbara

Source	1990	1995	2000	2005	2010	2015	2020	2030	2040
U.S. Census	369,608[1]	-	399,347	-	-	-	-	-	-
DOF	370,893[2]	-	412,071	-	468,457	-	552,846	658,223	779,247
SBCAG	369,608	394,165	416,214	437,398	457,441	479,321	-	-	-

Source: United States Census Bureau 1990a and 2000, State of California Department of Finance 1998, Santa Barbara County Association of Governments 1994

[1] Data from April 1.

[2] Data from July 1.

Santa Cruz

Source	1990	1995	2000	2005	2010	2015	2020	2030	2040
U.S. Census	229,734[1]	-	255,602	-	-	-	-	-	-
DOF	230,341[2]	-	260,248	-	309,206	-	367,196	430,078	497,319
AMBAG	229,734	241,935	257,737	270,060	281,714	292,988	303,646	-	-

Source: United States Census Bureau 1990a and 2000, State of California Department of Finance 1998, Association of Monterey Bay Area Governments 1997

[1] Data from April 1.

[2] Data from July 1.

Central Valley Region

Fresno

Source	1990	2000	2005	2010	2015	2020	2025	2030	2040
U.S. Census	667,490[1]	799,407	-	-	-	-	-	-	-
DOF	673,608[2]	811,179	-	953,457	-	1,114,403	-	1,308,767	1,521,360
Fresno COG	-	821,797	908,338	1,002,153	1,096,227	1,195,465	1,301,240	-	-

Source: United States Census Bureau 1990a and 2000, State of California Department of Finance 1998, Council of Fresno County Governments 2000

[1] Data from April 1.

[2] Data from July 1.

Kern

Source	1990	2000	2010	2020	2030	2040
U.S. Census	544,981[1]	661,645	-	-	-	-
DOF	549,531[2]	677,372	859,818	1,073,748	1,327,013	1,623,671

Source: United States Census Bureau 1990a and 2000, State of California Department of Finance 1998

[1] Data from April 1.

[2] Data from July 1.

Kings

Source	1990	2000	2010	2020	2030	2040
U.S. Census	101,469[1]	129,461	-	-	-	-
DOF	102,238[2]	126,672	154,617	186,611	223,914	265,944

Source: United States Census Bureau 1990a and 2000, State of California Department of Finance 1998

1 Data from April 1.

2 Data from July 1.

Merced

Source	1990	1995	2000	2005	2010	2015	2020	2025	2030	2040
U.S. Census	178,403[1]	-	210,554	-	-	-	-	-	-	-
DOF	180,182[2]	-	215,256	-	264,420	-	319,785	-	385,120	460,020
MCAG	178,403	197,900	215,256	242,846	273,923	304,784	337,935	373,170	-	-

Source: United States Census Bureau 1990a and 2000, State of California Department of Finance 1998, Merced County Association of Governments 2000

[1] Data from April 1.

[2] Data from July 1.

Sacramento

Source	1990	2000	2005	2010	2015	2020	2022	2030	2040
U.S. Census	1,041,219[1]	1,223,499	-	-	-	-	-	-	-
DOF	1,049,010[2]	1,212,527	-	1,436,286	-	1,651,765	-	1,884,210	2,122,769
SACOG	-	1,203,900	1,306,350	1,431,500	1,555,233	1,620,933	1,646,283	-	-

Source: United States Census Bureau 1990a and 2000, State of California Department of Finance 1998, Sacramento Area Council of Governments 1999

[1] Data from April 1.

[2] Data from July 1.

San Benito

Source	1990	1995	2000	2005	2010	2015	2020	2030	2040
U.S. Census	36,697[1]	-	53,234	-	-	-	-	-	-
DOF	36,970[2]	-	51,853	-	68,040	-	82,276	97,941	114,922
AMBAG	36,697	42,473	50,163	57,313	64,830	72,648	80,653	-	-

Source: United States Census Bureau 1990a and 2000, State of California Department of Finance 1998, Association of Monterey Bay Area Governments 1997

[1] Data from April 1.

[2] Data from July 1.

San Joaquin

Source	1990	1995	2000	2005	2010	2015	2020	2030	2040
U.S. Census	480,628[1]	-	563,598	-	-	-	-	-	-
DOF	483,817[2]	-	579,712	-	725,868	-	884,375	1,060,442	1,250,610
SJCOG	483,800	533,393	582,704	635,415	687,930	752,080	821,851	-	-

Source: United States Census Bureau 1990a and 2000, State of California Department of Finance 1998, San Joaquin Council of Governments 2000

[1] Data from April 1.

[2] Data from July 1.

Stanislaus

Source	1990	2000	2010	2020	2030	2040
U.S. Census	370,522[1]	446,997	-	-	-	-
DOF	375,089[2]	459,025	585,519	708,950	846,998	998,906

Source: United States Census Bureau 1990a and 2000, State of California Department of Finance 1998

[1] Data from April 1.

[2] Data from July 1.

ABAG Region

Alameda

Source	1990	1995	2000	2005	2010	2015	2020	2030	2040
U.S. Census	1,304,346[1]	-	1,443,741	-	-	-	-	-	-
DOF	1,284,825[2]	-	1,470,155	-	1,654,485	-	1,793,139	1,938,547	2,069,530
ABAG	1,276,702	1,345,900	1,462,700	1,573,200	1,615,900	1,641,700	1,671,700	-	-

Source: United States Census Bureau 1990a and 2000, State of California Department of Finance 1998, Association of Bay Area Governments 1999

[1] Data from April 1.

[2] Data from July 1.

Contra Costa

Source	1990	1995	2000	2005	2010	2015	2020	2030	2040
U.S. Census	803,732[1]	-	948,816	-	-	-	-	-	-
DOF	807,608[2]	-	931,946	-	1,025,857	-	1,104,725	1,189,501	1,264,400
ABAG	803,732	865,300	941,900	1,021,500	1,076,800	1,124,900	1,169,000	-	-

Source: United States Census Bureau 1990a and 2000, State of California Department of Finance 1998, Association of Bay Area Governments 1999

[1] Data from April 1.

[2] Data from July 1.

Marin

Source	1990	1995	2000	2005	2010	2015	2020	2030	2040
U.S. Census	230,096[1]	-	247,289	-	-	-	-	-	-
DOF	230,155[2]	-	248,397	-	258,569	-	268,630	282,864	297,307
ABAG	230,096	238,500	250,400	259,900	267,900	272,400	275,400	-	-

Source: United States Census Bureau 1990a and 2000, State of California Department of Finance 1998, Association of Bay Area Governments 1999

[1] Data from April 1.

[2] Data from July 1.

San Francisco

Source	1990	1995	2000	2005	2010	2015	2020	2030	2040
U.S. Census	723,959[1]	-	776,733	-	-	-	-	-	-
DOF	727,873[2]	-	792,049	-	782,469	-	750,904	724,863	681,924
ABAG	723,959	751,700	799,000	815,600	818,800	812,900	808,800	-	-

Source: United States Census Bureau 1990a and 2000, State of California Department of Finance 1998, Association of Bay Area Governments 1999

[1] Data from April 1.

[2] Data from July 1.

San Mateo

Source	1990	1995	2000	2005	2010	2015	2020	2030	2040
U.S. Census	649,623[1]	-	707,161	-	-	-	-	-	-
DOF	651,401[2]	-	747,061	-	815,532	-	855,506	907,423	953,089
ABAG	649,623	687,500	737,100	767,100	779,700	795,700	809,800	-	-

Source: United States Census Bureau 1990a and 2000, State of California Department of Finance 1998, Association of Bay Area Governments 1999

[1] Data from April 1.

[2] Data from July 1.

Santa Clara

Source	1990	1995	2000	2005	2010	2015	2020	2030	2040
U.S. Census	1,497,577[1]	-	1,682,585	-	-	-	-	-	-
DOF	1,504,402[2]	-	1,763,252	-	2,021,417	-	2,196,750	2,400,564	2,595,253
ABAG	1,497,577	1,599,100	1,755,300	1,854,000	1,919,000	1,970,600	2,016,700	-	-

Source: United States Census Bureau 1990a and 2000, State of California Department of Finance 1998, Association of Bay Area Governments 1999

[1] Data from April 1.

[2] Data from July 1.

Solano

Source	1990	1995	2000	2005	2010	2015	2020	2030	2040
U.S. Census	339,471[1]	-	394,542	-	-	-	-	-	-
DOF	344,116[2]	-	399,841	-	479,136	-	552,105	625,619	698,430
ABAG	339,471	370,700	401,300	450,300	481,700	514,800	547,400	-	-

Source: United States Census Bureau 1990a and 2000, State of California Department of Finance 1998, Association of Bay Area Governments 1999

[1] Data from April 1.

[2] Data from July 1.

Percent of Population in Various Ethnic/Racial Categories, 1990 and 2000 (Note: Numbers were rounded so percents may not total 100.)

SANDAG Region

County	Census year	% Non-Hispanic White	% Hispanic all races	% Non-Hispanic Black	% Non-Hispanic Asian	% Non-Hispanic American Indian	% Non-Hispanic other	% Non-Hispanic two or more races
San Diego	1990	65.4	20.4	6.0	7.4	0.6	0.2	N/A
	2000	55.0	26.7	5.5	9.1	0.5	0.2	2.9

Source: United States Census Bureau 1990a, 2000

SCAG Region

County	Census year	% Non-Hispanic White	% Hispanic all races	% Non-Hispanic Black	% Non-Hispanic Asian	% Non-Hispanic American Indian	% Non-Hispanic other	% Non-Hispanic two or more races
Imperial	1990	29.0	65.8	2.1	1.5	1.4	0.1	N/A
	2000	20.2	72.2	3.6	1.7	1.2	0.1	0.9
Los Angeles	1990	40.8	37.8	10.5	10.2	0.3	0.2	N/A
	2000	31.1	44.6	9.5	12.1	0.3	0.2	2.3
Orange	1990	64.5	23.4	1.6	10.0	0.4	0.1	N/A
	2000	51.3	30.8	1.5	13.8	0.3	0.2	2.3
Riverside	1990	64.4	26.3	5.1	3.3	0.7	0.2	N/A
	2000	51.0	36.2	6.0	3.8	0.7	0.2	2.2
San Bernardino	1990	60.8	26.7	7.7	3.9	0.7	0.2	N/A
	2000	44.0	39.2	8.8	4.8	0.6	0.2	2.5
Ventura	1990	65.9	26.4	2.2	4.9	0.5	0.1	N/A
	2000	56.8	33.4	1.8	5.4	0.4	0.1	2.0

Source: United States Census Bureau 1990a, 2000

Central Coast Region

County	Census year	% Non-Hispanic White	% Hispanic all Races	% Non-Hispanic Black	% Non-Hispanic Asian	% Non-Hispanic American Indian	% Non-Hispanic other	% Non-Hispanic two or more races
Monterey	1990	52.3	33.6	6.0	7.1	0.6	0.3	N/A
	2000	40.3	46.8	3.5	6.2	0.4	0.3	2.5
San Luis Obispo	1990	81.2	13.3	2.0	2.7	0.8	0.1	N/A
	2000	76.1	16.3	1.9	2.7	0.6	0.1	2.2
Santa Barbara	1990	66.1	26.6	2.5	4.1	0.6	0.2	N/A
	2000	56.9	34.2	2.1	4.1	0.5	0.1	2.1
Santa Cruz	1990	74.5	20.4	1.0	3.4	0.6	0.2	N/A
	2000	65.5	26.8	0.8	3.4	0.5	0.3	2.6

Source: United States Census Bureau 1990a, 2000

Central Valley Region

County	Census year	% Non-Hispanic White	% Hispanic all races	% Non-Hispanic Black	% Non-Hispanic Asian	% Non-Hispanic American Indian	% Non-Hispanic other	% Non-Hispanic two or more races
Fresno	1990	50.7	35.5	4.7	8.1	0.8	0.3	N/A
	2000	39.7	44.0	5.0	8.0	0.8	0.2	2.3
Kern[1]	1990	62.6	27.9	5.3	2.7	1.0	0.2	N/A
	2000	49.5	38.4	5.7	3.3	0.9	0.2	2.1
Kings	1990	53.6	34.1	7.6	3.4	0.9	0.4	N/A
	2000	41.6	43.6	8.0	3.1	1.0	0.2	2.4
Merced	1990	54.2	32.6	4.4	7.9	0.6	0.3	N/A
	2000	40.6	45.3	3.6	6.8	0.5	0.2	2.9
Sacramento	1990	69.3	11.7	9.0	8.8	1.0	0.2	N/A
	2000	57.8	16.0	9.7	11.4	0.7	0.3	4.2
San Benito	1990	51.2	45.8	0.5	1.8	0.6	0.2	N/A
	2000	46.0	47.9	0.9	2.3	0.5	0.1	2.2
San Joaquin	1990	58.8	23.4	5.2	11.6	0.8	0.2	N/A
	2000	47.4	30.5	6.4	11.3	0.6	0.2	3.5
Stanislaus	1990	70.5	21.8	1.7	4.9	0.9	0.2	N/A
	2000	57.3	31.7	2.4	4.4	0.8	0.2	3.2

Source: United States Census Bureau 1990a, 2000

ABAG Region

County	Census year	% Non-Hispanic White	% Hispanic all races	% Non-Hispanic Black	% Non-Hispanic Asian	% Non-Hispanic American Indian	% Non-Hispanic other	% Non-Hispanic two or more races
Alameda[1]	1990	52.1	13.9	17.1	14.2	0.5	0.2	N/A
	2000	40.9	19.0	14.6	20.9	0.4	0.3	3.9
Contra Costa	1990	70.0	11.4	9.1	9.2	0.6	0.2	N/A
	2000	57.9	17.7	9.2	11.2	0.4	0.3	3.4
Marin	1990	84.6	7.8	3.3	3.9	0.3	0.1	N/A
	2000	78.6	11.1	2.8	4.6	0.3	0.3	2.4
San Francisco	1990	46.6	13.9	10.5	28.4	0.4	0.2	N/A
	2000	43.6	14.1	7.6	31.1	0.3	0.3	3.0
San Mateo	1990	60.4	17.7	5.2	16.3	0.4	0.2	N/A
	2000	49.8	21.9	3.4	21.1	0.2	0.3	3.3
Santa Clara	1990	58.1	21.0	3.5	16.8	0.5	0.2	N/A
	2000	44.2	24.0	2.6	25.7	0.3	0.2	3.0
Solano[1]	1990	61.1	13.4	12.9	11.9	0.7	0.2	N/A
	2000	49.2	17.6	14.6	13.2	0.6	0.2	4.5

Source: United States Census Bureau 1990a, 2000

[1]These are the revised 1990 United States Census numbers.

Percent of Population that was Foreign-Born in 1990

County	Planning Region	Percent of Population	Regional Average
San Diego	SANDAG	17.2	**17.2**
Imperial	SCAG	28.9	
Los Angeles	SCAG	32.7	
Orange	SCAG	23.9	
Riverside	SCAG	14.8	
San Bernardino	SCAG	13.2	
Ventura	SCAG	17.0	**21.8**
Monterey	Central Coast	21.6	
San Luis Obispo	Central Coast	7.5	
Santa Barbara	Central Coast	16.9	
Santa Cruz	Central Coast	14.0	**15.0**
Fresno	Central Valley	17.8	
Kern	Central Valley	12.2	
Kings	Central Valley	14.1	
Merced	Central Valley	19.8	
Sacramento	Central Valley	10.0	
San Benito	Central Valley	17.1	
San Joaquin	Central Valley	16.4	
Stanislaus	Central Valley	14.3	**15.2**
Alameda	ABAG	18.0	
Contra Costa	ABAG	13.3	
Marin	ABAG	13.3	
San Francisco	ABAG	34.0	
San Mateo	ABAG	25.4	
Santa Clara	ABAG	23.2	
Solano	ABAG	13.0	**20.0**

Source: United States Census Bureau 1990b

Percent of Population Speaking Language other than English at Home in 1990

SANDAG Region

County	Total Population persons age 5 and older	Persons age 5 and older speaking language other than English at home: Total speaking language other than English at home	Persons age 5 and older speaking Spanish at home	Persons age 5 and older speaking language other than Spanish or English at home
San Diego	2,304,648	578,029	370,386	207,643
% of total	100.0	25.1	16.1	9.0
% of non-English speakers		100.0	64.1	35.9

Source: United States Census Bureau 1990b

SCAG Region

County	Total Population persons age 5 and older	Persons age 5 and older speaking language other than English at home: Total speaking language other than English at home	Persons age 5 and older speaking Spanish at home	Persons age 5 and older speaking language other than Spanish or English at home
Imperial	99,306	63,363	61,300	2,063
% of total	100.0	63.8	61.7	2.1
% of non-English speakers		100.0	96.7	3.3
Los Angeles	8,135,401	3,694,768	2,564,775	1,129,993
% of total	100.0	45.4	31.5	13.9
% of non-English speakers		100.0	69.4	30.6
Orange	2,227,217	689,543	421,287	268,256
% of total	100.0	31.0	18.9	12.0
% of non-English speakers		100.0	61.1	38.9
Riverside	1,066,829	264,828	210,390	54,438
% of total	100.0	24.8	19.7	5.1
% of non-English speakers		100.0	79.4	20.6
San Bernardino	1,281,149	300,019	228,238	71,781
% of total	100.0	23.4	17.8	5.6
% of non-English speakers		100.0	76.1	23.9
Ventura	615,479	161,697	123,603	38,094
% of total	100.0	26.3	20.1	6.2
% of non-English speakers		100.0	76.4	23.6
Regional Total	13,425,381	5,174,218	3,609,593	1,564,625
% of total	100.0	38.5	26.9	11.7
% of non-English speakers		100.0	69.8	30.2

Source: United States Census Bureau 1990b

Central Coast Region

County	Total Population persons age 5 and older	Persons age 5 and older speaking language other than English at home: Total speaking language other than English at home	Persons age 5 and older speaking Spanish at home	Persons age 5 and older speaking language other than Spanish or English at home
Monterey	324,434	115,048	86,066	28,982
% of total	100.0	35.5	26.5	8.9
% of non-English speakers		100.0	74.8	25.2
San Luis Obispo	203,396	24,647	16,235	8,412
% of total	100.0	12.1	8.0	4.1
% of non-English speakers		100.0	65.9	34.1
Santa Barbara	343,010	86,473	65,679	20,794
% of total	100.0	25.2	19.1	6.1
% of non-English speakers		100.0	76.0	24.0
Santa Cruz	213,400	45,208	33,281	11,927
% of total	100.0	21.2	15.6	5.6
% of non-English speakers		100.0	73.6	26.4
Regional Total	1,084,240	271,376	201,261	70,115
% of total	100.0	25.0	18.6	6.5
% of non-English speakers		100.0	74.2	25.8

Source: United States Census Bureau 1990b

Central Valley Region

County	Total Population persons age 5 and older	Persons age 5 and older speaking language other than English at home: Total speaking language other than English at home	Persons age 5 and older speaking Spanish at home	Persons age 5 and older speaking language other than Spanish or English at home
Fresno	605,363	213,711	156,144	57,567
% of total	100.0	35.3	25.8	9.5
% of non-English speakers		100.0	73.1	26.9
Kern	491,220	120,739	102,465	18,274
% of total	100.0	24.6	20.9	3.7
% of non-English speakers		100.0	84.9	15.1
Kings	92,063	28,540	22,772	5,768
% of total	100.0	31.0	24.7	6.3
% of non-English speakers		100.0	79.8	20.2
Merced	160,413	57,697	40,056	17,641
% of total	100.0	36.0	25.0	11.0
% of non-English speakers		100.0	69.4	30.6
Sacramento	957,591	155,840	63,168	92,672
% of total	100.0	16.3	6.6	9.7
% of non-English speakers		100.0	40.5	59.5

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San Benito	33,548	12,738	11,374	1,364
% of total	100.0	38.0	33.9	4.1
% of non-English speakers		100.0	89.3	10.7
San Joaquin	439,210	122,574	67,234	55,340
% of total	100.0	27.9	15.3	12.6
% of non-English speakers		100.0	54.9	45.1
Stanislaus	336,788	84,304	54,010	30,294
% of total	100.0	25.0	16.0	9.0
% of non-English speakers		100.0	64.1	35.9
Regional Total	3,116,196	796,143	517,223	278,920
% of total	100.0	25.5	16.6	9.0
% of non-English speakers		100.0	65.0	35.0

Source: United States Census Bureau 1990b

ABAG Region

		Persons age 5 and older speaking language other than English at home		
County	**Total Population persons age 5 and older**	**Total speaking language other than English at home**	**Persons age 5 and older speaking Spanish at home**	**Persons age 5 and older speaking language other than Spanish or English at home**
Alameda	1,183,716	294,079	106,032	188,047
% of total	100.0	24.8	9.0	15.9
% of non-English speakers		100.0	36.1	63.9
Contra Costa	743,500	134,159	55,291	78,868
% of total	100.0	18.0	7.4	10.6
% of non-English speakers		100.0	41.2	58.8
Marin	216,487	32,469	13,102	19,367
% of total	100.0	15.0	6.1	8.9
% of non-English speakers		100.0	40.4	59.6
San Francisco	688,689	292,093	75,933	216,160
% of total	100.0	42.4	11.0	31.4
% of non-English speakers		100.0	26.0	74.0
San Mateo	605,676	194,482	82,509	111,973
% of total	100.0	32.1	13.6	18.5
% of non-English speakers		100.0	42.4	57.6
Santa Clara	1,386,450	447,790	188,648	259,142
% of total	100.0	32.3	13.6	18.7
% of non-English speakers		100.0	42.1	57.9
Solano	310,769	59,927	25,312	34,615
% of total	100.0	19.3	8.1	11.1
% of non-English speakers		100.0	42.2	57.8
Regional Total	5,135,287	1,454,999	546,827	908,172
% of total	100.0	28.3	10.6	17.7
% of non-English speakers		100.0	37.6	62.4

Source: United States Census Bureau 1990b

Percent of Public School Students that were Limited-English-Proficient (LEP) in 1990

County	Planning Region	Percent of Students	Regional Average
San Diego	SANDAG	22.1	**22.1**
Imperial	SCAG	46.2	
Los Angeles	SCAG	35.4	
Orange	SCAG	30.1	
Riverside	SCAG	19.1	
San Bernardino	SCAG	16.2	
Ventura	SCAG	20.6	**27.9**
Monterey	Central Coast	34.8	
San Luis Obispo	Central Coast	8.3	
Santa Barbara	Central Coast	27.1	
Santa Cruz	Central Coast	26.6	
Monterey	Central Coast	34.8	**26.3**
Fresno	Central Valley	27.0	
Kern	Central Valley	18.6	
Kings	Central Valley	16.0	
Merced	Central Valley	31.8	
Sacramento	Central Valley	16.9	
San Benito	Central Valley	16.2	
San Joaquin	Central Valley	21.2	
Stanislaus	Central Valley	18.4	**20.8**
Alameda	ABAG	19.0	
Contra Costa	ABAG	10.5	
Marin	ABAG	9.5	
San Francisco	ABAG	30.8	
San Mateo	ABAG	21.5	
Santa Clara	ABAG	22.2	
Solano	ABAG	8.7	**17.5**

Source: California Department of Education 1998b

Limited-English-Proficient (LEP) Students in County Public School Districts, by Language, 1997-1998 (Categories with 1 Percent or More are Listed) – SANDAG Region

San Diego	# of Students	Percent of Total LEP
Spanish	85,299	83.6
Pilipino	3,070	3.0
Vietnamese	3,068	3.0
Lao	1,181	1.2
Khmer	1,093	1.1
Other	8,278	8.1

Source: California Department of Education 1998b

Limited-English-Proficient (LEP) Students in County Public School Districts, by Language, 1997-1998 (Categories with 1 Percent or More are Listed) – SCAG Region

Imperial	# of Students	Percent of Total LEP
Spanish	14,833	99.0
Other	143	1.0
Los Angeles	**# of Students**	**Percent of Total LEP**
Spanish	491,094	87.5
Armenian	12,721	2.3
Korean	8,740	1.6
Cantonese	8,115	1.4
Khmer	6,213	1.1
Vietnamese	6,207	1.1
Mandarin	5,454	1.0
Other	22,749	4.1
Orange	**# of Students**	**Percent of Total LEP**
Spanish	111,873	81.2
Vietnamese	13,089	9.5
Korean	2,965	2.2
Other	9,908	7.2
Riverside	**# of Students**	**Percent of Total LEP**
Spanish	51,495	94.5
Other	2,982	5.5
San Bernardino	**# of Students**	**Percent of Total LEP**
Spanish	52,178	91.4
Vietnamese	1,173	2.1
Khmer	553	1.0
Other	3,172	5.6
Ventura	**# of Students**	**Percent of Total LEP**
Spanish	25,719	95.1
Pilipino	358	1.3
Other	956	3.5

Source: California Department of Education 1998b

Limited-English-Proficient (LEP) Students in County Public School Districts, by Language, 1997-1998 (Categories with 1 Percent or More are Listed) – Central Coast Region

Monterey	**# of Students**	**Percent of Total LEP**
Spanish	22,543	94.8
Pilipino	335	1.4
Vietnamese	291	1.2
Other	610	2.6
San Luis Obispo	**# of Students**	**Percent of Total LEP**
Spanish	2,873	95.7
Other	130	4.3
Santa Barbara	**# of Students**	**Percent of Total LEP**
Spanish	16,123	93.9
Hmong	238	1.4
Other	812	4.7
Santa Cruz	**# of Students**	**Percent of Total LEP**
Spanish	10,290	97.6
Other	258	2.4

Source: California Department of Education 1998b

Limited-English-Proficient (LEP) Students in County Public School Districts, by Language, 1997-1998 (Categories with 1 Percent or More are Listed) – Central Valley Region

Fresno	**# of Students**	**Percent of Total LEP**
Spanish	31,068	65.8
Hmong	10,289	21.8
Lao	1,672	3.5
Khmer	1,615	3.4
Punjabi	713	1.5
Other	1,874	4.0

Kern	**# of Students**	**Percent of Total LEP**
Spanish	24,903	94.5
Pilipino	295	1.1
Other	1,151	4.4

Kings	**# of Students**	**Percent of Total LEP**
Spanish	3,761	94.6
Hmong	102	2.6
Other	113	2.8

Merced	**# of Students**	**Percent of Total LEP**
Spanish	10,989	70.5
Hmong	3,349	21.5
Mien	402	2.6
Punjabi	300	1.9
Lao	161	1.0
Other	388	2.5

Sacramento	**# of Students**	**Percent of Total LEP**
Spanish	11,151	32.2
Hmong	6,684	19.3
Vietnamese	2,670	7.7
Russian	2,588	7.5
Cantonese	2,286	6.6
Mien	1,761	5.1
Lao	1,002	2.9
Punjabi	594	1.7
Pilipino	562	1.6
Armenian	356	1.0
Other	5,030	14.5

San Benito	**# of Students**	**Percent of Total LEP**
Spanish	1,668	98.4
Other	27	1.6

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San Joaquin	# of Students	Percent of Total LEP
Spanish	12,526	53.4
Khmer	3,639	15.5
Hmong	2,717	11.6
Vietnamese	1,502	6.4
Lao	701	3.0
Punjabi	385	1.6
Pilipino	361	1.5
Other	1,622	6.9

Stanislaus	# of Students	Percent of Total LEP
Spanish	13,095	77.7
Khmer	1,070	6.4
Lao	375	2.2
Hmong	373	2.2
Punjabi	282	1.7
Other	1,648	9.8

Source: California Department of Education 1998b

Limited-English-Proficient (LEP) Students in County Public School Districts, by Language, 1997-1998 (Categories with 1 Percent or More are Listed) – ABAG Region

Alameda	# of Students	Percent of Total LEP
Spanish	20,492	51.4
Cantonese	4,335	10.9
Vietnamese	2,786	7.0
Pilipino	1,805	4.5
Khmer	1,296	3.2
Farsi	1,098	2.8
Punjabi	1,091	2.7
Mien	922	2.3
Mandarin	899	2.3
Korean	525	1.3
Arabic	505	1.3
Other	4,128	10.4

Contra Costa	# of Students	Percent of Total LEP
Spanish	11,008	69.5
Pilipino	681	4.3
Mien	589	3.7
Vietnamese	506	3.2
Punjabi	362	2.3
Lao	316	2.0
Cantonese	296	1.9
Farsi	268	1.7
Korean	172	1.1
Mandarin	162	1.0
Other	1,472	9.3

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Marin	**# of Students**	**Percent of Total LEP**
Spanish	2,122	79.0
Vietnamese	106	3.9
Korean	36	1.3
Farsi	31	1.2
Other	390	14.5

San Francisco	**# of Students**	**Percent of Total LEP**
Spanish	6,991	36.6
Cantonese	6,679	35.0
Pilipino	1,010	5.3
Vietnamese	652	3.4
Russian	645	3.4
Mandarin	422	2.2
Khmer	262	1.4
Arabic	214	1.1
Korean	201	1.1
Other	2,023	10.6

San Mateo	**# of Students**	**Percent of Total LEP**
Spanish	14,640	73.5
Pilipino	969	4.9
Cantonese	657	3.3
Mandarin	375	1.9
Arabic	222	1.1
Korean	204	1.0
Other	2,858	14.3

Santa Clara	**# of Students**	**Percent of Total LEP**
Spanish	32,444	57.9
Vietnamese	9,109	16.3
Pilipino	2,542	4.5
Cantonese	1,406	2.5
Mandarin	1,319	2.4
Punjabi	1,174	2.1
Khmer	1,051	1.9
Korean	898	1.6
Other	6,049	10.8

Solano	**# of Students**	**Percent of Total LEP**
Spanish	4,205	68.7
Pilipino	741	12.1
Vietnamese	204	3.3
Punjabi	152	2.5
Mien	106	1.7
Hmong	84	1.4
Lao	71	1.2
Other	557	9.1

Source: California Department of Education 1998b

Percent Race/Ethnicity and Percent Change in Counties, 1990-2040

SANDAG Region

San Diego

Racial/ethnic group	Year 1990	2000	2010	2020	2030	2040	Cumulative percent change
White	65.37	59.31	53.80	48.36	43.22	38.58	
	-	-6.06	-5.51	-5.44	-5.15	-4.63	-26.78
Hispanic	20.57	25.02	29.14	33.57	38.07	42.40	
	-	4.44	4.13	4.42	4.51	4.33	21.83
Asian/Pacific Islander	7.45	9.07	10.65	11.78	12.73	13.34	
	-	1.62	1.58	1.13	0.95	0.61	5.89
Black	6.01	6.05	5.90	5.82	5.55	5.30	
	-	0.04	-0.15	-0.08	-0.27	-0.26	-0.71
American Indian	0.60	0.55	0.51	0.47	0.43	0.38	
	-	-0.05	-0.04	-0.03	-0.05	-0.05	-0.23

Source: State of California Department of Finance 1998

SCAG Region

Imperial

Racial/ethnic group	Year 1990	2000	2010	2020	2030	2040	Cumulative percent change
White	28.98	21.75	20.08	18.07	16.26	14.86	
	-	-7.23	-1.67	-2.01	-1.81	-1.40	-14.13
Hispanic	66.04	72.09	73.69	75.75	77.79	79.46	
	-	6.05	1.59	2.07	2.04	1.68	13.43
Asian/Pacific Islander	1.49	1.65	2.47	2.91	3.14	3.21	
	-	0.16	0.82	0.45	0.22	0.08	1.72
Black	2.07	3.55	2.99	2.62	2.29	2.03	
	-	1.48	-0.56	-0.37	-0.33	-0.26	-0.04
American Indian	1.42	0.96	0.77	0.64	0.53	0.43	
	-	-0.46	-0.19	-0.13	-0.12	-0.09	-0.99

Source: State of California Department of Finance 1998

Los Angeles

Racial/ethnic group	Year 1990	2000	2010	2020	2030	2040	Cumulative percent change
White	40.81	32.15	26.75	22.72	19.25	15.87	
	-	-8.66	-5.40	-4.03	-3.47	-3.38	-24.94
Hispanic	38.01	45.56	50.99	55.28	59.52	63.87	
	-	7.55	5.42	4.30	4.24	4.35	25.86
Asian/Pacific Islander	10.32	12.58	13.73	14.31	14.58	14.57	
	-	2.26	1.16	0.58	0.26	0.00	4.25
Black	10.53	9.43	8.26	7.44	6.44	5.50	
	-	-1.10	-1.17	-0.82	-1.00	-0.94	-5.03
American Indian	0.33	0.28	0.27	0.25	0.22	0.18	
	-	-0.04	-0.01	-0.02	-0.03	-0.03	-0.14

Source: State of California Department of Finance 1998

Orange

Racial/ethnic group	Year 1990	2000	2010	2020	2030	2040	Cumulative percent change
White	64.34	55.08	47.48	40.59	33.81	27.12	
	-	-9.26	-7.60	-6.89	-6.78	-6.69	-37.22
Hispanic	23.60	29.86	34.12	38.49	42.99	47.80	
	-	6.26	4.26	4.37	4.50	4.81	24.20
Asian/Pacific Islander	10.07	13.20	16.50	18.94	21.23	23.13	
	-	3.13	3.30	2.45	2.29	1.90	13.06
Black	1.63	1.56	1.58	1.64	1.64	1.63	
	-	-0.07	0.03	0.06	0.00	-0.01	0.00
American Indian	0.35	0.31	0.32	0.33	0.32	0.31	
	-	-0.05	0.01	0.01	0.00	-0.01	-0.04

Source: State of California Department of Finance 1998

Riverside

Racial/ethnic group	Year 1990	2000	2010	2020	2030	2040	Cumulative percent change
White	64.47	59.33	51.35	44.59	38.70	33.74	
	-	-5.14	-7.97	-6.76	-5.89	-4.96	-30.73
Hispanic	26.38	30.05	36.40	42.18	47.54	52.30	
	-	3.68	6.35	5.78	5.37	4.75	25.92
Asian/Pacific Islander	3.30	4.43	6.04	6.98	7.64	8.01	
	-	1.12	1.62	0.94	0.66	0.37	4.71
Black	5.13	5.42	5.46	5.54	5.46	5.34	
	-	0.29	0.04	0.08	-0.09	-0.12	0.21
American Indian	0.72	0.77	0.74	0.70	0.66	0.61	
	-	0.05	-0.03	-0.03	-0.05	-0.05	-0.11

Source: State of California Department of Finance 1998

San Bernardino

Racial/ethnic group	Year 1990	2000	2010	2020	2030	2040	Cumulative percent change
White	60.79	52.69	43.78	36.99	31.08	26.01	
	-	-8.09	-8.92	-6.78	-5.91	-5.07	-34.78
Hispanic	26.84	32.64	39.82	45.78	51.42	56.53	
	-	5.80	7.19	5.96	5.64	5.10	29.69
Asian/Pacific Islander	3.94	5.19	6.58	7.33	7.89	8.20	
	-	1.25	1.38	0.76	0.56	0.30	4.26
Black	7.73	8.82	9.22	9.34	9.12	8.84	
	-	1.09	0.39	0.13	-0.22	-0.28	1.11
American Indian	0.70	0.65	0.61	0.55	0.48	0.42	
	-	-0.05	-0.05	-0.06	-0.06	-0.06	-0.28

Source: State of California Department of Finance 1998

Ventura

Racial/ethnic group	1990	2000	2010	2020	2030	2040	Cumulative percent change
			Year				
White	65.84	59.98	54.82	50.48	46.06	41.83	
	-	-5.86	-5.16	-4.34	-4.42	-4.23	-24.01
Hispanic	26.56	30.91	34.40	37.48	40.82	44.20	
	-	4.36	3.48	3.08	3.34	3.38	17.65
Asian/Pacific Islander	4.91	6.41	8.10	9.35	10.49	11.40	
	-	1.46	1.70	1.25	1.14	0.91	6.49
Black	2.18	2.22	2.23	2.29	2.28	2.26	
	-	0.04	0.01	0.06	-0.01	-0.02	0.08
American Indian	0.51	0.48	0.45	0.41	0.35	0.30	
	-	-0.03	-0.03	-0.05	-0.05	-0.05	-0.21

Source: State of California Department of Finance 1998

Central Coast Region

Monterey

Racial/ethnic group	1990	2000	2010	2020	2030	2040	Cumulative percent change
			Year				
White	52.41	45.15	35.01	26.05	18.24	11.67	
	-	-7.26	-10.14	-8.96	-7.81	-6.57	-40.74
Hispanic	33.79	41.10	51.95	62.09	71.28	79.22	
	-	7.31	10.85	10.14	9.18	7.94	45.43
Asian/Pacific Islander	7.16	7.31	7.07	6.43	5.79	5.11	
	-	0.16	-0.24	-0.65	-0.64	-0.68	-2.05
Black	6.04	5.85	5.45	4.99	4.34	3.72	
	-	-0.19	-0.40	-0.46	-0.65	-0.62	-2.32
American Indian	0.60	0.58	0.51	0.44	0.35	0.27	
	-	-0.01	-0.07	-0.08	-0.09	-0.08	-0.33

Source: State of California Department of Finance 1998

San Luis Obispo

Racial/ethnic group	1990	2000	2010	2020	2030	2040	Cumulative percent change
			Year				
White	81.23	79.80	77.94	75.49	72.79	70.20	
	-	-1.43	-1.86	-2.44	-2.71	-2.58	-11.02
Hispanic	13.36	14.57	16.15	18.45	21.09	23.72	
	-	1.21	1.59	2.29	2.64	2.62	10.35
Asian/Pacific Islander	2.65	2.93	3.24	3.34	3.43	3.46	
	-	0.27	0.31	0.09	0.10	0.03	0.80
Black	2.00	2.03	2.08	2.21	2.24	2.24	
	-	0.03	0.06	0.13	0.03	0.00	0.24
American Indian	0.76	0.68	0.58	0.51	0.44	0.38	
	-	-0.08	-0.09	-0.07	-0.06	-0.06	-0.38

Source: State of California Department of Finance 1998

Santa Barbara

Racial/ethnic group	Year 1990	2000	2010	2020	2030	2040	Cumulative percent change
White	66.06	59.26	51.25	42.59	34.86	28.08	
	-	-6.79	-8.01	-8.66	-7.73	-6.78	-37.97
Hispanic	26.72	32.69	40.19	49.13	57.31	64.64	
	-	5.97	7.50	8.93	8.18	7.34	37.92
Asian/Pacific Islander	4.09	4.91	5.51	5.39	5.21	4.92	
	-	0.81	0.60	-0.12	-0.18	-0.28	0.83
Black	2.55	2.50	2.38	2.19	1.93	1.69	
	-	-0.05	-0.12	-0.18	-0.26	-0.25	-0.86
American Indian	0.58	0.64	0.67	0.71	0.69	0.66	
	-	0.05	0.03	0.04	-0.01	-0.03	0.08

Source: State of California Department of Finance 1998

Santa Cruz

Racial/ethnic group	Year 1990	2000	2010	2020	2030	2040	Cumulative percent change
White	74.57	69.78	65.52	60.60	55.20	49.64	
	-	-4.79	-4.26	-4.91	-5.40	-5.57	-24.94
Hispanic	20.49	24.48	28.43	33.55	39.13	44.94	
	-	3.99	3.95	5.12	5.58	5.81	24.45
Asian/Pacific Islander	3.35	4.11	4.48	4.37	4.33	4.22	
	-	0.75	0.37	-0.10	-0.05	-0.11	0.86
Black	1.02	1.10	1.13	1.11	1.05	0.99	
	-	0.09	0.02	-0.02	-0.06	-0.06	-0.03
American Indian	0.57	0.53	0.45	0.37	0.29	0.22	
	-	-0.04	-0.08	-0.08	-0.08	-0.07	-0.35

Source: State of California Department of Finance 1998

Central Valley Region

Fresno

Racial/ethnic group	Year 1990	2000	2010	2020	2030	2040	Cumulative percent change
White	50.79	44.52	39.72	35.13	30.85	27.00	
	-	-6.27	-4.81	-4.59	-4.28	-3.85	-23.79
Hispanic	35.56	39.28	42.30	45.43	48.57	51.55	
	-	3.72	3.02	3.13	3.15	2.98	15.99
Asian/Pacific Islander	8.20	10.46	12.05	13.28	14.37	15.23	
	-	2.26	1.59	1.23	1.09	0.86	7.03
Black	4.69	4.84	4.97	5.15	5.18	5.20	
	-	0.15	0.13	0.18	0.04	0.02	0.51
American Indian	0.76	0.89	0.97	1.02	1.03	1.02	
	-	0.14	0.08	0.05	0.01	-0.01	0.26

Source: State of California Department of Finance 1998

Kern

Racial/ethnic group	1990	2000	2010	2020	2030	2040	Cumulative percent change
			Year				
White	62.81	56.55	49.07	42.27	36.07	30.66	
	-	-6.25	-7.49	-6.80	-6.20	-5.41	-32.14
Hispanic	28.10	33.03	39.50	45.90	52.09	57.68	
	-	4.93	6.48	6.40	6.18	5.60	29.59
Asian/Pacific Islander	2.75	3.43	4.35	4.73	4.96	5.03	
	-	0.67	0.92	0.38	0.23	0.07	2.28
Black	5.31	5.95	6.06	6.12	5.99	5.81	
	-	0.64	0.12	0.06	-0.14	-0.18	0.50
American Indian	1.03	1.05	1.02	0.97	0.90	0.81	
	-	0.01	-0.03	-0.05	-0.08	-0.09	-0.22

Source: State of California Department of Finance 1998

Kings

Racial/ethnic group	1990	2000	2010	2020	2030	2040	Cumulative percent change
			Year				
White	53.96	48.61	44.11	39.86	35.72	31.93	
	-	-5.36	-4.50	-4.24	-4.15	-3.78	-22.03
Hispanic	34.18	38.33	42.18	46.13	50.35	54.38	
	-	4.15	3.85	3.94	4.23	4.03	20.21
Asian/Pacific Islander	3.34	3.93	4.39	4.57	4.69	4.72	
	-	0.59	0.46	0.17	0.12	0.03	1.38
Black	7.63	8.29	8.45	8.61	8.47	8.25	
	-	0.66	0.16	0.16	-0.15	-0.22	0.62
American Indian	0.89	0.85	0.87	0.83	0.78	0.72	
	-	-0.04	0.02	-0.04	-0.05	-0.06	-0.17

Source: State of California Department of Finance 1998

Merced

Racial/ethnic group	1990	2000	2010	2020	2030	2040	Cumulative percent change
			Year				
White	54.27	48.19	41.37	35.65	30.40	25.78	
	-	-6.08	-6.82	-5.72	-5.25	-4.62	-28.49
Hispanic	32.71	36.44	40.38	44.18	48.03	51.53	
	-	3.73	3.94	3.81	3.85	3.50	18.82
Asian/Pacific Islander	7.99	10.79	14.10	16.38	18.20	19.70	
	-	2.80	3.32	2.27	1.82	1.50	11.71
Black	4.40	4.01	3.62	3.31	2.95	2.62	
	-	-0.39	-0.39	-0.31	-0.36	-0.33	-1.77
American Indian	0.63	0.58	0.53	0.48	0.42	0.37	
	-	-0.06	-0.05	-0.05	-0.06	-0.06	-0.27

Source: State of California Department of Finance 1998

Sacramento

Racial/ethnic group	Year 1990	2000	2010	2020	2030	2040	Cumulative percent change
White	69.35	63.71	57.56	52.36	47.35	42.55	
	-	-5.64	-6.15	-5.20	-5.01	-4.80	-26.80
Hispanic	11.72	13.34	15.22	17.24	19.52	21.88	
	-	1.62	1.87	2.02	2.28	2.36	10.16
Asian/Pacific Islander	8.92	11.78	15.19	17.40	19.54	21.47	
	-	2.86	3.41	2.21	2.14	1.93	12.55
Black	9.06	10.11	10.94	11.88	12.46	13.00	
	-	1.05	0.83	0.93	0.59	0.53	3.94
American Indian	0.95	1.05	1.10	1.13	1.13	1.11	
	-	0.10	0.04	0.03	0.00	-0.02	0.16

Source: State of California Department of Finance 1998

San Benito

Racial/ethnic group	Year 1990	2000	2010	2020	2030	2040	Cumulative percent change
White	51.50	54.27	54.91	53.58	51.45	49.34	
	-	2.77	0.64	-1.32	-2.13	-2.10	-2.15
Hispanic	45.69	42.64	41.53	42.62	44.60	46.55	
	-	-3.05	-1.11	1.09	1.98	1.95	0.86
Asian/Pacific Islander	1.78	2.17	2.55	2.76	2.92	3.05	
	-	0.39	0.38	0.21	0.16	0.14	1.27
Black	0.46	0.40	0.48	0.48	0.50	0.53	
	-	-0.05	0.07	0.01	0.02	0.03	0.07
American Indian	0.58	0.51	0.53	0.55	0.54	0.53	
	-	-0.06	0.02	0.02	-0.02	-0.01	-0.05

Source: State of California Department of Finance 1998

San Joaquin

Racial/ethnic group	Year 1990	2000	2010	2020	2030	2040	Cumulative percent change
White	58.84	53.49	49.00	45.09	41.20	37.64	
	-	-5.36	-4.48	-3.92	-3.89	-3.56	-21.21
Hispanic	23.51	25.78	28.26	31.26	34.54	37.74	
	-	2.27	2.48	3.00	3.28	3.20	14.23
Asian/Pacific Islander	11.69	14.71	16.69	17.45	18.03	18.38	
	-	3.02	1.98	0.76	0.58	0.35	6.69
Black	5.16	5.32	5.35	5.53	5.58	5.62	
	-	0.15	0.04	0.17	0.06	0.04	0.46
American Indian	0.79	0.71	0.69	0.67	0.64	0.61	
	-	-0.08	-0.02	-0.02	-0.03	-0.03	-0.17

Source: State of California Department of Finance 1998

Stanislaus

Racial/ethnic group	Year 1990	2000	2010	2020	2030	2040	Cumulative percent change
White	70.52	65.11	59.79	54.81	49.85	45.21	
	-	-5.41	-5.32	-4.98	-4.97	-4.63	-25.31
Hispanic	21.95	25.38	28.66	32.43	36.55	40.58	
	-	3.43	3.28	3.78	4.11	4.03	18.63
Asian/Pacific Islander	4.95	6.62	8.43	9.40	10.13	10.64	
	-	1.67	1.81	0.97	0.72	0.51	5.69
Black	1.66	1.95	2.20	2.44	2.59	2.71	
	-	0.29	0.25	0.24	0.15	0.12	1.05
American Indian	0.93	0.95	0.92	0.91	0.89	0.86	
	-	0.02	-0.03	-0.01	-0.02	-0.03	-0.06

Source: State of California Department of Finance 1998

ABAG Region

Alameda

Racial/ethnic group	Year 1990	2000	2010	2020	2030	2040	Cumulative percent change
White	53.15	44.09	36.99	30.92	25.04	19.16	
	-	-9.07	-7.10	-6.06	-5.88	-5.88	-34.00
Hispanic	14.29	18.22	20.76	23.19	25.91	28.84	
	-	3.94	2.54	2.43	2.72	2.93	14.55
Asian/Pacific Islander	14.60	20.09	25.24	28.80	32.36	35.65	
	-	5.50	5.15	3.55	3.56	3.30	21.06
Black	17.43	17.14	16.58	16.68	16.32	16.01	
	-	-0.30	-0.56	0.10	-0.36	-0.31	-1.42
American Indian	0.53	0.46	0.43	0.41	0.38	0.34	
	-	-0.07	-0.03	-0.02	-0.03	-0.04	-0.19

Source: State of California Department of Finance 1998

Contra Costa

Racial/ethnic group	Year 1990	2000	2010	2020	2030	2040	Cumulative percent change
White	69.69	63.91	59.52	55.55	51.23	46.88	
	-	-5.79	-4.39	-3.97	-4.32	-4.35	-22.82
Hispanic	11.43	13.83	16.10	18.61	21.60	24.81	
	-	2.40	2.27	2.51	2.99	3.21	13.38
Asian/Pacific Islander	9.26	12.40	14.33	15.46	16.75	17.83	
	-	3.14	1.93	1.13	1.30	1.08	8.57
Black	9.07	9.34	9.54	9.88	9.96	10.07	
	-	0.27	0.20	0.35	0.08	0.11	1.00
American Indian	0.55	0.53	0.52	0.49	0.46	0.41	
	-	-0.02	-0.02	-0.02	-0.04	-0.04	-0.14

Source: State of California Department of Finance 1998

Marin

Racial/ethnic group	Year 1990	2000	2010	2020	2030	2040	Cumulative percent change
White	84.61	79.10	75.04	71.30	67.46	63.70	
	-	-5.51	-4.05	-3.74	-3.84	-3.76	-20.90
Hispanic	7.87	11.97	14.08	16.49	19.25	22.12	
	-	4.10	2.12	2.41	2.76	2.87	14.25
Asian/Pacific Islander	3.96	5.26	6.87	7.92	8.90	9.72	
	-	1.30	1.61	1.05	0.98	0.82	5.76
Black	3.28	3.43	3.76	4.07	4.19	4.29	
	-	0.15	0.33	0.30	0.12	0.10	1.01
American Indian	0.29	0.25	0.24	0.22	0.19	0.16	
	-	-0.04	-0.01	-0.02	-0.03	-0.03	-0.13

Source: State of California Department of Finance 1998

San Francisco

Racial/ethnic group	Year 1990	2000	2010	2020	2030	2040	Cumulative percent change
White	46.57	40.05	36.81	33.36	29.07	23.69	
	-	-6.52	-3.24	-3.45	-4.29	-5.38	-22.88
Hispanic	13.97	16.19	18.19	20.49	23.30	26.81	
	-	2.22	2.00	2.30	2.81	3.51	12.84
Asian/Pacific Islander	28.57	33.43	34.87	36.08	38.09	40.50	
	-	4.86	1.44	1.20	2.01	2.41	11.93
Black	10.53	9.99	9.79	9.74	9.22	8.71	
	-	-0.54	-0.20	-0.05	-0.52	-0.51	-1.81
American Indian	0.36	0.34	0.34	0.34	0.32	0.29	
	-	-0.02	0.00	0.00	-0.02	-0.03	-0.07

Source: State of California Department of Finance 1998

San Mateo

Racial/ethnic group	Year 1990	2000	2010	2020	2030	2040	Cumulative percent change
White	60.27	50.45	42.18	35.25	28.42	21.61	
	-	-9.82	-8.27	-6.94	-6.83	-6.81	-38.66
Hispanic	17.77	23.09	26.96	30.86	35.05	39.52	
	-	5.32	3.87	3.90	4.19	4.47	21.75
Asian/Pacific Islander	16.38	21.53	26.49	29.96	33.22	36.15	
	-	5.15	4.96	3.47	3.26	2.93	19.78
Black	5.22	4.50	3.93	3.51	2.91	2.35	
	-	-0.73	-0.56	-0.42	-0.59	-0.56	-2.87
American Indian	0.36	0.43	0.44	0.43	0.40	0.36	
	-	0.07	0.00	-0.01	-0.03	-0.04	0.00

Source: State of California Department of Finance 1998

Santa Clara

Racial/ethnic group	Year 1990	2000	2010	2020	2030	2040	Cumulative percent change
White	57.98	47.79	38.43	30.31	22.45	14.94	
	-	-10.19	-9.36	-8.12	-7.86	-7.51	-43.04
Hispanic	21.09	24.16	26.85	30.33	34.07	38.02	
	-	3.06	2.69	3.48	3.74	3.95	16.93
Asian/Pacific Islander	16.97	24.21	31.00	35.69	40.03	43.82	
	-	7.24	6.79	4.68	4.34	3.79	26.85
Black	3.51	3.55	3.45	3.42	3.23	3.03	
	-	0.04	-0.10	-0.03	-0.19	-0.20	-0.48
American Indian	0.44	0.29	0.27	0.25	0.22	0.19	
	-	-0.15	-0.03	-0.02	-0.03	-0.03	-0.26

Source: State of California Department of Finance 1998

Solano

Racial/ethnic group	Year 1990	2000	2010	2020	2030	2040	Cumulative percent change
White	60.95	55.58	51.00	47.48	43.89	40.42	
	-	-5.37	-4.58	-3.52	-3.59	-3.47	-20.54
Hispanic	13.43	15.17	16.86	18.66	20.81	23.06	
	-	1.74	1.69	1.80	2.15	2.25	9.63
Asian/Pacific Islander	11.98	14.70	17.28	18.53	19.83	20.92	
	-	2.72	2.58	1.25	1.30	1.09	8.94
Black	12.92	13.88	14.22	14.72	14.90	15.07	
	-	0.96	0.34	0.50	0.18	0.17	2.16
American Indian	0.72	0.68	0.64	0.61	0.57	0.53	
	-	-0.04	-0.03	-0.03	-0.04	-0.04	-0.19

Source: State of California Department of Finance 1998

Median Age by Gender and Race/Ethnicity, by County, 1990-2040

SANDAG Region

San Diego

Year	Total	Hispanic		Black		Asian/Pacific Islander		American Indian		White	
		Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
1990	30	23	24	24	25	26	30	26	30	32	35
2000	31	25	25	24	26	29	32	31	35	32	36
2010	31	24	24	24	26	30	34	36	39	32	36
2020	30	24	24	25	27	31	35	38	41	32	36
2030	31	24	25	25	28	33	36	39	43	33	36
2040	31	25	25	26	28	34	37	40	44	34	37

Source: State of California Department of Finance 1998

SCAG Region

Imperial

Year	Total	Hispanic		Black		Asian/Pacific Islander		American Indian		White	
		Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
1990	28	22	25	32	32	38	34.5	24	27	38	40
2000	27	23	25	28	35	38	38	32	35	36	42
2010	27	24	26	28	36	35	36	38	40	32	37
2020	28	25	26	29	38	35	37	44	46	32	36
2030	28	25	27	29	39	36	39	48	51	33	37
2040	28	26	27	29	40	37	40	53	55	33	38

Source: State of California Department of Finance 1998

Los Angeles

Year	Total	Hispanic		Black		Asian/Pacific Islander		American Indian		White	
		Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
1990	30	23	24	28	30	30	32	30	33	35	38
2000	33	26	26	31	35	33	36	37	39	40	42
2010	35	26	26	34	40	36	39	43	46	46	48
2020	34	26	26	35	41	37	40	47	51	51	53
2030	35	27	27	38	41	39	42	49	54	50	53
2040	34	26	27	39	43	41	44	50	54	50	53

Source: State of California Department of Finance 1998

Orange

Year	Total	Hispanic		Black		Asian/Pacific Islander		American Indian		White	
		Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
1990	31	23	24	27	27	28	29	29	32	34	36
2000	34	26	23	27	28	30	32	35	38	38	40
2010	35	24	22	28	29	32	34	41	43	44	45
2020	34	24	23	29	30	33	35	45	47	46	49
2030	34	24	24	30	32	35	36	47	48	46	49
2040	33	24	24	30	32	36	38	47	47	48	50

Source: State of California Department of Finance 1998

Riverside

Year	Total	Hispanic		Black		Asian/Pacific Islander		American Indian		White	
		Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
1990	31	23	23	27	28	26	29	29	30	34	36
2000	33	24	22	29	29	28	30	30	32	38	40
2010	32	23	22	29	29	28	31	31	32	40	42
2020	31	23	23	29	30	28	32	31	33	40	42
2030	31	23	23	30	31	29	33	33	35	42	44
2040	31	24	24	30	31	31	35	34	36	43	45

Source: State of California Department of Finance 1998

San Bernardino

Year	Total	Hispanic		Black		Asian/Pacific Islander		American Indian		White	
		Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
1990	29	23	23	24	26	26	29	28	30	31	33
2000	30	23	23	26	27	28	31	32	35	35	37
2010	30	22	22	27	28	28	32	35	37	37	39
2020	30	23	23	28	30	29	33	38	40	38	40
2030	30	23	23	29	31	30	34	39	41	40	42
2040	29	24	24	29	31	32	35	40	42	42	44

Source: State of California Department of Finance 1998

Ventura

Year	Total	Hispanic		Black		Asian/Pacific Islander		American Indian		White	
		Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
1990	31	23	24	27	28	29	32	30	32	34	35
2000	34	26	25	31	31	31	35	36	38	38	40
2010	35	26	25	35	35	33	36	40	42	40	42
2020	35	26	26	35	37	33	37	44	46	40	42
2030	35	27	27	35	38	35	38	44	49	42	44
2040	35	27	27	35.5	38	36	39	43	48	43	45

Source: State of California Department of Finance 1998

Central Coast Region

Monterey

Year	Total	Hispanic		Black		Asian/Pacific Islander		American Indian		White	
		Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
1990	29	23	22	26	25	29	33	29	31	32	36
2000	32	24	21	27	31	33	38	36	38	38	41
2010	30	23	21	28	34	35	40	42	44	43	46
2020	29	23	21	30	38	37	41	49	51	49	49
2030	28	23	21	30	42	39	43	53	55	52	49
2040	26	23	22	31	46	41	44	55.5	56	56	53

Source: State of California Department of Finance 1998

San Luis Obispo

Year	Total	Hispanic		Black		Asian/Pacific Islander		American Indian		White	
		Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
1990	33	25	23	29	24	23	27	30	34	34	36
2000	34	26	24	30	27	30	32	37.5	42	34	36
2010	34	26	23	31	30	36	35	42	47.5	34	37
2020	34	26	24	33	32	37	37	47	51	35	38
2030	35	26	24	35	34	39	39	50	54	36	39
2040	35	26	25	37	35	41	40	51	55	36	39

Source: State of California Department of Finance 1998

Santa Barbara

Year	Total	Hispanic		Black		Asian/Pacific Islander		American Indian		White	
		Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
1990	31	24	23	27	26	27	27	28	32	33	37
2000	34	27	25	32	30	30	32	34	39	38	41
2010	35	25	23	37	34	32	37	40	43	42	45
2020	32	25	24	38	36	34	38	44	46	44	47
2030	32	25	24	40	39	36	40	46	47	45	47
2040	31	25	24	40	40	39	42	47	48	47	49

Source: State of California Department of Finance 1998

Santa Cruz

Year	Total	Hispanic		Black		Asian/Pacific Islander		American Indian		White	
		Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
1990	32	23	23	25	24	29	30	30	31	34	36
2000	36	24	23	31	30	32	34	37.5	40	39	41
2010	38	23	22	35	34	34	37	43	45	42	44
2020	37	24	23	38	37	36	39	50	52	45	46
2030	37	24	23	40	40	39	41	56	59	46	47
2040	36	24	23	41	41	41	43	59	62	48	49

Source: State of California Department of Finance 1998

Central Valley Region

Fresno

Year	Total	Hispanic		Black		Asian/Pacific Islander		American Indian		White	
		Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
1990	29	23	23	23	26	19	21	28	29	34	36
2000	30	24	24	23	26	21	22	30	32	37	39
2010	30	25	25	24	27	24	24	31	34	39	42
2020	31	26	26	26	28	26	26	33	35	40	42
2030	31	27	26	26	29	27	27	34	37	41	44
2040	31	27	27	27	29	29	29	35	38	42	45

Source: State of California Department of Finance 1998

Kern

Year	Total	Hispanic		Black		Asian/Pacific Islander		American Indian		White	
		Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
1990	29	22	22	26	26	29	31	29	32	32	34
2000	30	23	21	27	27	29	32	35	39	36	37
2010	30	23	21	28	28	30	32	38	42	36	39
2020	29	23	22	29	29	31	32	41	45	37	40
2030	29	23	22	29	30	33	33	43	46	39	42
2040	29	23	23	29	30	34	34	44	47	40	43

Source: State of California Department of Finance 1998

Kings

Year	Total	Hispanic		Black		Asian/Pacific Islander		American Indian		White	
		Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
1990	27	24	23	27	27	24	29	23	26	30	32
2000	28	25	23	27	29	26	31	25	30	30	34
2010	28	25	23	27	30	26	31	30	33	31	34
2020	28	25	23	28	31	27	32	33	38	32	35
2030	29	25	24	29	32	27	33	36	40	33	37
2040	29	25	24	30	33	29	34	38	42	34	37

Source: State of California Department of Finance 1998

Merced

Year	Total	Hispanic		Black		Asian/Pacific Islander		American Indian		White	
		Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
1990	27	22	22	25.5	26	16	18	31	31	31	33
2000	28	23	22	28	28	18	20	38	38	34	37
2010	28	23	23	29	30	21	23	40	43	36	39
2020	29	24	23	31	32	22	24	42	45	37	40
2030	29	24	24	32	34	23	25	45	47	40	42
2040	29	25	25	33	35	25	26	46	49	41	44

Source: State of California Department of Finance 1998

Sacramento

Year	Total	Hispanic		Black		Asian/Pacific Islander		American Indian		White	
		Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
1990	31	25	25	26	27	26	29	28	30	33	34
2000	34	26	27	27	28	26	30	33	35	37	39
2010	34	26	26	28	29	26	29	35	38	39	42
2020	34	26	26	28	30	26	30	37	40	39	42
2030	35	26	27	29	31	28	31	38	41	41	43
2040	35	26	27	30	32	29	33	39	42	42	45

Source: State of California Department of Finance 1998

San Benito

Year	Total	Hispanic		Black		Asian/Pacific Islander		American Indian		White	
		Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
1990	30	24	24	28.5	18	34	35	38	34	35	36
2000	32	26	25	29	23	32	35	45	43	36	38
2010	32	26	26	26	26	30	32	42	43	36	37
2020	33	26	26	28	29	29	33	41	42	37	39
2030	33	27	27	29	31	30	33	38	43	38	40
2040	34	27	28	29	31	32	35	39	42	39	40

Source: State of California Department of Finance 1998

San Joaquin

Year	Total	Hispanic		Black		Asian/Pacific Islander		American Indian		White	
		Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
1990	30	24	24	25	28	22	24	29	30	33	35
2000	32	27	25	27	27	24	25	33	35	36	39
2010	32	26	25	27	27	26	28	34	36	38	40
2020	32	26	25	28	28	28	30	34	36	39	40
2030	33	26	25	29	29	30	32	34	36	41	42
2040	33	26	26	29	29	32	33	34	36	42	43

Source: State of California Department of Finance 1998

Stanislaus

Year	Total	Hispanic		Black		Asian/Pacific Islander		American Indian		White	
		Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
1990	30	22	22	26	27	20	23	30	32	32	34
2000	32	23	22	26	27	23	24	34	35	35	38
2010	31	23	23	27	27	25	27	35	37	36	39
2020	32	23	23	28	28	28	29	34	37	37	39
2030	32	24	24	28	29	29	31	34	36	39	41
2040	32	24	24	29	29	31	33	35	37	40	42

Source: State of California Department of Finance 1998

ABAG Region

Alameda

Year	Total	Hispanic		Black		Asian/Pacific Islander		American Indian		White	
		Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
1990	32	25	26	28	31	29	31	29	31	34	37
2000	35	27	27	30	34	31	33	35	37	39	42
2010	37	28	27	31	36	32	34	41	43	45	47
2020	37	28	28	32	36	33	35	44	48	50	52
2030	37	29	29	34	38	35	37	45	50	50	53
2040	38	29	29	34	38	36	39	47	50	51	53

Source: State of California Department of Finance 1998

Contra Costa

Year	Total	Hispanic		Black		Asian/Pacific Islander		American Indian		White	
		Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
1990	33	25	26	27	30	30	32	31	33	35	37
2000	37	27	27	28	32	31	35	37	40	39	41
2010	38	27	27	30	33	33	37	43	46	42	45
2020	38	28	28	31	35	35	38	47	50	42	46
2030	39	29	29	33	36	37	40	51	54	43	46
2040	39	29	28	34	36	38	41	53	55	44	48

Source: State of California Department of Finance 1998

Marin

Year	Total	Hispanic		Black		Asian/Pacific Islander		American Indian		White	
		Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
1990	37	26	29	30	30	31	34	33	35	38	40
2000	38	29	30	32	35	34	38	40	44	38	40
2010	38	29	29	33	36	35	39	46	51	38	40
2020	37	28	27	33	38	35	40	49	57	38	39
2030	38	28	28	34	40	37	41	51	59	39	40
2040	38	27	28	34	40	38	43	55	61	39	40

Source: State of California Department of Finance 1998

San Francisco

Year	Total	Hispanic		Black		Asian/Pacific Islander		American Indian		White	
		Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
1990	35	29	31	32	33	33	35	33	33	37	39
2000	39	33	34	34	37	36	38	40	40	43	44
2010	45	37	37	37	40	39	43	48	48	50	50
2020	50	37	37	39	42	42	46	55	55	58	58
2030	50	37	38	41	44	44	49	62	62	65	65
2040	49	37	38	44	48	46	49	64	66	71	72

Source: State of California Department of Finance 1998

San Mateo

Year	Total	Hispanic		Black		Asian/Pacific Islander		American Indian		White	
		Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
1990	34	25	26	29	31	30	32	30	34	37	40
2000	37	28	28	34	36	33	35	37	40	42	44
2010	39	29	29	39	41	34	37	43	47	47	49
2020	39	29	29	41	44	35	38	48	52	51	54
2030	39	30	30	44	46	37	40	51	55.5	50	54
2040	39	30	30	48	50	38	41	54	57	51	54

Source: State of California Department of Finance 1998

Santa Clara

Year	Total	Hispanic		Black		Asian/Pacific Islander		American Indian		White	
		Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
1990	31	25	25	28	28	29	30	29	31	33	36
2000	35	28	27	33	32	31	32	37	39	39	41
2010	37	28	27	37	37	32	33	44	46	46	47
2020	37	28	28	39	39	33	35	50	53	52	53
2030	37	29	29	40	41	35	36	52	56	56	57
2040	37	29	29	41	42	36	38	50	56	58	60

Source: State of California Department of Finance 1998

Solano

Year	Total	Hispanic		Black		Asian/Pacific Islander		American Indian		White	
		Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
1990	30	25	25	27	28	27	31	28	30	31	33
2000	34	29	26	31	30	28	33	35	37	36	37
2010	34	29	27	31	31	29	34	38	40	38	39
2020	35	29	27	32	33	31	36	40	42	38	39
2030	36	29	28	33	34	33	37	42	45	40	41
2040	36	29	28	34	35	34	38	42	44	41	43

Source: State of California Department of Finance 1998

Building Trends by Region and County, 1987-1998

SANDAG Region

San Diego

Year	Total Residential Incorporated	Total Residential Unincorporated	Total Residential	Total Non-Residential Incorporated	Total Non-Residential Unincorporated	Total Non-Residential Valuation
1987	$2,304,934.00	$589,133.00	$2,894,067.00	$1,191,948.00	$92,197.00	$1,284,145.00
1988	$2,412,681.00	$1,044,208.00	$3,456,889.00	$1,107,574.00	$94,766.00	$1,202,340.00
1989	$1,944,387.00	$597,047.00	$2,541,434.00	$1,173,222.00	$61,412.00	$1,234,634.00
1990	$1,618,063.50	$493,759.70	$2,111,823.20	$886,060.00	$69,906.30	$955,966.30
1991	$1,085,092.10	$307,810.00	$1,392,902.10	$600,441.50	$54,625.20	$655,066.70
1992	$799,889.60	$254,505.70	$1,054,395.30	$487,238.80	$41,085.10	$528,323.90
1993	$821,961.80	$183,309.50	$1,005,271.30	$495,729.70	$40,547.30	$536,277.00
1994	$1,007,940.30	$210,918.20	$1,218,858.50	$423,371.90	$26,236.20	$449,608.10
1995	$971,110.80	$216,842.80	$1,187,953.60	$598,500.10	$28,796.30	$627,296.40
1996	$1,097,349.90	$261,006.50	$1,358,356.40	$694,190.90	$44,402.40	$738,593.30
1997	$1,691,957.80	$340,814.90	$2,032,772.70	$903,428.70	$54,802.00	$958,230.70
1998	$1,884,806.30	$429,251.90	$2,314,058.20	$1,139,532.80	$71,746.00	$1,211,278.80

Source: Construction Industry Research Board 1988-1999

Regional Average, Based on 1987-1998

Total Residential Incorporated	Total Residential Unincorporated	Total Residential	Total Non-Residential Incorporated	Total Non-Residential Unincorporated	Total Non-Residential Valuation
$1,470,014.51	$410,717.27	$1,880,731.78	$808,436.53	$56,710.15	$865,146.68

Source: Construction Industry Research Board 1988-1999

SCAG Region

Imperial

Year	Total Residential Incorporated	Total Residential Unincorporated	Total Residential	Total Non-Residential Incorporated	Total Non-Residential Unincorporated	Total Non-Residential Valuation
1987	$22,067.00	$4,816.00	$26,883.00	$6,365.00	$152,970.00	$159,335.00
1988	$36,357.00	$7,114.00	$43,471.00	$6,580.00	$127,298.00	$133,878.00
1989	$48,404.00	$4,048.00	$52,452.00	$14,842.00	$16,207.00	$31,049.00
1990	$63,030.30	$5,268.30	$68,298.60	$22,984.80	$5,861.20	$28,846.00
1991	$60,220.00	$8,388.90	$68,608.90	$15,195.50	$5,368.30	$20,563.80
1992	$78,027.30	$10,566.00	$88,593.30	$27,087.80	$15,050.00	$42,137.80
1993	$54,094.80	$7,134.30	$61,229.10	$23,861.20	$3,510.80	$27,372.00
1994	$66,619.00	$9,987.10	$76,606.10	$12,609.60	$2,844.10	$15,453.70
1995	$38,084.60	$6,333.60	$44,418.20	$9,737.40	$13,320.20	$23,057.60
1996	$26,975.90	$10,001.70	$36,977.60	$14,069.80	$4,110.80	$18,180.60
1997	$28,494.60	$7,266.20	$35,760.80	$19,788.90	$2,965.30	$22,754.20
1998	$39,263.80	$4,524.90	$43,788.70	$23,189.10	$6,391.90	$29,581.00

Source: Construction Industry Research Board 1988-1999

Los Angeles

Year	Total Residential Incorporated	Total Residential Unincorporated	Total Residential	Total Non-Residential Incorporated	Total Non-Residential Unincorporated	Total Non-Residential Valuation
1987	$4,101,847.00	$1,114,412.00	$5,216,259.00	$3,557,706.00	$421,059.00	$3,978,765.00
1988	$4,696,542.00	$804,497.00	$5,501,039.00	$4,278,795.00	$421,171.00	$4,699,966.00
1989	$5,575,068.00	$867,361.00	$6,442,429.00	$4,224,276.00	$260,426.00	$4,484,702.00
1990	$3,647,575.90	$507,989.30	$4,155,565.20	$3,534,963.50	$296,115.90	$3,831,079.40
1991	$2,686,442.30	$511,097.70	$3,197,540.00	$2,540,390.50	$199,205.00	$2,739,595.50
1992	$2,230,042.00	$370,345.20	$2,600,387.20	$1,974,286.10	$160,783.80	$2,135,069.90
1993	$1,623,252.20	$286,846.20	$1,910,098.40	$2,012,624.10	$163,885.40	$2,176,509.50
1994	$1,854,756.20	$299,716.70	$2,154,472.90	$2,155,768.80	$137,152.20	$2,292,921.00
1995	$1,931,249.50	$325,363.80	$2,256,613.30	$1,831,860.80	$161,161.90	$1,993,022.70
1996	$1,710,871.60	$381,294.20	$2,092,165.80	$1,966,181.30	$133,190.20	$2,099,371.50
1997	$2,001,819.50	$501,741.00	$2,503,560.50	$2,105,964.40	$131,325.90	$2,237,290.30
1998	$2,283,962.00	$528,546.10	$2,812,508.10	$2,893,929.40	$231,177.60	$3,125,107.00

Source: Construction Industry Research Board 1988-1999

Orange

Year	Total Residential Incorporated	Total Residential Unincorporated	Total Residential	Total Non-Residential Incorporated	Total Non-Residential Unincorporated	Total Non-Residential Valuation
1987	$1,165,284.00	$772,453.00	$1,937,737.00	$1,348,164.00	$133,009.00	$1,481,173.00
1988	$1,523,249.00	$1,029,633.00	$2,552,882.00	$1,431,334.00	$173,699.00	$1,605,033.00
1989	$1,402,789.00	$772,663.00	$2,175,452.00	$1,393,584.00	$137,858.00	$1,531,442.00
1990	$906,970.70	$485,245.90	$1,392,216.60	$1,053,909.80	$118,741.60	$1,172,651.40
1991	$807,300.80	$281,814.40	$1,089,115.20	$730,821.00	$66,647.80	$797,468.80
1992	$792,936.70	$239,258.20	$1,032,194.90	$539,116.80	$28,004.40	$567,121.20
1993	$764,125.80	$319,590.10	$1,083,715.90	$464,583.70	$32,145.60	$496,729.30
1994	$1,202,224.00	$543,076.80	$1,745,300.80	$517,656.50	$42,899.80	$560,556.30
1995	$896,628.10	$398,669.30	$1,295,297.40	$561,945.50	$20,766.60	$582,712.10
1996	$1,076,603.90	$452,232.60	$1,528,836.50	$706,492.60	$54,317.50	$760,810.10
1997	$1,466,056.00	$541,026.70	$2,007,082.70	$974,295.90	$105,392.10	$1,079,688.00
1998	$1,385,497.70	$478,589.60	$1,864,087.30	$1,359,643.00	$170,050.20	$1,529,693.20

Source: Construction Industry Research Board 1988-1999

Riverside

Year	Total Residential Incorporated	Total Residential Unincorporated	Total Residential	Total Non-Residential Incorporated	Total Non-Residential Unincorporated	Total Non-Residential Valuation
1987	$910,977.00	$676,746.00	$1,587,723.00	$424,841.00	$138,178.00	$563,019.00
1988	$1,539,823.00	$1,699,467.00	$3,239,290.00	$360,517.00	$196,885.00	$557,402.00
1989	$1,850,332.00	$945,948.00	$2,796,280.00	$414,585.00	$234,768.00	$649,353.00
1990	$1,117,722.60	$617,351.50	$1,735,074.10	$387,423.90	$239,940.00	$627,363.90
1991	$737,351.20	$302,288.30	$1,039,639.50	$362,055.70	$94,281.00	$456,336.70
1992	$721,811.50	$288,731.40	$1,010,542.90	$362,264.60	$71,183.60	$433,448.20
1993	$656,254.10	$240,612.30	$896,866.40	$176,612.90	$70,870.30	$247,483.20
1994	$823,695.30	$240,482.20	$1,064,177.50	$197,706.90	$45,763.30	$243,470.20
1995	$803,174.70	$135,619.30	$938,794.00	$236,175.70	$97,548.90	$333,724.60
1996	$939,442.70	$109,878.40	$1,049,321.10	$241,005.40	$76,524.80	$317,530.20
1997	$1,185,115.70	$255,239.10	$1,440,354.80	$287,185.50	$229,767.40	$516,952.90
1998	$1,480,114.30	$452,463.00	$1,932,577.30	$426,068.60	$164,873.00	$590,941.60

Source: Construction Industry Research Board 1988-1999

San Bernardino

Year	Total Residential Incorporated	Total Residential Unincorporated	Total Residential	Total Non-Residential Incorporated	Total Non-Residential Unincorporated	Total Non-Residential Valuation
1987	$859,074.00	$743,443.00	$1,602,517.00	$578,170.00	$130,050.00	$708,220.00
1988	$953,710.00	$663,463.00	$1,617,173.00	$668,726.00	$109,639.00	$778,365.00
1989	$1,420,164.00	$588,457.00	$2,008,621.00	$667,711.00	$120,611.00	$788,322.00
1990	$1,111,284.90	$363,698.10	$1,474,983.00	$596,132.80	$99,105.40	$695,238.20
1991	$529,416.10	$274,585.10	$804,001.20	$501,265.30	$59,437.10	$560,702.40
1992	$669,732.80	$167,143.10	$836,875.90	$259,718.50	$30,731.90	$290,450.40
1993	$607,617.10	$103,304.70	$710,921.80	$256,604.80	$45,606.10	$302,210.90
1994	$562,930.50	$95,179.20	$658,109.70	$318,929.50	$49,082.60	$368,012.10
1995	$465,421.30	$108,431.10	$573,852.40	$375,221.20	$35,909.50	$411,130.70
1996	$626,519.80	$105,885.20	$732,405.00	$354,199.40	$43,428.40	$397,627.80
1997	$729,938.80	$112,560.80	$842,499.60	$478,541.20	$48,824.50	$527,365.70
1998	$866,588.90	$126,568.00	$993,156.90	$600,056.90	$42,851.70	$642,908.60

Source: Construction Industry Research Board 1988-1999

Ventura

Year	Total Residential Incorporated	Total Residential Unincorporated	Total Residential	Total Non-Residential Incorporated	Total Non-Residential Unincorporated	Total Non-Residential Valuation
1987	$427,466.00	$89,846.00	$517,312.00	$175,411.00	$17,763.00	$193,174.00
1988	$493,557.00	$174,832.00	$668,389.00	$239,354.00	$24,675.00	$264,029.00
1989	$468,876.00	$192,970.00	$661,846.00	$216,128.00	$30,025.00	$246,153.00
1990	$274,473.50	$96,495.10	$370,968.60	$211,006.00	$23,305.10	$234,311.10
1991	$250,586.10	$66,106.30	$316,692.40	$164,936.30	$13,974.40	$178,910.70
1992	$223,970.30	$85,103.20	$309,073.50	$145,562.10	$9,312.20	$154,874.30
1993	$229,727.90	$51,830.20	$281,558.10	$164,457.70	$14,680.60	$179,138.30
1994	$350,835.50	$57,385.10	$408,220.60	$142,199.30	$14,862.00	$157,061.30
1995	$396,491.20	$45,857.10	$442,348.30	$168,400.50	$18,622.70	$187,023.20
1996	$421,165.80	$54,885.60	$476,051.40	$173,049.60	$13,280.00	$186,329.60
1997	$445,522.00	$80,866.30	$526,388.30	$177,921.70	$22,571.90	$200,493.60
1998	$633,175.50	$88,553.90	$721,729.40	$274,843.90	$16,585.60	$291,429.50

Source: Construction Industry Research Board 1988-1999

Regional Average, Based on 1987-1998

Total Residential Incorporated	Total Residential Unincorporated	Total Residential	Total Non-Residential Incorporated	Total Non-Residential Unincorporated	Total Non-Residential Valuation
$1,042,760.99	$325,016.49	$1,367,777.48	$779,716.57	$95,161.13	$874,877.69

Source: Construction Industry Research Board 1988-1999

Central Coast Region

Monterey

Year	Total Residential Incorporated	Total Residential Unincorporated	Total Residential	Total Non-Residential Incorporated	Total Non-Residential Unincorporated	Total Non-Residential Valuation
1987	$91,781.00	$78,483.00	$170,264.00	$56,892.00	$22,896.00	$79,788.00
1988	$83,287.00	$97,968.00	$181,255.00	$46,363.00	$31,539.00	$77,902.00
1989	$141,154.00	$123,514.00	$264,668.00	$57,373.00	$24,031.00	$81,404.00
1990	$79,833.10	$106,279.40	$186,112.50	$63,703.20	$33,487.30	$97,190.50
1991	$84,190.10	$60,403.60	$144,593.70	$73,615.20	$50,119.20	$123,734.40
1992	$81,803.50	$57,342.90	$139,146.40	$64,954.40	$22,742.30	$87,696.70
1993	$98,212.60	$60,660.10	$158,872.70	$64,517.00	$33,767.70	$98,284.70
1994	$173,914.50	$63,220.80	$237,135.30	$51,932.60	$37,283.50	$89,216.10
1995	$143,497.80	$81,000.20	$224,498.00	$51,966.40	$45,358.30	$97,324.70
1996	$146,348.60	$120,204.20	$266,552.80	$73,748.60	$40,469.20	$114,217.80
1997	$185,249.80	$114,536.90	$299,786.70	$76,049.70	$30,292.30	$106,342.00
1998	$152,446.20	$126,376.30	$278,822.50	$83,485.50	$52,839.70	$136,325.20

Source: Construction Industry Research Board 1988-1999

San Luis Obispo

Year	Total Residential Incorporated	Total Residential Unincorporated	Total Residential	Total Non-Residential Incorporated	Total Non-Residential Unincorporated	Total Non-Residential Valuation
1987	$138,004.00	$108,530.00	$246,534.00	$39,351.00	$27,473.00	$66,824.00
1988	$148,762.00	$127,488.00	$276,250.00	$32,700.00	$29,833.00	$62,533.00
1989	$182,979.00	$131,067.00	$314,046.00	$31,153.00	$23,966.00	$55,119.00
1990	$98,809.90	$124,403.50	$223,213.40	$29,086.40	$17,105.30	$46,191.70
1991	$62,273.80	$95,993.60	$158,267.40	$22,205.50	$31,374.40	$53,579.90
1992	$53,066.90	$52,097.30	$105,164.20	$23,942.10	$19,916.70	$43,858.80
1993	$53,277.40	$70,356.80	$123,634.20	$28,368.70	$14,373.50	$42,742.20
1994	$74,546.70	$74,483.10	$149,029.80	$43,113.50	$13,889.60	$57,003.10
1995	$76,354.00	$65,070.50	$141,424.50	$19,645.30	$13,263.70	$32,909.00
1996	$85,947.00	$76,308.00	$162,255.00	$24,034.20	$16,019.90	$40,054.10
1997	$101,092.50	$93,216.40	$194,308.90	$35,208.30	$23,387.20	$58,595.50
1998	$158,955.10	$110,411.30	$269,366.40	$52,368.30	$22,323.10	$74,691.40

Source: Construction Industry Research Board 1988-1999

Santa Barbara

Year	Total Residential Incorporated	Total Residential Unincorporated	Total Residential	Total Non-Residential Incorporated	Total Non-Residential Unincorporated	Total Non-Residential Valuation
1987	$94,046.00	$137,215.00	$231,261.00	$41,112.00	$48,339.00	$89,451.00
1988	$87,705.00	$125,516.00	$213,221.00	$59,781.00	$40,495.00	$100,276.00
1989	$81,978.00	$153,948.00	$235,926.00	$72,239.00	$41,615.00	$113,854.00
1990	$95,311.30	$121,377.50	$216,688.80	$85,058.90	$69,984.20	$155,043.10
1991	$71,298.00	$123,925.40	$195,223.40	$56,417.90	$33,970.10	$90,388.00
1992	$78,925.50	$81,095.20	$160,020.70	$46,686.30	$21,297.70	$67,984.00
1993	$56,360.80	$68,847.80	$125,208.60	$41,884.70	$20,297.20	$62,181.90
1994	$60,430.10	$86,077.40	$146,507.50	$32,149.10	$25,298.10	$57,447.20
1995	$70,999.20	$92,202.20	$163,201.40	$31,664.50	$20,339.10	$52,003.60
1996	$65,133.90	$97,691.60	$162,825.50	$43,072.90	$30,034.00	$73,106.90
1997	$67,317.00	$106,035.60	$173,352.60	$52,547.50	$44,096.20	$96,643.70
1998	$72,590.30	$144,727.30	$217,317.60	$78,355.20	$51,546.80	$129,902.00

Source: Construction Industry Research Board 1988-1999

Santa Cruz

Year	Total Residential Incorporated	Total Residential Unincorporated	Total Residential	Total Non-Residential Incorporated	Total Non-Residential Unincorporated	Total Non-Residential Valuation
1987	$54,315.00	$106,560.00	$160,875.00	$47,336.00	$9,886.00	$57,222.00
1988	$50,684.00	$105,543.00	$156,227.00	$41,385.00	$15,353.00	$56,738.00
1989	$83,196.00	$68,815.00	$152,011.00	$58,424.00	$18,768.00	$77,192.00
1990	$40,777.10	$63,043.60	$103,820.70	$30,639.10	$13,875.10	$44,514.20
1991	$33,480.90	$57,973.30	$91,454.20	$84,201.00	$5,170.80	$89,371.80
1992	$29,427.80	$64,887.40	$94,315.20	$55,420.20	$16,334.70	$71,754.90
1993	$24,254.10	$48,580.80	$72,834.90	$32,445.20	$9,425.90	$41,871.10
1994	$43,710.40	$52,062.40	$95,772.80	$26,643.70	$8,096.40	$34,740.10
1995	$42,489.60	$55,162.60	$97,652.20	$28,575.00	$5,630.40	$34,205.40
1996	$51,256.20	$55,002.90	$106,259.10	$22,337.70	$14,608.00	$36,945.70
1997	$71,865.00	$69,920.20	$141,785.20	$37,601.20	$8,107.50	$45,708.70
1998	$51,817.20	$90,940.10	$142,757.30	$91,941.70	$17,147.80	$109,089.50

Source: Construction Industry Research Board 1988-1999

Regional Average, Based on 1987-1998

Total Residential Incorporated	Total Residential Unincorporated	Total Residential	Total Non-Residential Incorporated	Total Non-Residential Unincorporated	Total Non-Residential Valuation
$86,982.39	$91,595.11	$178,577.50	$48,826.99	$26,405.56	$75,232.55

Source: Construction Industry Research Board 1988-1999

Central Valley Region

Fresno

Year	Total Residential Incorporated	Total Residential Unincorporated	Total Residential	Total Non-Residential Incorporated	Total Non-Residential Unincorporated	Total Non-Residential Valuation
1987	$241,452.00	$36,245.00	$277,697.00	$91,254.00	$38,908.00	$130,162.00
1988	$257,383.00	$46,921.00	$304,304.00	$196,664.00	$51,384.00	$248,048.00
1989	$431,023.00	$55,899.00	$486,922.00	$145,516.00	$42,787.00	$188,303.00
1990	$377,277.90	$75,624.20	$452,902.10	$168,059.40	$73,330.10	$241,389.50
1991	$325,458.60	$65,135.10	$390,593.70	$157,964.80	$66,328.60	$224,293.40
1992	$404,550.50	$61,174.20	$465,724.70	$148,567.70	$23,153.80	$171,721.50
1993	$358,844.10	$56,230.40	$415,074.50	$126,325.80	$24,434.80	$150,760.60
1994	$366,416.60	$64,819.80	$431,236.40	$108,142.40	$36,940.50	$145,082.90
1995	$339,990.70	$69,072.00	$409,062.70	$145,764.30	$20,681.90	$166,446.20
1996	$308,806.90	$54,340.00	$363,146.90	$139,153.10	$40,051.40	$179,204.50
1997	$281,789.20	$46,243.00	$328,032.20	$171,368.10	$48,778.50	$220,146.60
1998	$324,324.10	$46,995.10	$371,319.20	$202,751.50	$40,094.10	$242,845.60

Source: Construction Industry Research Board 1988-1999

Kern

Year	Total Residential Incorporated	Total Residential Unincorporated	Total Residential	Total Non-Residential Incorporated	Total Non-Residential Unincorporated	Total Non-Residential Valuation
1987	$162,659.00	$133,309.00	$295,968.00	$108,599.00	$99,523.00	$208,122.00
1988	$163,638.00	$102,899.00	$266,537.00	$145,737.00	$77,311.00	$223,048.00
1989	$220,201.00	$166,269.00	$386,470.00	$95,175.00	$87,216.00	$182,391.00
1990	$254,275.80	$201,560.50	$455,836.30	$97,715.00	$97,878.70	$195,593.70
1991	$184,794.20	$141,766.50	$326,560.70	$92,427.20	$95,943.90	$188,371.10
1992	$260,292.60	$126,746.40	$387,039.00	$73,484.80	$81,256.30	$154,741.10
1993	$223,675.40	$109,786.40	$333,461.80	$129,383.10	$65,478.50	$194,861.60
1994	$204,567.40	$102,349.40	$306,916.80	$98,939.20	$52,941.30	$151,880.50
1995	$226,067.20	$107,797.30	$333,864.50	$53,358.00	$51,439.10	$104,797.10
1996	$201,061.20	$89,130.20	$290,191.40	$76,695.20	$60,584.10	$137,279.30
1997	$192,740.80	$82,002.00	$274,742.80	$66,135.20	$78,272.80	$144,408.00
1998	$267,378.20	$90,267.10	$357,645.30	$119,303.60	$83,598.90	$202,902.50

Source: Construction Industry Research Board 1988-1999

Kings

Year	Total Residential Incorporated	Total Residential Unincorporated	Total Residential	Total Non-Residential Incorporated	Total Non-Residential Unincorporated	Total Non-Residential Valuation
1987	$47,849.00	$8,442.00	$56,291.00	$8,846.00	$5,561.00	$14,407.00
1988	$20,905.00	$8,469.00	$29,374.00	$10,490.00	$6,804.00	$17,294.00
1989	$39,636.00	$10,069.00	$49,705.00	$6,331.00	$5,921.00	$12,252.00
1990	$47,194.30	$8,589.00	$55,783.30	$10,619.30	$3,790.60	$14,409.90
1991	$48,027.70	$7,546.90	$55,574.60	$23,979.70	$8,297.40	$32,277.10
1992	$55,206.60	$8,107.70	$63,314.30	$25,858.90	$8,735.30	$34,594.20
1993	$46,144.80	$10,923.00	$57,067.80	$10,368.50	$4,141.60	$14,510.10
1994	$62,114.10	$12,318.70	$74,432.80	$15,163.20	$12,456.80	$27,620.00
1995	$64,520.00	$7,138.60	$71,658.60	$8,966.60	$4,243.80	$13,210.40
1996	$62,541.30	$7,584.60	$70,125.90	$7,756.90	$8,487.50	$16,244.40
1997	$64,707.10	$9,220.60	$73,927.70	$16,752.00	$11,708.40	$28,460.40
1998	$67,952.40	$6,939.80	$74,892.20	$13,993.50	$6,324.40	$20,317.90

Source: Construction Industry Research Board 1988-1999

Merced

Year	Total Residential Incorporated	Total Residential Unincorporated	Total Residential	Total Non-Residential Incorporated	Total Non-Residential Unincorporated	Total Non-Residential Valuation
1987	$44,588.00	$32,675.00	$77,263.00	$17,663.00	$21,930.00	$39,593.00
1988	$66,554.00	$30,064.00	$96,618.00	$16,911.00	$30,643.00	$47,554.00
1989	$114,067.00	$33,497.00	$147,564.00	$24,723.00	$16,779.00	$41,502.00
1990	$71,284.30	$37,615.40	$108,899.70	$17,283.30	$14,971.40	$32,254.70
1991	$61,476.60	$33,588.10	$95,064.70	$15,832.30	$9,751.90	$25,584.20
1992	$87,247.40	$62,996.40	$150,243.80	$32,088.40	$10,032.70	$42,121.10
1993	$63,355.10	$50,284.30	$113,639.40	$34,363.60	$18,003.60	$52,367.20
1994	$63,750.80	$43,226.90	$106,977.70	$24,516.40	$20,550.50	$45,066.90
1995	$56,078.40	$30,347.20	$86,425.60	$10,744.90	$15,006.60	$25,751.50
1996	$55,358.90	$39,180.60	$94,539.50	$18,288.90	$17,585.40	$35,874.30
1997	$75,065.50	$34,079.70	$109,145.20	$21,622.00	$27,295.00	$48,917.00
1998	$84,792.70	$37,738.90	$122,531.60	$28,294.40	$29,622.80	$57,917.20

Source: Construction Industry Research Board 1988-1999

Sacramento

Year	Total Residential Incorporated	Total Residential Unincorporated	Total Residential	Total Non-Residential Incorporated	Total Non-Residential Unincorporated	Total Non-Residential Valuation
1987	$308,971.00	$504,072.00	$813,043.00	$173,024.00	$252,906.00	$425,930.00
1988	$336,959.00	$761,603.00	$1,098,562.00	$384,966.00	$254,069.00	$639,035.00
1989	$424,616.00	$987,107.00	$1,411,723.00	$242,679.00	$205,831.00	$448,510.00
1990	$470,372.00	$742,764.20	$1,213,136.20	$325,302.10	$173,187.30	$498,489.40
1991	$220,106.80	$366,782.70	$586,889.50	$212,580.40	$158,699.00	$371,279.40
1992	$268,123.00	$444,017.50	$712,140.50	$160,334.40	$150,584.50	$310,918.90
1993	$255,993.40	$405,075.20	$661,068.60	$155,353.00	$135,406.10	$290,759.10
1994	$232,145.90	$449,042.00	$681,187.90	$201,182.10	$136,500.60	$337,682.70
1995	$193,263.80	$371,885.70	$565,149.50	$141,199.70	$150,422.50	$291,622.20
1996	$223,291.00	$351,393.00	$574,684.00	$158,706.40	$156,479.70	$315,186.10
1997	$248,989.80	$387,857.80	$636,847.60	$254,070.30	$231,145.10	$485,215.40
1998	$383,734.70	$641,978.30	$1,025,713.00	$253,288.40	$313,242.90	$566,531.30

Source: Construction Industry Research Board 1988-1999

San Benito

Year	Total Residential Incorporated	Total Residential Unincorporated	Total Residential	Total Non-Residential Incorporated	Total Non-Residential Unincorporated	Total Non-Residential Valuation
1987	$15,120.00	$15,524.00	$30,644.00	$4,666.00	$1,606.00	$6,272.00
1988	$19,921.00	$30,192.00	$50,113.00	$2,726.00	$525.00	$3,251.00
1989	$25,207.00	$33,419.00	$58,626.00	$7,527.00	$3,951.00	$11,478.00
1990	$21,896.40	$10,161.70	$32,058.10	$6,830.30	$3,224.60	$10,054.90
1991	$12,715.60	$6,233.20	$18,948.80	$4,185.20	$1,962.50	$6,147.70
1992	$23,569.00	$12,126.50	$35,695.50	$4,312.30	$4,572.90	$8,885.20
1993	$29,645.70	$11,117.70	$40,763.40	$3,923.80	$864.70	$4,788.50
1994	$37,500.70	$12,245.00	$49,745.70	$10,783.10	$2,527.50	$13,310.60
1995	$33,093.30	$9,518.00	$42,611.30	$7,100.40	$1,924.50	$9,024.90
1996	$37,240.30	$9,025.60	$46,265.90	$6,050.50	$4,714.20	$10,764.70
1997	$53,670.00	$23,106.10	$76,776.10	$10,572.10	$2,391.20	$12,963.30
1998	$62,349.70	$35,268.80	$97,618.50	$11,081.50	$3,962.30	$15,043.80

Source: Construction Industry Research Board 1988-1999

San Joaquin

Year	Total Residential Incorporated	Total Residential Unincorporated	Total Residential	Total Non-Residential Incorporated	Total Non-Residential Unincorporated	Total Non-Residential Valuation
1987	$184,826.00	$52,598.00	$237,424.00	$138,339.00	$36,112.00	$174,451.00
1988	$262,903.00	$79,112.00	$342,015.00	$153,412.00	$36,877.00	$190,289.00
1989	$330,217.00	$104,589.00	$434,806.00	$106,033.00	$47,010.00	$153,043.00
1990	$270,500.40	$94,783.20	$365,283.60	$127,328.60	$94,230.90	$221,559.50
1991	$194,589.20	$45,568.40	$240,157.60	$138,392.10	$35,446.40	$173,838.50
1992	$254,782.10	$47,042.00	$301,824.10	$125,646.30	$29,346.00	$154,992.30
1993	$252,088.50	$38,457.90	$290,546.40	$137,905.50	$29,990.50	$167,896.00
1994	$226,369.70	$43,413.70	$269,783.40	$89,816.30	$27,094.10	$116,910.40
1995	$232,441.70	$37,659.50	$270,101.20	$100,113.10	$34,200.90	$134,314.00
1996	$247,509.40	$34,997.40	$282,506.80	$106,866.60	$27,258.00	$134,124.60
1997	$250,805.90	$32,932.50	$283,738.40	$169,534.10	$36,140.90	$205,675.00
1998	$400,341.90	$43,772.90	$444,114.80	$176,075.40	$42,750.90	$218,826.30

Source: Construction Industry Research Board 1988-1999

Stanislaus

Year	Total Residential Incorporated	Total Residential Unincorporated	Total Residential	Total Non-Residential Incorporated	Total Non-Residential Unincorporated	Total Non-Residential Valuation
1987	$213,013.00	$31,080.00	$244,093.00	$69,996.00	$41,081.00	$111,077.00
1988	$319,234.00	$35,708.00	$354,942.00	$70,707.00	$26,090.00	$96,797.00
1989	$434,893.00	$46,384.00	$481,277.00	$101,647.00	$18,299.00	$119,946.00
1990	$306,202.10	$25,863.90	$332,066.00	$103,521.10	$25,858.00	$129,379.10
1991	$115,152.70	$22,147.80	$137,300.50	$65,704.20	$36,616.60	$102,320.80
1992	$170,791.20	$38,307.00	$209,098.20	$70,142.70	$27,284.60	$97,427.30
1993	$136,524.00	$44,564.00	$181,088.00	$42,098.10	$23,149.70	$65,247.80
1994	$103,356.20	$42,793.80	$146,150.00	$54,885.50	$37,959.90	$92,845.40
1995	$92,953.60	$46,159.70	$139,113.30	$53,216.30	$41,014.50	$94,230.80
1996	$97,486.70	$53,695.20	$151,181.90	$77,921.90	$36,132.50	$114,054.40
1997	$120,262.60	$55,353.20	$175,615.80	$56,796.70	$45,907.30	$102,704.00
1998	$191,070.40	$65,309.20	$256,379.60	$91,754.60	$66,621.90	$158,376.50

Source: Construction Industry Research Board 1988-1999

Regional Average, Based on 1987-1998

Total Residential Incorporated	Total Residential Unincorporated	Total Residential	Total Non-Residential Incorporated	Total Non-Residential Unincorporated	Total Non-Residential Valuation
$181,207.23	$109,239.92	$290,447.15	$89,064.97	$52,188.88	$141,253.85

Source: Construction Industry Research Board 1988-1999

ABAG Region

Alameda

Year	Total Residential Incorporated	Total Residential Unincorporated	Total Residential	Total Non-Residential Incorporated	Total Non-Residential Unincorporated	Total Non-Residential Valuation
1987	$796,558.00	$72,839.00	$869,397.00	$533,893.00	$13,012.00	$546,905.00
1988	$636,064.00	$78,916.00	$714,980.00	$470,078.00	$22,736.00	$492,814.00
1989	$672,364.00	$78,202.00	$750,566.00	$525,480.00	$15,268.00	$540,748.00
1990	$484,652.60	$49,628.90	$534,281.50	$681,896.70	$11,495.50	$693,392.20
1991	$439,634.00	$40,710.70	$480,344.70	$470,917.90	$6,410.90	$477,328.80
1992	$614,374.80	$54,529.60	$668,904.40	$437,291.90	$4,998.80	$442,290.70
1993	$536,051.20	$42,772.40	$578,823.60	$345,475.40	$8,481.80	$353,957.20
1994	$603,701.40	$43,286.50	$646,987.90	$379,393.40	$4,018.60	$383,412.00
1995	$601,934.30	$65,651.50	$667,585.80	$498,878.70	$5,730.10	$504,608.80
1996	$781,721.20	$112,016.20	$893,737.40	$647,736.20	$12,531.70	$660,267.90
1997	$1,140,607.70	$107,643.80	$1,248,251.50	$879,648.10	$9,170.20	$888,818.30
1998	$1,141,252.80	$121,238.40	$1,262,491.20	$1,134,463.20	$8,316.30	$1,142,779.50

Source: Construction Industry Research Board 1988-1999

Contra Costa

Year	Total Residential Incorporated	Total Residential Unincorporated	Total Residential	Total Non-Residential Incorporated	Total Non-Residential Unincorporated	Total Non-Residential Valuation
1987	$395,642.00	$276,257.00	$671,899.00	$197,131.00	$102,094.00	$299,225.00
1988	$549,867.00	$239,245.00	$789,112.00	$148,203.00	$65,133.00	$213,336.00
1989	$568,710.00	$299,480.00	$868,190.00	$176,822.00	$87,186.00	$264,008.00
1990	$390,935.70	$169,977.20	$560,912.90	$199,835.00	$52,607.80	$252,442.80
1991	$318,057.00	$169,968.60	$488,025.60	$183,835.70	$25,079.30	$208,915.00
1992	$414,368.10	$235,217.90	$649,586.00	$214,237.70	$31,469.30	$245,707.00
1993	$375,422.20	$211,341.80	$586,764.00	$142,480.80	$62,990.30	$205,471.10
1994	$458,773.60	$238,272.30	$697,045.90	$141,846.60	$42,264.30	$184,110.90
1995	$440,073.50	$187,014.60	$627,088.10	$152,653.40	$38,700.40	$191,353.80
1996	$429,582.50	$256,357.50	$685,940.00	$247,741.60	$85,515.90	$333,257.50
1997	$492,385.50	$257,723.80	$750,109.30	$167,897.50	$159,354.30	$327,251.80
1998	$545,435.70	$335,892.70	$881,328.40	$174,624.00	$67,256.60	$241,880.60

Source: Construction Industry Research Board 1988-1999

Marin

Year	Total Residential Incorporated	Total Residential Unincorporated	Total Residential	Total Non-Residential Incorporated	Total Non-Residential Unincorporated	Total Non-Residential Valuation
1987	$150,213.00	$33,143.00	$183,356.00	$37,928.00	$3,939.00	$41,867.00
1988	$170,226.00	$34,172.00	$204,398.00	$43,178.00	$3,636.00	$46,814.00
1989	$187,860.00	$35,295.00	$223,155.00	$69,939.00	$7,086.00	$77,025.00
1990	$146,217.40	$26,329.30	$172,546.70	$38,720.10	$4,119.40	$42,839.50
1991	$109,991.30	$38,659.80	$148,651.10	$69,333.90	$5,351.00	$74,684.90
1992	$97,779.50	$45,515.20	$143,294.70	$85,829.50	$5,354.60	$91,184.10
1993	$95,223.10	$32,910.50	$128,133.60	$52,436.80	$4,701.40	$57,138.20
1994	$102,487.10	$44,976.60	$147,463.70	$45,743.90	$7,089.50	$52,833.40
1995	$121,525.10	$46,956.70	$168,481.80	$43,799.20	$11,679.40	$55,478.60
1996	$102,816.10	$71,106.60	$173,922.70	$96,882.00	$9,150.40	$106,032.40
1997	$124,751.90	$59,175.00	$183,926.90	$46,823.00	$8,265.00	$55,088.00
1998	$170,842.70	$67,154.40	$237,997.10	$69,950.20	$7,556.20	$77,506.40

Source: Construction Industry Research Board 1988-1999

San Francisco

Year	Total Residential Incorporated	Total Residential Unincorporated	Total Residential	Total Non-Residential Incorporated	Total Non-Residential Unincorporated	Total Non-Residential Valuation
1987	$344,206.00	N/A	$344,206.00	$356,541.00	N/A	$356,541.00
1988	$291,396.00	N/A	$291,396.00	$578,848.00	N/A	$578,848.00
1989	$314,020.00	N/A	$314,020.00	$381,061.00	N/A	$381,061.00
1990	$316,410.00	N/A	$316,410.10	$474,077.20	N/A	$474,077.20
1991	$281,462.70	N/A	$281,462.70	$358,840.50	N/A	$358,840.50
1992	$205,342.20	N/A	$205,342.20	$409,318.10	N/A	$409,318.10
1993	$253,657.30	N/A	$253,657.30	$309,147.90	N/A	$309,147.90
1994	$229,886.90	N/A	$229,886.90	$312,900.50	N/A	$312,900.50
1995	$186,351.40	N/A	$186,351.40	$273,178.20	N/A	$273,178.20
1996	$239,450.40	N/A	$239,450.40	$382,148.70	N/A	$382,148.70
1997	$342,930.50	N/A	$342,930.50	$462,381.80	N/A	$462,381.80
1998	$426,875.50	N/A	$426,875.50	$528,968.70	N/A	$528,968.70

Source: Construction Industry Research Board 1988-1999

San Mateo

Year	Total Residential Incorporated	Total Residential Unincorporated	Total Residential	Total Non-Residential Incorporated	Total Non-Residential Unincorporated	Total Non-Residential Valuation
1987	$328,220.00	$54,284.00	$382,504.00	$307,736.00	$5,731.00	$313,467.00
1988	$392,352.00	$58,017.00	$450,369.00	$233,180.00	$7,769.00	$240,949.00
1989	$430,252.00	$51,080.00	$481,332.00	$227,273.00	$10,702.00	$237,975.00
1990	$262,752.20	$46,423.30	$309,175.50	$205,689.80	$9,922.90	$215,612.70
1991	$249,453.20	$40,112.80	$289,566.00	$178,978.00	$3,876.20	$182,854.20
1992	$222,163.90	$29,304.50	$251,468.40	$151,418.20	$5,345.10	$156,763.30
1993	$192,922.70	$36,905.20	$229,827.90	$161,837.20	$4,935.90	$166,773.10
1994	$246,212.30	$37,245.30	$283,457.60	$289,513.60	$2,448.30	$291,961.90
1995	$297,566.40	$33,305.60	$330,872.00	$203,845.40	$7,728.70	$211,574.10
1996	$268,184.10	$34,070.00	$302,254.10	$216,431.60	$6,783.30	$223,214.90
1997	$365,800.10	$58,663.90	$424,464.00	$459,095.90	$11,174.50	$470,270.40
1998	$468,549.70	$77,153.40	$545,703.10	$401,297.00	$20,544.50	$421,841.50

Source: Construction Industry Research Board 1988-1999

Santa Clara

Year	Total Residential Incorporated	Total Residential Unincorporated	Total Residential	Total Non-Residential Incorporated	Total Non-Residential Unincorporated	Total Non-Residential Valuation
1987	$650,149.00	$68,773.00	$718,922.00	$721,856.00	$49,910.00	$771,766.00
1988	$688,522.00	$62,067.00	$750,589.00	$668,267.00	$44,665.00	$712,932.00
1989	$616,027.00	$73,524.00	$689,551.00	$716,934.00	$39,813.00	$756,747.00
1990	$623,682.90	$62,833.40	$686,516.30	$735,798.80	$25,181.30	$760,980.10
1991	$536,551.50	$56,157.10	$592,708.60	$591,649.80	$39,703.60	$631,353.40
1992	$494,259.40	$48,591.30	$542,850.70	$586,253.30	$56,047.40	$642,300.70
1993	$541,848.30	$37,184.30	$579,032.60	$606,509.70	$29,329.00	$635,838.70
1994	$600,492.20	$37,414.20	$637,906.40	$652,543.70	$29,217.00	$681,760.70
1995	$626,984.90	$38,265.90	$665,250.80	$809,449.80	$67,135.90	$876,585.70
1996	$1,032,998.50	$65,869.30	$1,098,867.80	$1,232,956.30	$60,228.70	$1,293,185.00
1997	$1,245,937.90	$83,709.30	$1,329,647.20	$1,758,552.30	$156,157.90	$1,914,710.20
1998	$1,170,576.10	$123,979.00	$1,294,555.10	$1,812,363.60	$69,598.10	$1,881,961.70

Source: Construction Industry Research Board 1988-1999

Solano

Year	Total Residential Incorporated	Total Residential Unincorporated	Total Residential	Total Non-Residential Incorporated	Total Non-Residential Unincorporated	Total Non-Residential Valuation
1987	$309,592.00	$16,021.00	$325,613.00	$74,586.00	$2,126.00	$76,712.00
1988	$528,440.00	$20,289.00	$548,729.00	$94,690.00	$3,418.00	$98,108.00
1989	$682,384.00	$18,986.00	$701,370.00	$125,120.00	$3,829.00	$128,949.00
1990	$270,141.20	$19,713.40	$289,854.60	$99,253.40	$3,508.30	$102,761.70
1991	$217,027.70	$11,408.80	$228,436.50	$103,025.00	$4,658.30	$107,683.30
1992	$235,736.80	$13,095.70	$248,832.50	$106,064.50	$6,349.60	$112,414.10
1993	$196,038.50	$11,056.80	$207,095.30	$53,461.60	$3,231.90	$56,693.50
1994	$205,404.90	$10,745.10	$216,150.00	$53,786.60	$12,855.50	$66,642.10
1995	$152,588.40	$9,806.40	$162,394.80	$86,377.30	$6,086.30	$92,463.60
1996	$222,916.80	$5,606.00	$228,522.80	$81,612.30	$3,284.30	$84,896.60
1997	$244,990.20	$4,944.10	$249,934.30	$126,113.80	$2,529.80	$128,643.60
1998	$324,018.10	$7,481.10	$331,499.20	$127,367.90	$3,404.30	$130,772.20

Source: Construction Industry Research Board 1988-1999

Regional Average, Based on 1987-1998

Total Residential Incorporated	Total Residential Unincorporated	Total Residential	Total Non-Residential Incorporated	Total Non-Residential Unincorporated	Total Non-Residential Valuation
$416,450.33	$79,773.11	$484,827.28	$354,063.39	$25,541.37	$375,955.99

Source: Construction Industry Research Board 1988-1999

Housing Units in 1990, Owner- and Renter-Occupied, and Vacant Units

SANDAG Region

County	Occupied housing units: Owner-occupied	Occupied housing units: Renter-occupied	Occupied housing units: Total occupied housing units	Vacant housing units	Total # housing units
San Diego	477,579	409,824	887,403	58,837	946,240
% of total	50.5	43.3	93.8	6.2	100.0
% of total occupied	53.8	46.2	100.0		
Regional Total	477,579	409,824	887,403	58,837	946,240
% of total	50.5	43.3	93.8	6.2	100.0
% of total occupied	53.8	46.2	100.0		

Source: United States Census Bureau 1990a

SCAG Region

County	Occupied housing units: Owner-occupied	Occupied housing units: Renter-occupied	Occupied housing units: Total occupied housing units	Vacant housing units	Total # housing units
Imperial	18,907	13,935	32,842	3,717	36,559
% of total	51.7	38.1	89.8	10.2	100.0
% of total occupied	57.6	42.4	100.0		
Los Angeles	1,440,830	1,548,722	2,989,552	173,791	3,163,343
% of total	45.5	49.0	94.5	5.5	100.0
% of total occupied	48.2	51.8	100.0		
Orange	496,782	330,284	827,066	48,006	875,072
% of total	56.8	37.7	94.5	5.5	100.0
% of total occupied	60.1	39.9	100.0		
Riverside	270,876	131,191	402,067	81,780	483,847
% of total	56.0	27.1	83.1	16.9	100.0
% of total occupied	67.4	32.6	100.0		
San Bernardino	294,248	170,489	464,737	77,595	542,332
% of total	54.3	31.4	85.7	14.3	100.0
% of total occupied	63.3	36.7	100.0		
Ventura	142,262	75,036	217,298	11,180	228,478
% of total	62.3	32.8	95.1	4.9	100.0
% of total occupied	65.5	34.5	100.0		
Regional Total	2,663,905	2,269,657	4,933,562	396,069	5,329,631
% of total	50.0	42.6	92.6	7.4	100.0
% of total occupied	54.0	46.0	100.0		

Source: United States Census Bureau 1990a

Central Coast Region

County	Occupied housing units: Owner-occupied	Occupied housing units: Renter-occupied	Occupied housing units: Total occupied housing units	Vacant housing units	Total # housing units
Monterey	57,202	55,763	112,965	8,259	121,224
% of total	47.2	46.0	93.2	6.8	100.0
% of total occupied	50.6	49.4	100.0		
San Luis Obispo	48,035	32,246	80,281	9,919	90,200
% of total	53.3	35.7	89.0	11.0	100.0
% of total occupied	59.8	40.2	100.0		
Santa Barbara	71,053	58,749	129,802	8,347	138,149
% of total	51.4	42.5	94.0	6.0	100.0
% of total occupied	54.7	45.3	100.0		
Santa Cruz	50,052	33,514	83,566	8,312	91,878
% of total	54.5	36.5	91.0	9.0	100.0
% of total occupied	59.9	40.1	100.0		
Regional Total	226,342	180,272	406,614	34,837	441,451
% of total	51.3	40.8	92.1	7.9	100.0
% of total occupied	55.7	44.3	100.0		

Source: United States Census Bureau 1990a

Central Valley Region

County	Occupied housing units: Owner-occupied	Occupied housing units: Renter-occupied	Occupied housing units: Total occupied housing units	Vacant housing units	Total # housing units
Fresno	119,876	101,057	220,933	14,630	235,563
% of total	50.9	42.9	93.8	6.2	100.0
% of total occupied	54.3	45.7	100.0		
Kern	107,652	73,828	181,480	17,156	198,636
% of total	54.2	37.2	91.4	8.6	100.0
% of total occupied	59.3	40.7	100.0		
Kings	15,381	13,701	29,082	1,761	30,843
% of total	49.9	44.4	94.3	5.7	100.0
% of total occupied	52.9	47.1	100.0		
Merced	30,082	25,249	55,331	3,079	58,410
% of total	51.5	43.2	94.7	5.3	100.0
% of total occupied	54.4	45.6	100.0		
Sacramento	223,360	171,170	394,530	23,044	417,574
% of total	53.5	41.0	94.5	5.5	100.0
% of total occupied	56.6	43.4	100.0		
San Benito	6,984	4,438	11,422	808	12,230
% of total	57.1	36.3	93.4	6.6	100.0
% of total occupied	61.1	38.9	100.0		

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San Joaquin	91,068	67,088	158,156	8,118	166,274
% of total	54.8	40.3	95.1	4.9	100.0
% of total occupied	57.6	42.4	100.0		
Stanislaus	76,129	49,246	125,375	6,652	132,027
% of total	57.7	37.3	95.0	5.0	100.0
% of total occupied	60.7	39.3	100.0		
Regional Total	670,532	505,777	1,176,309	75,248	1,251,557
% of total	53.6	40.4	94.0	6.0	100.0
% of total occupied	57.0	43.0	100.0		

Source: United States Census Bureau 1990a

ABAG Region

County	Occupied housing units: Owner-occupied	Occupied housing units: Renter-occupied	Occupied housing units: Total occupied housing units	Vacant housing units	Total # housing units
Alameda	255,386	224,132	479,518	24,591	504,109
% of total	50.7	44.5	95.1	4.9	100.0
% of total occupied	53.3	46.7	100.0		
Contra Costa	202,894	97,394	300,288	15,882	316,170
% of total	64.2	30.8	95.0	5.0	100.0
% of total occupied	67.6	32.4	100.0		
Marin	58,991	36,015	95,006	4,751	99,757
% of total	59.1	36.1	95.2	4.8	100.0
% of total occupied	62.1	37.9	100.0		
San Francisco	105,497	200,087	305,584	22,887	328,471
% of total	32.1	60.9	93.0	7.0	100.0
% of total occupied	34.5	65.5	100.0		
San Mateo	145,552	96,362	241,914	9,868	251,782
% of total	57.8	38.3	96.1	3.9	100.0
% of total occupied	60.2	39.8	100.0		
Santa Clara	307,354	212,826	520,180	20,060	540,240
% of total	56.9	39.4	96.3	3.7	100.0
% of total occupied	59.1	40.9	100.0		
Solano	71,309	42,120	113,429	6,104	119,533
% of total	59.7	35.2	94.9	5.1	100.0
% of total occupied	62.9	37.1	100.0		
Regional Total	1,146,983	908,936	2,055,919	104,143	2,160,062
% of total	53.1	42.1	95.2	4.8	100.0
% of total occupied	55.8	44.2	100.0		

Source: United States Census Bureau 1990a

Median Value and Median Rent in the 26 Counties

County	Planning Region	Median Value of Owner-Occupied Housing[1]	Median Rent[1]
San Diego	SANDAG	$186,700.00	$611.00
Regional Average	**SANDAG**	**$186,700.00**	**$611.00**
Imperial	SCAG	$72,500.00	$394.00
Los Angeles	SCAG	$226,400.00	$626.00
Orange	SCAG	$252,700.00	$790.00
Riverside	SCAG	$139,100.00	$572.00
San Bernardino	SCAG	$129,200.00	$556.00
Ventura	SCAG	$245,300.00	$754.00
Regional Average	**SCAG**	**$177,533.00**	**$615.00**
Monterey	Central Coast	$198,200.00	$625.00
San Luis Obispo	Central Coast	$215,300.00	$573.00
Santa Barbara	Central Coast	$250,000.00	$654.00
Santa Clara	Central Coast	$256,100.00	$713.00
Regional Average	**Central Coast**	**$229,900.00**	**$641.00**
Fresno	Central Valley	$83,600.00	$434.00
Kern	Central Valley	$82,800.00	$440.00
Kings	Central Valley	$70,700.00	$411.00
Merced	Central Valley	$90,800.00	$430.00
Sacramento	Central Valley	$129,800.00	$527.00
San Benito	Central Valley	$206,600.00	$547.00
San Joaquin	Central Valley	$121,700.00	$489.00
Stanislaus	Central Valley	$124,300.00	$482.00
Regional Average	**Central Valley**	**$113,788.00**	**$470.00**
Alameda	ABAG	$227,200.00	$626.00
Contra Costa	ABAG	$219,400.00	$675.00
Marin	ABAG	$354,200.00	$824.00
San Francisco	ABAG	$298,900.00	$653.00
San Mateo	ABAG	$343,900.00	$769.00
Santa Clara	ABAG	$289,400.00	$773.00
Solano	ABAG	$147,300.00	$590.00
Regional Average	**ABAG**	**$268,614.00**	**$701.00**

Source: United States Census Bureau 1990a

[1]Figures are rounded to nearest whole dollar.

Number of Workers 16 and Older and Percent Working Outside of County

County	Planning Region	Number of Workers 16 and older	Percent Working Outside of County
San Diego	SANDAG	1,230,446	3.4
Imperial	SCAG	35,905	6.2
Los Angeles	SCAG	4,115,248	5.9
Orange	SCAG	1,278,661	18.4
Riverside	SCAG	482,618	29.5
San Bernardino	SCAG	597,330	32.0
Ventura	SCAG	335,186	25.3
Monterey	Central Coast	164,270	7.8
San Luis Obispo	Central Coast	95,688	9.0
Santa Barbara	Central Coast	179,258	5.7
Santa Cruz	Central Coast	115,199	22.2
Fresno	Central Valley	265,397	5.5
Kern	Central Valley	213,525	5.8
Kings	Central Valley	36,943	15.4
Merced	Central Valley	68,697	15.1
Sacramento	Central Valley	482,321	11.9
San Benito	Central Valley	16,530	34.8
San Joaquin	Central Valley	191,111	16.6
Stanislaus	Central Valley	147,406	16.6
Alameda	ABAG	633,191	29.5
Contra Costa	ABAG	401,173	40.2
Marin	ABAG	125,080	41.4
San Francisco	ABAG	382,309	19.6
San Mateo	ABAG	346,559	41.9
Santa Clara	ABAG	796,605	10.8
Solano	ABAG	158,713	38.6

Source: United States Census Bureau 1990b

Average Number of Vehicles Per Household

County	Planning Region	Number of Vehicles/Household	Regional Average
San Diego	SANDAG	1.8	**1.8**
Imperial	SCAG	1.7	
Los Angeles	SCAG	1.7	
Orange	SCAG	1.9	
Riverside	SCAG	1.8	
San Bernardino	SCAG	1.9	
Ventura	SCAG	2.0	**1.8**
Monterey	Central Coast	1.8	
San Luis Obispo	Central Coast	1.9	
Santa Barbara	Central Coast	1.9	
Santa Cruz	Central Coast	1.9	**1.9**
Fresno	Central Valley	1.7	
Kern	Central Valley	1.7	
Kings	Central Valley	1.7	
Merced	Central Valley	1.8	
Sacramento	Central Valley	1.7	
San Benito	Central Valley	2.1	
San Joaquin	Central Valley	1.7	
Stanislaus	Central Valley	1.8	**1.8**
Alameda	ABAG	1.7	
Contra Costa	ABAG	1.9	
Marin	ABAG	1.8	
San Francisco	ABAG	1.1	
San Mateo	ABAG	1.9	
Santa Clara	ABAG	2.0	
Solano	ABAG	1.9	**1.8**

Source: United States Census Bureau 1990b

Commuting Methods (to Work) by County and Region, Workers 16 and Older

SANDAG Region

County	% Working at Home	% Driving Alone to Work	% In Carpools	% Using Public Transportation	% Other
San Diego	5.0	70.9	13.8	3.3	7.0
Regional Average	5.0	70.9	13.8	3.3	7.0

Source: United States Census Bureau 1990b

SCAG Region

County	% Working at Home	% Driving Alone to Work	% In Carpools	% Using Public Transportation	% Other
Imperial	2.8	74.4	14.9	0.8	7.1
Los Angeles	2.7	70.1	15.5	6.5	5.2
Orange	2.7	76.8	13.7	2.5	4.3
Riverside	3.0	73.8	17.7	0.9	4.6
San Bernardino	2.4	75.2	16.9	0.7	4.8
Ventura	3.0	76.0	15.6	0.7	4.7
Regional Average	2.8	74.4	15.7	2.0	5.1

Source: United States Census Bureau 1990b

Central Coast Region

County	% Working at Home	% Driving Alone to Work	% In Carpools	% Using Public Transportation	% Other
Monterey	3.3	67.5	17.2	2.1	9.9
San Luis Obispo	4.3	74.0	13.9	0.7	7.1
Santa Barbara	3.7	70.4	14.7	1.9	9.3
Santa Cruz	4.8	70.4	14.5	3.3	7.0
Regional Average	4.0	70.6	15.1	2.0	8.3

Source: United States Census Bureau 1990b

Central Valley Region

County	% Working at Home	% Driving Alone to Work	% In Carpools	% Using Public Transportation	% Other
Fresno	3.0	75.2	14.9	1.5	5.4
Kern	2.1	74.7	17.3	1.0	4.9
Kings	2.7	70.5	18.6	1.5	6.7
Merced	3.5	72.8	15.6	0.3	7.8
Sacramento	2.8	75.8	14.0	2.8	4.6
San Benito	3.3	73.5	17.5	0.4	5.3
San Joaquin	3.1	74.6	16.2	1.2	4.9
Stanislaus	3.5	76.7	14.2	0.6	5.0
Regional Average	3.0	74.2	16.0	1.2	5.6

Source: United States Census Bureau 1990b

ABAG Region

County	% Working at Home	% Driving Alone to Work	% In Carpools	% Using Public Transportation	% Other
Alameda	3.9	66.8	12.8	10.0	6.5
Contra Costa	3.4	71.5	13.8	7.8	3.5
Marin	6.5	66.1	12.4	10.3	4.7
San Francisco	3.8	38.5	11.5	33.5	12.7
San Mateo	2.8	72.5	13.0	7.4	4.3
Santa Clara	2.5	77.7	12.3	3.0	4.5
Solano	2.6	72.0	18.5	2.3	4.6
Regional Average	3.6	66.4	13.5	10.6	5.8

Source: United States Census Bureau 1990b

Average Commute Time to Work

County	Planning Region	Average Travel Time to Work (Minutes)
San Diego	SANDAG	22.2
Regional Average	**SANDAG**	**22.2**
Imperial	SCAG	16.5
Los Angeles	SCAG	26.5
Orange	SCAG	25.5
Riverside	SCAG	28.2
San Bernardino	SCAG	27.4
Ventura	SCAG	24.7
Regional Average	**SCAG**	**24.8**
Monterey	Central Coast	18.0
San Luis Obispo	Central Coast	18.3
Santa Barbara	Central Coast	17.6
Santa Cruz	Central Coast	24.3
Regional Average	**Central Coast**	**19.6**
Fresno	Central Valley	19.1
Kern	Central Valley	19.6
Kings	Central Valley	17.5
Merced	Central Valley	16.9
Sacramento	Central Valley	21.7
San Benito	Central Valley	23.3
San Joaquin	Central Valley	21.9
Stanislaus	Central Valley	22.5
Regional Average	**Central Valley**	**20.3**
Alameda	ABAG	25.8
Contra Costa	ABAG	29.3
Marin	ABAG	28.4
San Francisco	ABAG	26.9
San Mateo	ABAG	24.0
Santa Clara	ABAG	23.3
Solano	ABAG	28.2
Regional Average	**ABAG**	**26.6**

Source: United States Census Bureau 1990b

Enrollment and Number of Schools in the 26 Counties — Elementary Schools

County	Planning Region	Total Enrollment	# of Schools	Average Enrollment/School
San Diego	SANDAG	249,345	386	646
	SANDAG	**249,345**	**386**	**646**
Imperial	SCAG	18,157	32	567
Los Angeles	SCAG	857,493	1,160	739
Orange	SCAG	256,017	371	690
Riverside	SCAG	154,085	207	744
San Bernardino	SCAG	191,543	284	674
Ventura	SCAG	70,258	125	562
	SCAG	**1,547,553**	**2,179**	**710**
Monterey	Central Coast	37,347	70	534
San Luis Obispo	Central Coast	18,334	43	426
Santa Barbara	Central Coast	36,164	70	517
Santa Cruz	Central Coast	20,441	39	524
	Central Coast	**112,286**	**222**	**506**
Fresno	Central Valley	99,531	167	596
Kern	Central Valley	74,835	139	538
Kings	Central Valley	13,782	27	510
Merced	Central Valley	26,121	48	544
Sacramento	Central Valley	116 ,742	213	548
San Benito	Central Valley	6,039	16	377
San Joaquin	Central Valley	66,715	112	596
Stanislaus	Central Valley	50,646	90	563
	Central Valley	**454,411**	**812**	**560**
Alameda	ABAG	110,820	210	528
Contra Costa	ABAG	75,267	134	562
Marin	ABAG	14,318	44	325
San Francisco	ABAG	30,086	78	386
San Mateo	ABAG	48,446	112	433
Santa Clara	ABAG	131,310	241	545
Solano	ABAG	36,225	59	614
	ABAG	**446,472**	**878**	**509**

Source: California Department of Education 1998a

Enrollment and Number of Schools in the 26 Counties – Middle/Junior High Schools

County	Planning Region	Total Enrollment	# of Schools	Average Enrollment/School
San Diego	SANDAG	85,367	80	1,067
	SANDAG	**85,367**	**80**	**1,067**
Imperial	SCAG	5,091	8	636
Los Angeles	SCAG	299,215	237	1,263
Orange	SCAG	75,055	76	988
Riverside	SCAG	55,647	54	1,031
San Bernardino	SCAG	67,786	71	955
Ventura	SCAG	24,216	27	897
	SCAG	**527,010**	**473**	**1,114**
Monterey	Central Coast	13,089	18	727
San Luis Obispo	Central Coast	6,467	11	588
Santa Barbara	Central Coast	10,118	13	778
Santa Cruz	Central Coast	7,586	12	632
	Central Coast	**37,260**	**54**	**690**
Fresno	Central Valley	26,115	37	706
Kern	Central Valley	26,273	39	674
Kings	Central Valley	3,976	7	568
Merced	Central Valley	8,716	13	670
Sacramento	Central Valley	31,704	37	857
San Benito	Central Valley	1,757	2	879
San Joaquin	Central Valley	12,676	15	845
Stanislaus	Central Valley	14,890	18	827
	Central Valley	**126,107**	**168**	**751**
Alameda	ABAG	43,137	53	814
Contra Costa	ABAG	32,922	35	941
Marin	ABAG	5,867	10	587
San Francisco	ABAG	12,152	17	715
San Mateo	ABAG	17,340	28	619
Santa Clara	ABAG	49,618	57	870
Solano	ABAG	12,974	14	927
	ABAG	**174,010**	**214**	**813**

Source: California Department of Education 1998a

Enrollment and Number of Schools in the 26 Counties – Senior High Schools

County	Planning Region	Total Enrollment	# of Schools	Average Enrollment/School
San Diego	SANDAG	121,758	63	1,933
	SANDAG	**121,758**	**63**	**1,933**
Imperial	SCAG	8,319	8	1,040
Los Angeles	SCAG	398,325	167	2,385
Orange	SCAG	123,818	59	2,099
Riverside	SCAG	73,878	36	2,052
San Bernardino	SCAG	88,888	39	2,279
Ventura	SCAG	35,953	18	1,997
	SCAG	**729,181**	**327**	**2,230**
Monterey	Central Coast	16,554	11	1,505
San Luis Obispo	Central Coast	10,447	9	1,161
Santa Barbara	Central Coast	16,526	10	1,653
Santa Cruz	Central Coast	10,540	7	1,506
	Central Coast	**54,067**	**37**	**1,461**
Fresno	Central Valley	44,755	28	1,598
Kern	Central Valley	37,559	25	1,502
Kings	Central Valley	6,169	5	1,234
Merced	Central Valley	13,042	10	1,304
Sacramento	Central Valley	52,877	30	1,763
San Benito	Central Valley	2,739	2	1,370
San Joaquin	Central Valley	28,690	15	1,913
Stanislaus	Central Valley	23,850	13	1,835
	Central Valley	**209,681**	**128**	**1,638**
Alameda	ABAG	55,635	31	1,795
Contra Costa	ABAG	39,852	26	1,533
Marin	ABAG	7,494	8	937
San Francisco	ABAG	17,734	17	1,043
San Mateo	ABAG	25,080	18	1,393
Santa Clara	ABAG	66,320	36	1,842
Solano	ABAG	19,311	10	1,931
	ABAG	**231,426**	**146**	**1,585**

Source: California Department of Education 1998a

Number of Students and Percent of Area's Students Served by County and Region

County	Planning Region	Total # Students	% of Area's Students Served
San Diego	SANDAG	456,470	8.9
	SANDAG	**456,470**	**8.9**
Imperial	SCAG	31,567	0.6
Los Angeles	SCAG	1,555,033	30.5
Orange	SCAG	454,890	8.9
Riverside	SCAG	283,610	5.6
San Bernardino	SCAG	348,217	6.8
Ventura	SCAG	130,427	2.6
	SCAG	**2,803,744**	**55.0**
Monterey	Central Coast	66,990	1.3
San Luis Obispo	Central Coast	35,248	0.7
Santa Barbara	Central Coast	62,808	1.2
Santa Cruz	Central Coast	38,567	0.8
	Central Coast	**203,613**	**4.0**
Fresno	Central Valley	170,401	3.3
Kern	Central Valley	138,667	2.7
Kings	Central Valley	23,927	0.5
Merced	Central Valley	47,879	0.9
Sacramento	Central Valley	201,323	3.9
San Benito	Central Valley	10,535	0.2
San Joaquin	Central Valley	108,081	2.1
Stanislaus	Central Valley	89,386	1.8
	Central Valley	**790,199**	**15.4**
Alameda	ABAG	209,592	4.1
Contra Costa	ABAG	148,041	2.9
Marin	ABAG	27,679	0.5
San Francisco	ABAG	59,972	1.2
San Mateo	ABAG	90,866	1.8
Santa Clara	ABAG	247,248	4.8
Solano	ABAG	68,510	1.3
	ABAG	**851,908**	**16.6**

Source: California Department of Education 1998a

Academic Achievement by County, Measured by the Stanford 9 (Percentages are Rounded to the Nearest Tenth)

County	Planning Region	Stanford 9 Average	% Well Above Average	% Above Average	% Average	% Below Average	% Well Below Average	Number of Participating Schools
San Diego	SANDAG	7.28	42.8	25.2	14.8	11.0	6.2	504
Imperial	SCAG	6.30	27.9	25.6	14.0	23.3	9.3	43
Los Angeles	SCAG	6.00	23.3	23.6	19.9	19.4	13.7	1,556
Orange	SCAG	6.39	22.8	28.2	24.2	17.8	7.2	501
Riverside	SCAG	4.95	11.9	17.7	23.2	25.6	21.5	293
San Bernardino	SCAG	4.71	7.1	16.7	28.0	26.9	21.4	382
Ventura	SCAG	5.55	14.0	24.9	26.0	20.0	15.2	165
Monterey	Central Coast	3.68	3.3	11.1	17.8	27.7	40.0	90
San Luis Obispo	Central Coast	6.38	25.0	25.0	30.3	10.7	9.0	56
Santa Barbara	Central Coast	6.82	29.7	25.0	29.8	9.6	6.0	84
Santa Cruz	Central Coast	4.63	5.4	21.4	21.4	26.8	25.0	56
Fresno	Central Valley	5.37	24.7	15.1	13.3	21.4	25.6	219
Kern	Central Valley	5.42	23.4	14.9	15.4	25.0	20.7	187
Kings	Central Valley	5.09	17.2	17.2	17.2	20.0	28.5	35
Merced	Central Valley	4.00	10.6	15.2	9.0	21.3	44.0	66
Sacramento	Central Valley	5.36	18.0	17.7	24.8	18.4	21.2	278
San Benito	Central Valley	2.86	0.0	7.1	14.2	21.4	57.2	14
San Joaquin	Central Valley	4.12	9.1	7.5	22.0	28.8	32.6	132
Stanislaus	Central Valley	6.32	25.0	27.8	17.6	19.5	10.2	108
Alameda	ABAG	4.58	10.5	14.3	20.9	28.0	25.9	285
Contra Costa	ABAG	4.50	12.5	19.6	11.9	20.2	35.7	193
Marin	ABAG	6.47	29.4	27.4	17.6	15.7	9.8	51
San Francisco	ABAG	5.67	23.8	20.8	16.8	12.8	24.8	100
San Mateo	ABAG	4.55	12.3	16.2	14.9	24.6	31.8	154
Santa Clara	ABAG	5.80	29.2	14.9	18.9	15.2	21.7	328
Solano	ABAG	5.17	14.3	15.5	29.7	27.4	13.1	84

Source: 1999 STAR 9 Data; www.cde.ca.gov

Watershed Ratings Within Each County, 1999[1]

SANDAG Region

County	Name of Watershed[2]	EPA Rating	County Average	Regional Average	# Rated Watersheds in Average
San Diego	Aliso-San Onofre	1			
	Santa Margarita	no rating			
	San Diego2				
	Cottonwood-Tijuana	1			
	Salton Sea	5	2.3	**2.3**	**4**

SCAG Region

County	Name of Watershed[2]	EPA Rating	County Average	Regional Average	# Rated Watersheds in Average
Imperial	Imperial Reservoir (x)	5			
	Lower Colorado	5			
	Southern Mojave (x)	3			
	Salton Sea (x)	5	4.5		
Los Angeles	Middle Kern-Upper Tehachapi-Grapevine (x)	3			
	Santa Clara (x)	3			
	Calleguas (x)	5			
	Santa Monica Bay (x)	5			
	Los Angeles (x)	3			
	San Gabriel (x)	3			
	San Pedro Channel Islands (x)	3			
	Santa Ana (x)	3			
	Antelope-Fremont Valleys (x)	3			
	Mojave (x)	3	3.4		
Orange	San Gabriel (x)	3			
	San Jacinto (x)	4			
	Santa Ana (x)	3			
	Aliso-San Onofre (x)	1			
Riverside	Imperial Reservoir (x)	5			
	Bouse Wash	no rating			
	Tyson Wash	no rating			
	San Jacinto (x)	4			
	Santa Ana (x)	3			
	Aliso-San Onofre (x)	1			
	Santa Margarita	no rating			
	Southern Mojave (x)	3			
	Salton Sea (x)	5	3.5		

SCAG Region (continued)

County	Name of Watershed[2]	EPA Rating	County Average	Regional Average	# Rated Watersheds in Average
San Bernardino	Havasu-Mojave Lakes	1			
	Piute Wash	no rating			
	Sacramento Wash	no rating			
	Imperial Reservoir	5			
	Bill Williams	5			
	Ivanpah-Pahrump Valleys	no rating			
	San Gabriel (x)	3			
	Santa Ana (x)	3			
	Upper Amargosa	no rating			
	Death Valley-Lower Amargosa	5			
	Panamint Valley	no rating			
	Indian Wells-Searles Valleys	no rating			
	Antelope-Fremont Valleys (x)	3			
	Coyote-Cuddeback Lakes	no rating			
	Mojave (x)	3			
	Southern Mojave (x)	3			
	Salton Sea (x)	5	3.6		
Ventura	Middle Kern-Upper Tehachapi-Grapevine (x)	3			
	Cuyama	5			
	Santa Ynez	3			
	Santa Barbara Coastal	5			
	Santa Barbara Channel Islands	no rating			
	Ventura	3			
	Santa Clara (x)	3			
	Calleguas (x)	5			
	Santa Monica Bay (x)	5			
	Los Angeles (x)	3			
	San Pedro Channel Islands (x)	3	3.8	**3.7**	**25**

Central Coast Region

County	Name of Watershed[2]	EPA Rating	County Average	Regional Average	# Rated Watersheds in Average
Monterey	Upper Los Gatos-Avenal (x)	no rating			
	Pajaro (x)	5			
	Estrella (x)	no rating			
	Salinas (x)	5			
	Central Coastal (x)	3			
	Carmel (x)	5	4.5		
San Luis Obispo	Middle Kern-Upper Tehachapi-Grapevine	3			
	Upper Los Gatos-Avenal (x)	no rating			
	Tulare-Buena Vista Lakes (x)	6			
	Carrizo Plain	no rating			
	Estrella (x)	no rating			
	Salinas (x)	5			
	Central Coastal (x)	3			
	Cuyama (x)	5			
	Santa Maria (x)	5	4.5		
Santa Barbara	Cuyama (x)	5			
	Santa Maria (x)	5			
	San Antonio	no rating			
	Santa Ynez	3			
	Santa Barbara Coastal	5			
	Santa Barbara Channel Islands	no rating			
	Ventura	3			
	Santa Clara	3			
	San Pedro Channel Islands	3	3.9		
Santa Cruz	Coyote	5			
	Tomales-Drake Bays (x)	5			
	San Lorenzo-Soquel (x)	3			
	Pajaro (x)	5			
	Carmel (x)	5	4.6	**4.2**	**16**

Central Valley Region

County	Name of Watershed[2]	EPA Rating	County Average	Regional Average	# Rated Watersheds in Average
Fresno	Upper Kaeweah	3			
	Mill	no rating			
	Upper Dry	no rating			
	Upper King	5			
	Upper Los Gatos-Avenal (x)	no rating			
	Tulare-Buena Vista Lakes (x)	6			
	Middle San Joaquin-Lower Chowchilla (x)	5			
	Upper San Joaquin	no rating			
	Panoche-San Luis Reservoir (x)	no rating			
	Pajaro (x)	5			
	Salinas (x)	5			
	Crowley Lake	5			
	Owens Lake	5	4.9		
Kern	Upper Kern	3			
	South Fork Kern	no rating			
	Middle Kern-Upper Tehachapi-Grapevine	3			
	Upper Poso	5			
	Upper Deer-Upper White	no rating			
	Upper Los Gatos-Avenal (x)	no rating			
	Tulare-Buena Vista Lakes (x)	6			
	Carrizo Plain	no rating			
	Estrella	no rating			
	Cuyama	5			
	Santa Clara	3			
	Indian Wells-Searles Valleys	no rating			
	Antelope-Fremont Valleys	3			
	Coyote-Cuddeback Lakes	no rating			
	Mojave	3	3.9		
Kings	Upper Los Gatos-Avenal (x)	no rating			
	Tulare-Buena Vista Lakes (x)	6	6		
Merced	Middle San Joaquin-Lower Chowchilla (x)	5			
	Middle San Joaquin-Lower Merced-Lower Stanislaus (x)	5			
	Upper Chowchilla-Upper Fresno	no rating			
	Upper Merced	5			
	Panoche-San Luis Reservoir (x)	no rating			
	Pajaro (x)	5	5		

Central Valley Region (continued)

County	Name of Watershed[2]	EPA Rating	County Average	Regional Average	# Rated Watersheds in Average
Sacramento	Lower Sacramento	3			
	North Fork American	3			
	South Fork American	no rating			
	San Joaquin Delta (x)	5			
	Lower Consumnes-Lower Mokelumne (x)	5			
	Upper Consumnes	no rating	4		
San Benito	Upper Los Gatos-Avenal (x)	no rating			
	Middle San Joaquin-Lower Chowchilla (x)	5			
	Panoche-San Luis Reservoir (x)	no rating			
	Pajaro (x)	5			
	Salinas (x)	5			
	Carmel	5	5		
San Joaquin	Middle San Joaquin-Lower Merced-Lower Stanislaus (x)	5			
	San Joaquin Delta (x)	5			
	Lower Calaveras-Mormon Slough	no rating			
	Lower Consumnes-Lower Mokelumne (x)	5			
	Panoche-San Luis Reservoir (x)	no rating			
	San Francisco Bay (x)	2	4.3		
Stanislaus	Middle San Joaquin-Lower Chowchilla (x)	5			
	Middle San Joaquin-Lower Merced-Lower Stanislaus (x)	5			
	Lower Calaveras-Mormon Slough (x)	no rating			
	Upper Merced (x)	5			
	Upper Tuolumne	3			
	Upper Stanislaus	no rating			
	Panoche-San Luis Reservoir (x)	no rating			
	Coyote	5			
	San Francisco Bay (x)	2			
	Pajaro (x)	5	4.3	**5**	**24**

ABAG Region

County	Name of Watershed[2]	EPA Rating	County Average	Regional Average	# Rated Watersheds in Average
Alameda	San Joaquin Delta (x)	5			
	Panoche-San Luis Reservoir (x)	no rating			
	Suisun Bay (x)	6			
	San Pablo Bay (x)	4			
	Coyote (x)	5			
	San Francisco Bay (x)	2	4.4		
Contra Costa	San Joaquin Delta (x)	5			
	Suisin Bay (x)	6			
	San Pablo Bay (x)	4			
	San Francisco Bay (x)	2	4.3		
Marin	Bodega Bay	3			
	San Pablo Bay (x)	4			
	Tomales-Drake Bays (x)	5	4		
San Francisco	San Pablo Bay (x)	4			
	San Francisco Bay (x)	2			
	Tomales-Drake Bays (x)	5	3.7		
San Mateo	Coyote (x)	5			
	San Francisco Bay (x)	2			
	Tomales-Drake Bays (x)	5			
	San Lorenzo-Soquel (x)	3	3.8		
Santa Clara	Panoche-San Luis Reservoir (x)	no rating			
	Coyote (x)	5			
	San Francisco Bay (x)	2			
	Tomales-Drake Bays (x)	5			
	San Lorenzo-Soquel (x)	3			
	Pajaro	5	4		
Solano	Lower Sacramento	3			
	Suisun Bay (x)	6			
	San Pablo Bay (x)	4	4.3	**4.1**	**10**

Source: www.epa.gov/surf3/counties (accessed 3/23/2000)

[1]The Index of Watershed Indicators Score is interpreted as: 1= Better quality — Low vulnerability, 2=Better quality — High vulnerability, 3=Less serious problems — Low vulnerability, 4=Less serious problems —High vulnerability, 5=More serious problems — Low vulnerability, 6=More serious problems — High vulnerability, for additional information on these ratings please go to www.epa.gov/surf3/counties.

[2]An (x) after the name of a watershed indicates that particular watershed crosses other counties within the same region. In these cases, the rating was only included once in the overall average for the region. These averages are provided for interpretive/comparative purposes only and were calculated by the authors. The reader should also note that watersheds cross counties as well as regions in some cases. Ratings and locations are provided according to EPA guidelines, and no judgment of percent of watershed contained within each region or county is offered.

1996 Estimated and 2010 Forecasted Annual Average Emissions (see Appendix D for Emission Types; Cells Do Not Add to Column Totals Due to Rounding)

SANDAG
San Diego

Year	Emission category	Emission type						
		TOG	ROG	CO	NOx	SOx	PM	PM10
1996	Stationary	270	45	21	16	3	15	7
	Area-Wide	71	45	120	4	0	180	92
	Mobile	160	150	1300	200	8	10	9
	Natural	6	4	67	1	-	11	10
	Total	**510**	**240**	**1500**	**220**	**11**	**210**	**120**
2010	Stationary	340	60	25	13	4	19	10
	Area-Wide	75	48	100	6	0	230	120
	Mobile	69	64	680	130	8	10	8
	Natural	7	4	67	1	-	11	11
	Total	**490**	**180**	**870**	**150**	**12**	**270**	**150**

Source: California Air Resources Board 1999

SCAG Region
Imperial

Year	Emission category	Emission type						
		TOG	ROG	CO	NOx	SOx	PM	PM10
1996	Stationary	3	2	1	8	0	6	3
	Area-Wide	13	10	43	0	0	460	240
	Mobile	13	11	94	27	1	1	1
	Natural	-	-	-	-	-	-	-
	Total	**29**	**24**	**140**	**36**	**1**	**470**	**250**
2010	Stationary	3	3	2	11	1	9	4
	Area-Wide	15	12	47	0	-	500	260
	Mobile	7	7	65	23	1	1	1
	Natural	-	-	-	-	-	-	-
	Total	**26**	**21**	**110**	**34**	**2**	**510**	**260**

Source: California Air Resources Board 1999

Los Angeles

Year	Emission category	Emission type						
		TOG	ROG	CO	NOx	SOx	PM	PM10
1996	Stationary	400	190	44	97	29	29	20
	Area-Wide	170	130	280	22	0	370	200
	Mobile	410	370	3400	570	35	30	26
	Natural	6	3	63	1	-	10	10
	Total	**990**	**690**	**3800**	**690**	**65**	**440**	**250**
2010	Stationary	460	230	44	73	18	33	23
	Area-Wide	170	130	220	25	0	410	220
	Mobile	170	160	1900	360	43	28	24
	Natural	6	3	63	1	-	10	10
	Total	**810**	**520**	**2300**	**460**	**62**	**480**	**270**

Source: California Air Resources Board 1999

Orange

Year	Emission category	Emission type						
		TOG	ROG	CO	NOx	SOx	PM	PM10
1996	Stationary	120	66	7	14	1	6	3
	Area-Wide	46	38	100	6	0	110	58
	Mobile	130	120	1100	160	3	7	6
	Natural	1	0	8	0	-	1	1
	Total	**300**	**220**	**1300**	**180**	**5**	**130**	**69**
2010	Stationary	150	83	8	13	2	6	4
	Area-Wide	45	37	72	7	0	130	68
	Mobile	57	52	700	100	4	7	5
	Natural	1	0	8	0	-	1	1
	Total	**250**	**170**	**790**	**120**	**6**	**150**	**79**

Source: California Air Resources Board 1999

Riverside

Year	Emission category	Emission type						
		TOG	ROG	CO	NOx	SOx	PM	PM10
1996	Stationary	39	19	5	15	1	4	2
	Area-Wide	96	31	64	4	0	210	110
	Mobile	92	82	720	160	4	8	7
	Natural	5	3	49	1	-	8	8
	Total	**230**	**130**	**840**	**180**	**5**	**230**	**130**
2010	Stationary	51	26	6	14	1	4	3
	Area-Wide	100	36	67	6	0	240	130
	Mobile	43	40	460	120	5	8	6
	Natural	5	3	49	1	-	8	8
	Total	**200**	**100**	**580**	**150**	**6**	**260**	**140**

Source: California Air Resources Board 1999

San Bernardino

Year	Emission category	Emission type						
		TOG	ROG	CO	NOx	SOx	PM	PM10
1996	Stationary	76	30	22	94	9	29	21
	Area-Wide	140	36	94	4	0	230	130
	Mobile	100	94	750	190	7	10	9
	Natural	2	1	22	0	-	3	3
	Total	**320**	**160**	**890**	**290**	**15**	**270**	**160**
2010	Stationary	110	39	27	110	11	36	25
	Area-Wide	160	45	110	6	0	330	180
	Mobile	65	61	560	150	8	9	8
	Natural	2	1	22	0	-	4	3
	Total	**340**	**150**	**720**	**270**	**19**	**380**	**220**

Source: California Air Resources Board 1999

Ventura

Year	Emission category	Emission type						
		TOG	ROG	CO	NOx	SOx	PM	PM10
1996	Stationary	51	10	9	5	2	2	1
	Area-Wide	17	15	35	2	0	43	23
	Mobile	36	32	300	45	2	2	2
	Natural	7	5	29	0	-	5	4
	Total	**110**	**62**	**370**	**52**	**4**	**51**	**30**
2010	Stationary	64	14	10	6	2	2	2
	Area-Wide	18	15	28	2	-	51	27
	Mobile	13	12	150	25	2	2	1
	Natural	7	5	29	0	-	5	5
	Total	**100**	**47**	**210**	**34**	**4**	**60**	**34**

Source: California Air Resources Board 1999

Central Coast

Monterey

Year	Emission category	Emission type						
		TOG	ROG	CO	NOx	SOx	PM	PM10
1996	Stationary	110	8	13	15	3	3	2
	Area-Wide	18	16	49	1	0	67	35
	Mobile	21	19	180	32	1	2	1
	Natural	2	1	20	0	-	3	3
	Total	**150**	**44**	**260**	**49**	**5**	**75**	**41**
2010	Stationary	140	10	18	15	4	3	2
	Area-Wide	20	17	55	2	0	71	37
	Mobile	11	10	110	23	2	2	2
	Natural	2	1	20	0	-	3	3
	Total	**170**	**38**	**200**	**40**	**6**	**79**	**44**

Source: California Air Resources Board 1999

San Luis Obispo

Year	Emission category	Emission type						
		TOG	ROG	CO	NOx	SOx	PM	PM10
1996	Stationary	10	7	1	4	14	2	1
	Area-Wide	11	7	41	1	0	47	27
	Mobile	15	14	130	28	1	1	1
	Natural	2	1	22	0	-	4	3
	Total	**38**	**29**	**190**	**33**	**14**	**53**	**32**
2010	Stationary	16	11	2	6	15	3	1
	Area-Wide	13	8	47	1	-	58	33
	Mobile	9	8	83	21	1	1	1
	Natural	2	1	22	0	-	4	3
	Total	**40**	**28**	**150**	**28**	**16**	**65**	**39**

Source: California Air Resources Board 1999

Santa Barbara

Year	Emission category	Emission type						
		TOG	ROG	CO	NOx	SOx	PM	PM10
1996	Stationary	64	8	4	6	2	2	1
	Area-Wide	10	9	24	1	0	31	16
	Mobile	20	18	170	30	1	1	1
	Natural	69	19	31	0	-	5	4
	Total	**160**	**54**	**230**	**37**	**2**	**39**	**23**
2010	Stationary	77	11	5	7	2	2	1
	Area-Wide	11	9	22	1	-	35	18
	Mobile	9	8	94	21	1	1	1
	Natural	69	19	31	1	-	5	4
	Total	**170**	**47**	**150**	**30**	**3**	**42**	**24**

Source: California Air Resources Board 1999

Santa Cruz

Year	Emission category	Emission type						
		TOG	ROG	CO	NOx	SOx	PM	PM10
1996	Stationary	78	6	15	4	1	2	1
	Area-Wide	9	7	24	1	0	21	12
	Mobile	12	11	99	12	0	0	0
	Natural	0	0	1	0	-	0	0
	Total	**99**	**24**	**140**	**17**	**1**	**23**	**13**
2010	Stationary	92	8	17	5	1	3	1
	Area-Wide	9	7	21	1	0	24	14
	Mobile	4	4	47	7	0	0	0
	Natural	0	-	1	-	-	0	0
	Total	**110**	**19**	**86**	**13**	**1**	**27**	**15**

Source: California Air Resources Board 1999

Central Valley

Fresno

Year	Emission category	Emission type						
		TOG	ROG	CO	NOx	SOx	PM	PM10
1996	Stationary	320	22	11	34	8	8	6
	Area-Wide	120	33	59	3	0	220	110
	Mobile	52	46	410	64	1	3	2
	Natural	2	1	17	0	-	3	3
	Total	**500**	**100**	**500**	**100**	**9**	**240**	**130**
2010	Stationary	280	23	11	35	9	8	6
	Area-Wide	130	36	60	4	0	230	120
	Mobile	25	22	260	45	1	3	2
	Natural	2	1	17	0	-	3	3
	Total	**430**	**82**	**350**	**84**	**11**	**250**	**130**

Source: California Air Resources Board 1999

Kern

Year	Emission category	Emission type						
		TOG	ROG	CO	NOx	SOx	PM	PM10
1996	Stationary	180	66	28	110	11	14	10
	Area-Wide	100	30	46	2	0	160	82
	Mobile	53	47	410	77	2	6	5
	Natural	2	1	16	0	-	3	3
	Total	**340**	**140**	**500**	**190**	**13**	**180**	**100**
2010	Stationary	160	59	31	110	12	16	12
	Area-Wide	110	32	48	3	0	170	90
	Mobile	30	27	260	54	2	5	5
	Natural	2	1	16	0	-	3	3
	Total	**300**	**120**	**360**	**170**	**14**	**200**	**110**

Source: California Air Resources Board 1999

Kings

Year	Emission category	Emission type						
		TOG	ROG	CO	NOx	SOx	PM	PM10
1996	Stationary	6	3	2	10	1	3	2
	Area-Wide	100	16	22	0	0	67	34
	Mobile	10	9	64	13	0	1	1
	Natural	0	0	0	-	-	0	0
	Total	**120**	**28**	**88**	**23**	**1**	**70**	**36**
2010	Stationary	8	5	2	12	1	3	2
	Area-Wide	100	17	27	1	-	68	35
	Mobile	6	6	41	8	0	1	1
	Natural	-	-	-	-	-	-	-
	Total	**120**	**27**	**71**	**21**	**1**	**71**	**37**

Source: California Air Resources Board 1999

Merced

Year	Emission category	Emission type						
		TOG	ROG	CO	NOx	SOx	PM	PM10
1996	Stationary	4	3	12	7	1	3	2
	Area-Wide	110	16	40	1	0	85	45
	Mobile	14	13	130	31	1	1	1
	Natural	0	0	0	0	-	0	0
	Total	**130**	**32**	**180**	**39**	**1**	**90**	**48**
2010	Stationary	4	3	12	7	1	4	2
	Area-Wide	120	19	80	1	-	91	49
	Mobile	8	7	87	21	1	1	1
	Natural	0	-	1	-	-	0	0
	Total	**130**	**29**	**180**	**29**	**2**	**96**	**52**

Source: California Air Resources Board 1999

Sacramento

Year	Emission category	Emission type						
		TOG	ROG	CO	NOx	SOx	PM	PM10
1996	Stationary	91	18	2	5	0	3	2
	Area-Wide	51	22	62	3	0	74	39
	Mobile	72	63	560	79	2	3	3
	Natural	0	0	0	0	-	0	0
	Total	**210**	**100**	**630**	**86**	**2**	**80**	**44**
2010	Stationary	120	24	2	6	0	4	2
	Area-Wide	55	25	59	5	0	94	51
	Mobile	27	25	300	53	3	3	2
	Natural	-	-	0	-	-	-	-
	Total	**200**	**74**	**360**	**64**	**3**	**100**	**55**

Source: California Air Resources Board 1999

San Benito

Year	Emission category	Emission type						
		TOG	ROG	CO	NOx	SOx	PM	PM10
1996	Stationary	13	1	0	1	0	2	1
	Area-Wide	2	2	4	0	0	19	10
	Mobile	3	2	25	6	0	0	0
	Natural	0	0	3	0	-	1	1
	Total	**18**	**5**	**32**	**7**	**0**	**22**	**12**
2010	Stationary	20	1	0	1	-	2	1
	Area-Wide	2	2	5	0	-	21	12
	Mobile	1	1	18	4	0	0	0
	Natural	0	0	3	-	-	1	1
	Total	**24**	**4**	**27**	**5**	**0**	**24**	**13**

Source: California Air Resources Board 1999

San Joaquin

Year	Emission category	Emission type						
		TOG	ROG	CO	NOx	SOx	PM	PM10
1996	Stationary	14	10	5	17	3	7	4
	Area-Wide	83	19	42	2	0	77	41
	Mobile	35	31	290	49	1	2	2
	Natural	0	0	0	0	-	0	0
	Total	**130**	**59**	**340**	**68**	**5**	**87**	**47**
2010	Stationary	16	12	6	21	4	8	5
	Area-Wide	85	20	43	2	0	83	44
	Mobile	17	16	200	34	1	2	2
	Natural	-	-	0	-	-	-	-
	Total	**120**	**47**	**240**	**57**	**6**	**93**	**50**

Source: California Air Resources Board 1999

Stanislaus

Year	Emission category	Emission type						
		TOG	ROG	CO	NOx	SOx	PM	PM10
1996	Stationary	64	7	2	9	2	4	2
	Area-Wide	280	32	45	2	0	69	36
	Mobile	24	21	200	35	1	2	1
	Natural	0	0	0	0	-	0	0
	Total	**370**	**60**	**250**	**45**	**3**	**74**	**40**
2010	Stationary	56	8	2	10	3	5	3
	Area-Wide	280	35	68	2	0	80	44
	Mobile	11	10	120	22	1	1	1
	Natural	0	-	1	-	-	0	0
	Total	**350**	**53**	**200**	**34**	**3**	**86**	**47**

Source: California Air Resources Board 1999

ABAG Region

Alameda

Year	Emission category	Emission type						
		TOG	ROG	CO	NOx	SOx	PM	PM10
1996	Stationary	140	28	2	7	2	6	4
	Area-Wide	28	20	49	4	0	42	23
	Mobile	65	58	580	94	3	4	3
	Natural	0	0	0	0	-	0	0
	Total	**240**	**110**	**630**	**100**	**5**	**52**	**30**
2010	Stationary	150	28	2	6	2	8	5
	Area-Wide	26	17	36	4	0	45	24
	Mobile	27	24	320	60	7	3	3
	Natural	-	-	0	-	-	-	-
	Total	**200**	**68**	**360**	**69**	**9**	**56**	**31**

Source: California Air Resources Board 1999

Contra Costa

Year	Emission category	Emission type						
		TOG	ROG	CO	NOx	SOx	PM	PM10
1996	Stationary	130	36	39	61	32	8	6
	Area-Wide	20	14	40	3	0	33	18
	Mobile	49	43	420	61	3	2	2
	Natural	0	0	0	0	-	0	0
	Total	**200**	**93**	**490**	**120**	**36**	**44**	**26**
2010	Stationary	140	35	45	54	35	9	6
	Area-Wide	18	11	30	3	0	35	19
	Mobile	20	18	220	39	4	2	2
	Natural	-	-	0	-	-	-	-
	Total	**170**	**65**	**300**	**96**	**38**	**46**	**27**

Source: California Air Resources Board 1999

Marin

Year	Emission category	Emission type						
		TOG	ROG	CO	NOx	SOx	PM	PM10
1996	Stationary	13	3	0	0	0	0	0
	Area-Wide	9	4	14	1	0	11	6
	Mobile	16	14	130	16	0	1	1
	Natural	-	-	-	-	-	-	-
	Total	**38**	**21**	**140**	**17**	**0**	**12**	**7**
2010	Stationary	15	2	0	0	-	0	0
	Area-Wide	9	4	11	1	0	11	6
	Mobile	7	7	63	8	0	1	0
	Natural	-	-	-	-	-	-	-
	Total	**31**	**13**	**75**	**9**	**0**	**12**	**7**

Source: California Air Resources Board 1999

San Francisco

Year	Emission category	Emission type						
		TOG	ROG	CO	NOx	SOx	PM	PM10
1996	Stationary	17	10	2	6	0	1	1
	Area-Wide	14	11	19	3	0	13	7
	Mobile	26	23	220	33	4	1	1
	Natural	-	-	-	-	-	-	-
	Total	**56**	**43**	**240**	**41**	**4**	**15**	**9**
2010	Stationary	18	10	2	5	0	1	1
	Area-Wide	12	9	14	2	0	14	8
	Mobile	10	9	110	21	4	1	1
	Natural	-	-	-	-	-	-	-
	Total	**40**	**28**	**130**	**29**	**5**	**16**	**10**

Source: California Air Resources Board 1999

San Mateo

Year	Emission category	Emission type						
		TOG	ROG	CO	NOx	SOx	PM	PM10
1996	Stationary	54	8	1	2	0	2	1
	Area-Wide	15	11	29	2	0	21	12
	Mobile	39	35	340	57	1	2	1
	Natural	0	0	0	0	-	0	0
	Total	**110**	**54**	**370**	**61**	**1**	**25**	**14**
2010	Stationary	57	8	1	2	0	2	1
	Area-Wide	14	9	22	2	0	22	12
	Mobile	16	15	170	38	1	2	1
	Natural	-	-	0	-	-	-	-
	Total	**88**	**31**	**190**	**42**	**1**	**26**	**15**

Source: California Air Resources Board 1999

Santa Clara

Year	Emission category	Emission type						
		TOG	ROG	CO	NOx	SOx	PM	PM10
1996	Stationary	180	23	11	15	1	4	2
	Area-Wide	40	25	58	5	0	74	40
	Mobile	78	69	680	100	2	4	3
	Natural	0	0	2	0	-	0	0
	Total	**290**	**120**	**750**	**120**	**3**	**82**	**46**
2010	Stationary	190	22	13	13	2	4	3
	Area-Wide	39	21	44	4	0	82	45
	Mobile	30	28	370	62	2	3	3
	Natural	0	0	2	-	-	0	0
	Total	**260**	**71**	**430**	**80**	**4**	**90**	**50**

Source: California Air Resources Board 1999

Solano

Year	Emission category	Emission type						
		TOG	ROG	CO	NOx	SOx	PM	PM10
1996	Stationary	37	14	2	11	17	1	1
	Area-Wide	11	7	22	1	0	33	18
	Mobile	30	27	210	37	1	3	3
	Natural	0	0	0	0	-	0	0
	Total	**78**	**48**	**230**	**50**	**18**	**38**	**22**
2010	Stationary	44	16	2	11	18	2	1
	Area-Wide	11	7	19	1	-	38	20
	Mobile	17	16	120	26	2	3	3
	Natural	-	-	0	-	-	-	-
	Total	**73**	**39**	**140**	**38**	**19**	**43**	**24**

Source: California Air Resources Board 1999

Total County Population, 1990 and 2000

County	Planning Region	1990 Population[2]	2000 Population[3]	Rank by 2000 Population
San Diego	SANDAG	2,498,016	2,813,833	3
Regional Average	**SANDAG**	**2,498,016**	**2,813,833**	
Imperial	SCAG	109,303	142,361	24
Los Angeles	SCAG	8,863,164	9,519,338	1
Orange	SCAG	2,410,556	2,846,289	2
Riverside	SCAG	1,170,413	1,545,387	6
San Bernardino	SCAG	1,418,380	1,709,434	4
Ventura	SCAG	669,016	753,197	12
Regional Average	**SCAG**	**2,440,139**	**2,752,668**	
Monterey	Central Coast	355,660	401,762	17
San Luis Obispo	Central Coast	217,162	246,681	22
Santa Barbara	Central Coast	369,608	399,347	18
Santa Cruz	Central Coast	229,734	255,602	20
Regional Average	**Central Coast**	**293,041**	**325,848**	
Fresno	Central Valley	667,490	799,407	10
Kern[1]	Central Valley	544,981	661,645	14
Kings	Central Valley	101,469	129,461	25
Merced	Central Valley	178,403	210,554	23
Sacramento	Central Valley	1,041,219	1,223,499	8
San Benito	Central Valley	36,697	53,234	26
San Joaquin	Central Valley	480,628	563,598	15
Stanislaus	Central Valley	370,522	446,997	16
Regional Average	**Central Valley**	**427,676**	**511,049**	
Alameda[1]	ABAG	1,304,346	1,443,741	7
Contra Costa	ABAG	803,732	948,816	9
Marin	ABAG	230,096	247,289	21
San Francisco	ABAG	723,959	776,733	11
San Mateo	ABAG	649,623	707,161	13
Santa Clara	ABAG	1,497,577	1,682,585	5
Solano[1]	ABAG	339,471	394,542	19
Regional Average	**ABAG**	**792,686**	**885,838**	

[1] Revised Census figures were used.

[2] Source: United States Census Bureau 1990a.

[3] Source: United States Census Bureau 2000.

Population Projections, 1990-2040

SANDAG Region

San Diego

Source	1990	1995	2000	2005	2010	2020	2030	2040
U.S. Census	2,498,016[1]	-	2,813,833	-	-	-	-	-
DOF	2,511,369[2]	-	2,943,001	-	3,441,436	3,917,001	4,484,673	5,116,228
SANDAG	-	2,669,300	-	3,223,400	3,437,600	3,853,300	-	-

Source: United States Census Bureau 1990a and 2000, State of California Department of Finance 1998, San Diego Association of Governments 1999e

[1] Data from April 1.

[2] Data from July 1.

SCAG Region

Imperial

Source	1990	1994	2000	2005	2010	2015	2020	2030	2040
U.S. Census	109,303[1]	-	142,361	-	-	-	-	-	-
DOF	110,749[2]	-	154,549	-	221,585	-	298,700	394,008	504,220
SCAG[3]	109,303	138,470	148,980	171,772	207,305	240,812	280,341	-	-
IVAG	-	131,103	164,727	-	206,267	233,238	261,735	-	-

Source: United States Census Bureau 1990a and 2000, State of California Department of Finance 1998, Southern California Association of Governments 1998, Imperial Valley Association of Governments 1996

[1] Data from April 1.

[2] Data from July 1.

[3] Projections from SCAG are subject to change, based on the agency's final numbers, not yet finalized.

Los Angeles

Source	1990	1994	2000	2005	2010	2015	2020	2030	2040
U.S. Census	8,863,052[1]	-	9,519,338	-	-	-	-	-	-
DOF	8,901,987[2]	-	9,838,861	-	10,604,452	-	11,575,693	12,737,077	13,888,161
North LA County	-	451,400	590,200	728,500	873,600	1,031,700	1,213,400	-	-
LA City	-	3,656,700	3,845,300	4,051,200	4,298,900	4,578,700	4,890,900	-	-
Arroyo Verdugo	-	538,000	556,800	578,000	604,200	647,400	684,000	-	-
San Gabriel Valley COG	-	1,482,300	1,566,700	1,624,400	1,673,500	1,728,700	1,805,200	-	-
Westside Cities	-	227,000	233,600	238,000	242,400	248,200	253,100	-	-
South Bay Cities Association	-	818,900	857,700	872,200	884,600	902,900	925,600	-	-
Gateway Cities COG	-	1,982,000	2,086,500	2,149,700	2,196,900	2,275,500	2,368,600	-	-
Las Virgines/Malibu COG	-	75,300	81,700	87,800	94,600	100,400	108,300	-	-
SCAG Total[3]	-	9,231,600	9,818,500	10,329,800	10,868,700	11,513,500	12,249,100	-	-

Source: United States Census Bureau 1990a and 2000, State of California Department of Finance 1998, Southern California Association of Governments 1998

[1] Data from April 1.

[2] Data from July 1.

[3] Projections from SCAG are subject to change, based on the agency's final numbers, not yet available.

Orange

Source	1990	1994	2000	2005	2010	2015	2020	2030	2040
U.S. Census	2,410,668[1]	-	2,846,289	-	-	-	-	-	-
DOF	2,417,552[2]	-	2,833,190	-	3,163,776	-	3,431,869	3,752,003	4,075,328
SCAG[3]	-	2,595,300	2,859,100	3,005,700	3,105,500	3,165,400	3,244,800	-	-
CDR	-	-	2,865,830	3,009,275	3,105,324	3,165,418	3,244,607	-	-

Source: United States Census Bureau 1990a and 2000, State of California Department of Finance 1998, Southern California Association of Governments 1998, Center for Demographic Research 1997

[1] Data from April 1.

[2] Data from July 1.

[3] Projections from SCAG are subject to change, based on the agency's numbers, not yet finalized.

Riverside

Source	1990	1994	2000	2005	2010	2015	2020	2030	2040
U.S. Census	1,170,413[1]	-	1,545,387	-	-	-	-	-	-
DOF	1,194,623[2]	-	1,570,885	-	2,125,537	-	2,773,431	3,553,281	4,446,277
SCAG[3]	-	1,376,900	1,687,800	1,976,900	2,265,300	2,531,700	2,816,000	-	-
WRCOG	-	1,066,200	1,315,300	1,564,900	1,814,100	2,033,900	2,264,000	-	-
CVAG	-	310,700	372,300	412,100	450,900	497,600	551,800	-	-

Source: United States Census Bureau 1990a and 2000, State of California Department of Finance 1998, Southern California Association of Governments 1998, Western Riverside Council of Governments 1998, Coachella Valley Association of Governments 1998

[1] Data from April 1.

[2] Data from July 1.

[3] Projections from SCAG are subject to change, based on the agency's final numbers, not yet available.

San Bernardino

Source	1990	1994	2000	2005	2010	2015	2020	2030	2040
U.S. Census	1,418,380[1]	-	1,709,434	-	-	-	-	-	-
DOF	1,436,696[2]	-	1,727,452	-	2,187,807	-	2,747,213	3,425,554	4,202,152
SCAG[3]	-	1,558,600	1,772,700	2,005,400	2,239,600	2,512,800	2,829,800	-	-

Source: United States Census Bureau 1990a and 2000, State of California Department of Finance 1998, Southern California Association of Governments 1998

[1] Data from April 1.

[2] Data from July 1.

[3] Projections from SCAG are subject to change, based on the agency's final numbers, not yet available.

Ventura

Source	1990	1994	2000	2005	2010	2015	2020	2030	2040
U.S. Census	669,016[1]	-	753,197	-	-	-	-	-	-
DOF	670,274[2]	-	753,820	-	854,580	-	981,565	1,127,592	1,278,426
SCAG[3]	-	-	736,645	754,530	810,728	864,761	932,322	-	-
VCOG	-	-	739,778	766,648	816,801	861,740	909,693	-	-

Source: United States Census Bureau 1990a and 2000, State of California Department of Finance 1998, Southern California Association of Governments 1998, Ventura Council of Governments 1999

[1] Data from April 1.

[2] Data from July 1.

[3] Projections from SCAG are subject to change, based on the agency's final numbers, not yet available.

Central Coast Region

Monterey

Source	1990	1995	2000	2005	2010	2015	2020	2030	2040
U.S. Census	355,660[1]	-	401,762	-	-	-	-	-	-
DOF	357,364[2]	-	401,886	-	479,638	-	575,102	700,064	855,213
AMBAG	355,660	362,874	400,907	435,453	472,562	503,669	536,609	-	-

Source: United States Census Bureau 1990a and 2000, State of California Department of Finance 1998, Association of Monterey Bay Area Governments 1997

[1] Data from April 1.

[2] Data from July 1.

San Luis Obispo

Source	1990	1995	2000	2005	2010	2015	2020	2030	2040
U.S. Census	217,162[1]	-	246,681	-	-	-	-	-	-
DOF	217,944[2]	-	254,818	-	324,741	-	392,329	461,839	535,901
SLOCOG	217,162	227,225	245,025	267,336	287,888	305,329	322,610	-	-

Source: United States Census Bureau 1990a and 2000, State of California Department of Finance 1998, San Luis Obispo Council of Governments 1999

[1] Data from April 1.

[2] Data from July 1.

Santa Barbara

Source	1990	1995	2000	2005	2010	2015	2020	2030	2040
U.S. Census	369,608[1]	-	399,347	-	-	-	-	-	-
DOF	370,893[2]	-	412,071	-	468,457	-	552,846	658,223	779,247
SBCAG	369,608	394,165	416,214	437,398	457,441	479,321	-	-	-

Source: United States Census Bureau 1990a and 2000, State of California Department of Finance 1998, Santa Barbara County Association of Governments 1994

[1] Data from April 1.

[2] Data from July 1.

Santa Cruz

Source	1990	1995	2000	2005	2010	2015	2020	2030	2040
U.S. Census	229,734[1]	-	255,602	-	-	-	-	-	-
DOF	230,341[2]	-	260,248	-	309,206	-	367,196	430,078	497,319
AMBAG	229,734	241,935	257,737	270,060	281,714	292,988	303,646	-	-

Source: United States Census Bureau 1990a and 2000, State of California Department of Finance 1998, Association of Monterey Bay Area Governments 1997

[1] Data from April 1.

[2] Data from July 1.

Central Valley Region

Fresno

Source	1990	2000	2005	2010	2015	2020	2025	2030	2040
U.S. Census	667,490[1]	799,407	-	-	-	-	-	-	-
DOF	673,608[2]	811,179	-	953,457	-	1,114,403	-	1,308,767	1,521,360
Fresno COG	-	821,797	908,338	1,002,153	1,096,227	1,195,465	1,301,240	-	-

Source: United States Census Bureau 1990a and 2000, State of California Department of Finance 1998, Council of Fresno County Governments 2000

[1] Data from April 1.

[2] Data from July 1.

Kern

Source	1990	2000	2010	2020	2030	2040
U.S. Census	544,981[1]	661,645	-	-	-	-
DOF	549,531[2]	677,372	859,818	1,073,748	1,327,013	1,623,671

Source: United States Census Bureau 1990a and 2000, State of California Department of Finance 1998

[1] Data from April 1.

[2] Data from July 1.

Kings

Source	1990	2000	2010	2020	2030	2040
U.S. Census	101,469[1]	129,461	-	-	-	-
DOF	102,238[2]	126,672	154,617	186,611	223,914	265,944

Source: United States Census Bureau 1990a and 2000, State of California Department of Finance 1998

1 Data from April 1.

2 Data from July 1.

Merced

Source	1990	1995	2000	2005	2010	2015	2020	2025	2030	2040
U.S. Census	178,403[1]	-	210,554	-	-	-	-	-	-	-
DOF	180,182[2]	-	215,256	-	264,420	-	319,785	-	385,120	460,020
MCAG	178,403	197,900	215,256	242,846	273,923	304,784	337,935	373,170	-	-

Source: United States Census Bureau 1990a and 2000, State of California Department of Finance 1998, Merced County Association of Governments 2000

[1] Data from April 1.

[2] Data from July 1.

Sacramento

Source	1990	2000	2005	2010	2015	2020	2022	2030	2040
U.S. Census	1,041,219[1]	1,223,499	-	-	-	-	-	-	-
DOF	1,049,010[2]	1,212,527	-	1,436,286	-	1,651,765	-	1,884,210	2,122,769
SACOG	-	1,203,900	1,306,350	1,431,500	1,555,233	1,620,933	1,646,283	-	-

Source: United States Census Bureau 1990a and 2000, State of California Department of Finance 1998, Sacramento Area Council of Governments 1999

[1] Data from April 1.

[2] Data from July 1.

San Benito

Source	1990	1995	2000	2005	2010	2015	2020	2030	2040
U.S. Census	36,697[1]	-	53,234	-	-	-	-	-	-
DOF	36,970[2]	-	51,853	-	68,040	-	82,276	97,941	114,922
AMBAG	36,697	42,473	50,163	57,313	64,830	72,648	80,653	-	-

Source: United States Census Bureau 1990a and 2000, State of California Department of Finance 1998, Association of Monterey Bay Area Governments 1997

[1] Data from April 1.

[2] Data from July 1.

San Joaquin

Source	1990	1995	2000	2005	2010	2015	2020	2030	2040
U.S. Census	480,628[1]	-	563,598	-	-	-	-	-	-
DOF	483,817[2]	-	579,712	-	725,868	-	884,375	1,060,442	1,250,610
SJCOG	483,800	533,393	582,704	635,415	687,930	752,080	821,851	-	-

Source: United States Census Bureau 1990a and 2000, State of California Department of Finance 1998, San Joaquin Council of Governments 2000

[1] Data from April 1.

[2] Data from July 1.

Stanislaus

Source	1990	2000	2010	2020	2030	2040
U.S. Census	370,522[1]	446,997	-	-	-	-
DOF	375,089[2]	459,025	585,519	708,950	846,998	998,906

Source: United States Census Bureau 1990a and 2000, State of California Department of Finance 1998

[1] Data from April 1.

[2] Data from July 1.

ABAG Region

Alameda

Source	1990	1995	2000	2005	2010	2015	2020	2030	2040
U.S. Census	1,304,346[1]	-	1,443,741	-	-	-	-	-	-
DOF	1,284,825[2]	-	1,470,155	-	1,654,485	-	1,793,139	1,938,547	2,069,530
ABAG	1,276,702	1,345,900	1,462,700	1,573,200	1,615,900	1,641,700	1,671,700	-	-

Source: United States Census Bureau 1990a and 2000, State of California Department of Finance 1998, Association of Bay Area Governments 1999

[1] Data from April 1.

[2] Data from July 1.

Contra Costa

Source	1990	1995	2000	2005	2010	2015	2020	2030	2040
U.S. Census	803,732[1]	-	948,816	-	-	-	-	-	-
DOF	807,608[2]	-	931,946	-	1,025,857	-	1,104,725	1,189,501	1,264,400
ABAG	803,732	865,300	941,900	1,021,500	1,076,800	1,124,900	1,169,000	-	-

Source: United States Census Bureau 1990a and 2000, State of California Department of Finance 1998, Association of Bay Area Governments 1999

[1] Data from April 1.

[2] Data from July 1.

Marin

Source	1990	1995	2000	2005	2010	2015	2020	2030	2040
U.S. Census	230,096[1]	-	247,289	-	-	-	-	-	-
DOF	230,155[2]	-	248,397	-	258,569	-	268,630	282,864	297,307
ABAG	230,096	238,500	250,400	259,900	267,900	272,400	275,400	-	-

Source: United States Census Bureau 1990a and 2000, State of California Department of Finance 1998, Association of Bay Area Governments 1999

[1] Data from April 1.

[2] Data from July 1.

San Francisco

Source	1990	1995	2000	2005	2010	2015	2020	2030	2040
U.S. Census	723,959[1]	-	776,733	-	-	-	-	-	-
DOF	727,873[2]	-	792,049	-	782,469	-	750,904	724,863	681,924
ABAG	723,959	751,700	799,000	815,600	818,800	812,900	808,800	-	-

Source: United States Census Bureau 1990a and 2000, State of California Department of Finance 1998, Association of Bay Area Governments 1999

[1] Data from April 1.

[2] Data from July 1.

San Mateo

Source	1990	1995	2000	2005	2010	2015	2020	2030	2040
U.S. Census	649,623[1]	-	707,161	-	-	-	-	-	-
DOF	651,401[2]	-	747,061	-	815,532	-	855,506	907,423	953,089
ABAG	649,623	687,500	737,100	767,100	779,700	795,700	809,800	-	-

Source: United States Census Bureau 1990a and 2000, State of California Department of Finance 1998, Association of Bay Area Governments 1999

[1] Data from April 1.

[2] Data from July 1.

Santa Clara

Source	1990	1995	2000	2005	2010	2015	2020	2030	2040
U.S. Census	1,497,577[1]	-	1,682,585	-	-	-	-	-	-
DOF	1,504,402[2]	-	1,763,252	-	2,021,417	-	2,196,750	2,400,564	2,595,253
ABAG	1,497,577	1,599,100	1,755,300	1,854,000	1,919,000	1,970,600	2,016,700	-	-

Source: United States Census Bureau 1990a and 2000, State of California Department of Finance 1998, Association of Bay Area Governments 1999

[1] Data from April 1.

[2] Data from July 1.

Solano

Source	1990	1995	2000	2005	2010	2015	2020	2030	2040
U.S. Census	339,471[1]	-	394,542	-	-	-	-	-	-
DOF	344,116[2]	-	399,841	-	479,136	-	552,105	625,619	698,430
ABAG	339,471	370,700	401,300	450,300	481,700	514,800	547,400	-	-

Source: United States Census Bureau 1990a and 2000, State of California Department of Finance 1998, Association of Bay Area Governments 1999

[1] Data from April 1.

[2] Data from July 1.

Percent of Population in Various Ethnic/Racial Categories, 1990 and 2000 (Note: Numbers were rounded so percents may not total 100.)

SANDAG Region

County	Census year	% Non-Hispanic White	% Hispanic all races	% Non-Hispanic Black	% Non-Hispanic Asian	% Non-Hispanic American Indian	% Non-Hispanic other	% Non-Hispanic two or more races
San Diego	1990	65.4	20.4	6.0	7.4	0.6	0.2	N/A
	2000	55.0	26.7	5.5	9.1	0.5	0.2	2.9

Source: United States Census Bureau 1990a, 2000

SCAG Region

County	Census year	% Non-Hispanic White	% Hispanic all races	% Non-Hispanic Black	% Non-Hispanic Asian	% Non-Hispanic American Indian	% Non-Hispanic other	% Non-Hispanic two or more races
Imperial	1990	29.0	65.8	2.1	1.5	1.4	0.1	N/A
	2000	20.2	72.2	3.6	1.7	1.2	0.1	0.9
Los Angeles	1990	40.8	37.8	10.5	10.2	0.3	0.2	N/A
	2000	31.1	44.6	9.5	12.1	0.3	0.2	2.3
Orange	1990	64.5	23.4	1.6	10.0	0.4	0.1	N/A
	2000	51.3	30.8	1.5	13.8	0.3	0.2	2.3
Riverside	1990	64.4	26.3	5.1	3.3	0.7	0.2	N/A
	2000	51.0	36.2	6.0	3.8	0.7	0.2	2.2
San Bernardino	1990	60.8	26.7	7.7	3.9	0.7	0.2	N/A
	2000	44.0	39.2	8.8	4.8	0.6	0.2	2.5
Ventura	1990	65.9	26.4	2.2	4.9	0.5	0.1	N/A
	2000	56.8	33.4	1.8	5.4	0.4	0.1	2.0

Source: United States Census Bureau 1990a, 2000

Central Coast Region

County	Census year	% Non-Hispanic White	% Hispanic all Races	% Non-Hispanic Black	% Non-Hispanic Asian	% Non-Hispanic American Indian	% Non-Hispanic other	% Non-Hispanic two or more races
Monterey	1990	52.3	33.6	6.0	7.1	0.6	0.3	N/A
	2000	40.3	46.8	3.5	6.2	0.4	0.3	2.5
San Luis Obispo	1990	81.2	13.3	2.0	2.7	0.8	0.1	N/A
	2000	76.1	16.3	1.9	2.7	0.6	0.1	2.2
Santa Barbara	1990	66.1	26.6	2.5	4.1	0.6	0.2	N/A
	2000	56.9	34.2	2.1	4.1	0.5	0.1	2.1
Santa Cruz	1990	74.5	20.4	1.0	3.4	0.6	0.2	N/A
	2000	65.5	26.8	0.8	3.4	0.5	0.3	2.6

Source: United States Census Bureau 1990a, 2000

Central Valley Region

County	Census year	% Non-Hispanic White	% Hispanic all races	% Non-Hispanic Black	% Non-Hispanic Asian	% Non-Hispanic American Indian	% Non-Hispanic other	% Non-Hispanic two or more races
Fresno	1990	50.7	35.5	4.7	8.1	0.8	0.3	N/A
	2000	39.7	44.0	5.0	8.0	0.8	0.2	2.3
Kern[1]	1990	62.6	27.9	5.3	2.7	1.0	0.2	N/A
	2000	49.5	38.4	5.7	3.3	0.9	0.2	2.1
Kings	1990	53.6	34.1	7.6	3.4	0.9	0.4	N/A
	2000	41.6	43.6	8.0	3.1	1.0	0.2	2.4
Merced	1990	54.2	32.6	4.4	7.9	0.6	0.3	N/A
	2000	40.6	45.3	3.6	6.8	0.5	0.2	2.9
Sacramento	1990	69.3	11.7	9.0	8.8	1.0	0.2	N/A
	2000	57.8	16.0	9.7	11.4	0.7	0.3	4.2
San Benito	1990	51.2	45.8	0.5	1.8	0.6	0.2	N/A
	2000	46.0	47.9	0.9	2.3	0.5	0.1	2.2
San Joaquin	1990	58.8	23.4	5.2	11.6	0.8	0.2	N/A
	2000	47.4	30.5	6.4	11.3	0.6	0.2	3.5
Stanislaus	1990	70.5	21.8	1.7	4.9	0.9	0.2	N/A
	2000	57.3	31.7	2.4	4.4	0.8	0.2	3.2

Source: United States Census Bureau 1990a, 2000

ABAG Region

County	Census year	% Non-Hispanic White	% Hispanic all races	% Non-Hispanic Black	% Non-Hispanic Asian	% Non-Hispanic American Indian	% Non-Hispanic other	% Non-Hispanic two or more races
Alameda[1]	1990	52.1	13.9	17.1	14.2	0.5	0.2	N/A
	2000	40.9	19.0	14.6	20.9	0.4	0.3	3.9
Contra Costa	1990	70.0	11.4	9.1	9.2	0.6	0.2	N/A
	2000	57.9	17.7	9.2	11.2	0.4	0.3	3.4
Marin	1990	84.6	7.8	3.3	3.9	0.3	0.1	N/A
	2000	78.6	11.1	2.8	4.6	0.3	0.3	2.4
San Francisco	1990	46.6	13.9	10.5	28.4	0.4	0.2	N/A
	2000	43.6	14.1	7.6	31.1	0.3	0.3	3.0
San Mateo	1990	60.4	17.7	5.2	16.3	0.4	0.2	N/A
	2000	49.8	21.9	3.4	21.1	0.2	0.3	3.3
Santa Clara	1990	58.1	21.0	3.5	16.8	0.5	0.2	N/A
	2000	44.2	24.0	2.6	25.7	0.3	0.2	3.0
Solano[1]	1990	61.1	13.4	12.9	11.9	0.7	0.2	N/A
	2000	49.2	17.6	14.6	13.2	0.6	0.2	4.5

Source: United States Census Bureau 1990a, 2000

[1]These are the revised 1990 United States Census numbers.

Percent of Population that was Foreign-Born in 1990

County	Planning Region	Percent of Population	Regional Average
San Diego	SANDAG	17.2	**17.2**
Imperial	SCAG	28.9	
Los Angeles	SCAG	32.7	
Orange	SCAG	23.9	
Riverside	SCAG	14.8	
San Bernardino	SCAG	13.2	
Ventura	SCAG	17.0	**21.8**
Monterey	Central Coast	21.6	
San Luis Obispo	Central Coast	7.5	
Santa Barbara	Central Coast	16.9	
Santa Cruz	Central Coast	14.0	**15.0**
Fresno	Central Valley	17.8	
Kern	Central Valley	12.2	
Kings	Central Valley	14.1	
Merced	Central Valley	19.8	
Sacramento	Central Valley	10.0	
San Benito	Central Valley	17.1	
San Joaquin	Central Valley	16.4	
Stanislaus	Central Valley	14.3	**15.2**
Alameda	ABAG	18.0	
Contra Costa	ABAG	13.3	
Marin	ABAG	13.3	
San Francisco	ABAG	34.0	
San Mateo	ABAG	25.4	
Santa Clara	ABAG	23.2	
Solano	ABAG	13.0	**20.0**

Source: United States Census Bureau 1990b

Percent of Population Speaking Language other than English at Home in 1990

SANDAG Region

County	Total Population persons age 5 and older	Persons age 5 and older speaking language other than English at home: Total speaking language other than English at home	Persons age 5 and older speaking Spanish at home	Persons age 5 and older speaking language other than Spanish or English at home
San Diego	2,304,648	578,029	370,386	207,643
% of total	100.0	25.1	16.1	9.0
% of non-English speakers		100.0	64.1	35.9

Source: United States Census Bureau 1990b

SCAG Region

County	Total Population persons age 5 and older	Persons age 5 and older speaking language other than English at home: Total speaking language other than English at home	Persons age 5 and older speaking Spanish at home	Persons age 5 and older speaking language other than Spanish or English at home
Imperial	99,306	63,363	61,300	2,063
% of total	100.0	63.8	61.7	2.1
% of non-English speakers		100.0	96.7	3.3
Los Angeles	8,135,401	3,694,768	2,564,775	1,129,993
% of total	100.0	45.4	31.5	13.9
% of non-English speakers		100.0	69.4	30.6
Orange	2,227,217	689,543	421,287	268,256
% of total	100.0	31.0	18.9	12.0
% of non-English speakers		100.0	61.1	38.9
Riverside	1,066,829	264,828	210,390	54,438
% of total	100.0	24.8	19.7	5.1
% of non-English speakers		100.0	79.4	20.6
San Bernardino	1,281,149	300,019	228,238	71,781
% of total	100.0	23.4	17.8	5.6
% of non-English speakers		100.0	76.1	23.9
Ventura	615,479	161,697	123,603	38,094
% of total	100.0	26.3	20.1	6.2
% of non-English speakers		100.0	76.4	23.6
Regional Total	13,425,381	5,174,218	3,609,593	1,564,625
% of total	100.0	38.5	26.9	11.7
% of non-English speakers		100.0	69.8	30.2

Source: United States Census Bureau 1990b

Central Coast Region

County	Total Population persons age 5 and older	Persons age 5 and older speaking language other than English at home: Total speaking language other than English at home	Persons age 5 and older speaking Spanish at home	Persons age 5 and older speaking language other than Spanish or English at home
Monterey	324,434	115,048	86,066	28,982
% of total	100.0	35.5	26.5	8.9
% of non-English speakers		100.0	74.8	25.2
San Luis Obispo	203,396	24,647	16,235	8,412
% of total	100.0	12.1	8.0	4.1
% of non-English speakers		100.0	65.9	34.1
Santa Barbara	343,010	86,473	65,679	20,794
% of total	100.0	25.2	19.1	6.1
% of non-English speakers		100.0	76.0	24.0
Santa Cruz	213,400	45,208	33,281	11,927
% of total	100.0	21.2	15.6	5.6
% of non-English speakers		100.0	73.6	26.4
Regional Total	1,084,240	271,376	201,261	70,115
% of total	100.0	25.0	18.6	6.5
% of non-English speakers		100.0	74.2	25.8

Source: United States Census Bureau 1990b

Central Valley Region

County	Total Population persons age 5 and older	Persons age 5 and older speaking language other than English at home: Total speaking language other than English at home	Persons age 5 and older speaking Spanish at home	Persons age 5 and older speaking language other than Spanish or English at home
Fresno	605,363	213,711	156,144	57,567
% of total	100.0	35.3	25.8	9.5
% of non-English speakers		100.0	73.1	26.9
Kern	491,220	120,739	102,465	18,274
% of total	100.0	24.6	20.9	3.7
% of non-English speakers		100.0	84.9	15.1
Kings	92,063	28,540	22,772	5,768
% of total	100.0	31.0	24.7	6.3
% of non-English speakers		100.0	79.8	20.2
Merced	160,413	57,697	40,056	17,641
% of total	100.0	36.0	25.0	11.0
% of non-English speakers		100.0	69.4	30.6
Sacramento	957,591	155,840	63,168	92,672
% of total	100.0	16.3	6.6	9.7
% of non-English speakers		100.0	40.5	59.5

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San Benito	33,548	12,738	11,374	1,364
% of total	100.0	38.0	33.9	4.1
% of non-English speakers		100.0	89.3	10.7
San Joaquin	439,210	122,574	67,234	55,340
% of total	100.0	27.9	15.3	12.6
% of non-English speakers		100.0	54.9	45.1
Stanislaus	336,788	84,304	54,010	30,294
% of total	100.0	25.0	16.0	9.0
% of non-English speakers		100.0	64.1	35.9
Regional Total	3,116,196	796,143	517,223	278,920
% of total	100.0	25.5	16.6	9.0
% of non-English speakers		100.0	65.0	35.0

Source: United States Census Bureau 1990b

ABAG Region

		Persons age 5 and older speaking language other than English at home		
County	**Total Population persons age 5 and older**	**Total speaking language other than English at home**	**Persons age 5 and older speaking Spanish at home**	**Persons age 5 and older speaking language other than Spanish or English at home**
Alameda	1,183,716	294,079	106,032	188,047
% of total	100.0	24.8	9.0	15.9
% of non-English speakers		100.0	36.1	63.9
Contra Costa	743,500	134,159	55,291	78,868
% of total	100.0	18.0	7.4	10.6
% of non-English speakers		100.0	41.2	58.8
Marin	216,487	32,469	13,102	19,367
% of total	100.0	15.0	6.1	8.9
% of non-English speakers		100.0	40.4	59.6
San Francisco	688,689	292,093	75,933	216,160
% of total	100.0	42.4	11.0	31.4
% of non-English speakers		100.0	26.0	74.0
San Mateo	605,676	194,482	82,509	111,973
% of total	100.0	32.1	13.6	18.5
% of non-English speakers		100.0	42.4	57.6
Santa Clara	1,386,450	447,790	188,648	259,142
% of total	100.0	32.3	13.6	18.7
% of non-English speakers		100.0	42.1	57.9
Solano	310,769	59,927	25,312	34,615
% of total	100.0	19.3	8.1	11.1
% of non-English speakers		100.0	42.2	57.8
Regional Total	5,135,287	1,454,999	546,827	908,172
% of total	100.0	28.3	10.6	17.7
% of non-English speakers		100.0	37.6	62.4

Source: United States Census Bureau 1990b

Percent of Public School Students that were Limited-English-Proficient (LEP) in 1990

County	Planning Region	Percent of Students	Regional Average
San Diego	SANDAG	22.1	**22.1**
Imperial	SCAG	46.2	
Los Angeles	SCAG	35.4	
Orange	SCAG	30.1	
Riverside	SCAG	19.1	
San Bernardino	SCAG	16.2	
Ventura	SCAG	20.6	**27.9**
Monterey	Central Coast	34.8	
San Luis Obispo	Central Coast	8.3	
Santa Barbara	Central Coast	27.1	
Santa Cruz	Central Coast	26.6	
Monterey	Central Coast	34.8	**26.3**
Fresno	Central Valley	27.0	
Kern	Central Valley	18.6	
Kings	Central Valley	16.0	
Merced	Central Valley	31.8	
Sacramento	Central Valley	16.9	
San Benito	Central Valley	16.2	
San Joaquin	Central Valley	21.2	
Stanislaus	Central Valley	18.4	**20.8**
Alameda	ABAG	19.0	
Contra Costa	ABAG	10.5	
Marin	ABAG	9.5	
San Francisco	ABAG	30.8	
San Mateo	ABAG	21.5	
Santa Clara	ABAG	22.2	
Solano	ABAG	8.7	**17.5**

Source: California Department of Education 1998b

Limited-English-Proficient (LEP) Students in County Public School Districts, by Language, 1997-1998 (Categories with 1 Percent or More are Listed) – SANDAG Region

San Diego	# of Students	Percent of Total LEP
Spanish	85,299	83.6
Pilipino	3,070	3.0
Vietnamese	3,068	3.0
Lao	1,181	1.2
Khmer	1,093	1.1
Other	8,278	8.1

Source: California Department of Education 1998b

Limited-English-Proficient (LEP) Students in County Public School Districts, by Language, 1997-1998 (Categories with 1 Percent or More are Listed) – SCAG Region

Imperial	# of Students	Percent of Total LEP
Spanish	14,833	99.0
Other	143	1.0
Los Angeles	**# of Students**	**Percent of Total LEP**
Spanish	491,094	87.5
Armenian	12,721	2.3
Korean	8,740	1.6
Cantonese	8,115	1.4
Khmer	6,213	1.1
Vietnamese	6,207	1.1
Mandarin	5,454	1.0
Other	22,749	4.1
Orange	**# of Students**	**Percent of Total LEP**
Spanish	111,873	81.2
Vietnamese	13,089	9.5
Korean	2,965	2.2
Other	9,908	7.2
Riverside	**# of Students**	**Percent of Total LEP**
Spanish	51,495	94.5
Other	2,982	5.5
San Bernardino	**# of Students**	**Percent of Total LEP**
Spanish	52,178	91.4
Vietnamese	1,173	2.1
Khmer	553	1.0
Other	3,172	5.6
Ventura	**# of Students**	**Percent of Total LEP**
Spanish	25,719	95.1
Pilipino	358	1.3
Other	956	3.5

Source: California Department of Education 1998b

Limited-English-Proficient (LEP) Students in County Public School Districts, by Language, 1997-1998 (Categories with 1 Percent or More are Listed) – Central Coast Region

Monterey	**# of Students**	**Percent of Total LEP**
Spanish	22,543	94.8
Pilipino	335	1.4
Vietnamese	291	1.2
Other	610	2.6
San Luis Obispo	**# of Students**	**Percent of Total LEP**
Spanish	2,873	95.7
Other	130	4.3
Santa Barbara	**# of Students**	**Percent of Total LEP**
Spanish	16,123	93.9
Hmong	238	1.4
Other	812	4.7
Santa Cruz	**# of Students**	**Percent of Total LEP**
Spanish	10,290	97.6
Other	258	2.4

Source: California Department of Education 1998b

Limited-English-Proficient (LEP) Students in County Public School Districts, by Language, 1997-1998 (Categories with 1 Percent or More are Listed) – Central Valley Region

Fresno	**# of Students**	**Percent of Total LEP**
Spanish	31,068	65.8
Hmong	10,289	21.8
Lao	1,672	3.5
Khmer	1,615	3.4
Punjabi	713	1.5
Other	1,874	4.0

Kern	**# of Students**	**Percent of Total LEP**
Spanish	24,903	94.5
Pilipino	295	1.1
Other	1,151	4.4

Kings	**# of Students**	**Percent of Total LEP**
Spanish	3,761	94.6
Hmong	102	2.6
Other	113	2.8

Merced	**# of Students**	**Percent of Total LEP**
Spanish	10,989	70.5
Hmong	3,349	21.5
Mien	402	2.6
Punjabi	300	1.9
Lao	161	1.0
Other	388	2.5

Sacramento	**# of Students**	**Percent of Total LEP**
Spanish	11,151	32.2
Hmong	6,684	19.3
Vietnamese	2,670	7.7
Russian	2,588	7.5
Cantonese	2,286	6.6
Mien	1,761	5.1
Lao	1,002	2.9
Punjabi	594	1.7
Pilipino	562	1.6
Armenian	356	1.0
Other	5,030	14.5

San Benito	**# of Students**	**Percent of Total LEP**
Spanish	1,668	98.4
Other	27	1.6

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San Joaquin	# of Students	Percent of Total LEP
Spanish	12,526	53.4
Khmer	3,639	15.5
Hmong	2,717	11.6
Vietnamese	1,502	6.4
Lao	701	3.0
Punjabi	385	1.6
Pilipino	361	1.5
Other	1,622	6.9

Stanislaus	# of Students	Percent of Total LEP
Spanish	13,095	77.7
Khmer	1,070	6.4
Lao	375	2.2
Hmong	373	2.2
Punjabi	282	1.7
Other	1,648	9.8

Source: California Department of Education 1998b

Limited-English-Proficient (LEP) Students in County Public School Districts, by Language, 1997-1998 (Categories with 1 Percent or More are Listed) – ABAG Region

Alameda	# of Students	Percent of Total LEP
Spanish	20,492	51.4
Cantonese	4,335	10.9
Vietnamese	2,786	7.0
Pilipino	1,805	4.5
Khmer	1,296	3.2
Farsi	1,098	2.8
Punjabi	1,091	2.7
Mien	922	2.3
Mandarin	899	2.3
Korean	525	1.3
Arabic	505	1.3
Other	4,128	10.4

Contra Costa	# of Students	Percent of Total LEP
Spanish	11,008	69.5
Pilipino	681	4.3
Mien	589	3.7
Vietnamese	506	3.2
Punjabi	362	2.3
Lao	316	2.0
Cantonese	296	1.9
Farsi	268	1.7
Korean	172	1.1
Mandarin	162	1.0
Other	1,472	9.3

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Marin	**# of Students**	**Percent of Total LEP**
Spanish	2,122	79.0
Vietnamese	106	3.9
Korean	36	1.3
Farsi	31	1.2
Other	390	14.5

San Francisco	**# of Students**	**Percent of Total LEP**
Spanish	6,991	36.6
Cantonese	6,679	35.0
Pilipino	1,010	5.3
Vietnamese	652	3.4
Russian	645	3.4
Mandarin	422	2.2
Khmer	262	1.4
Arabic	214	1.1
Korean	201	1.1
Other	2,023	10.6

San Mateo	**# of Students**	**Percent of Total LEP**
Spanish	14,640	73.5
Pilipino	969	4.9
Cantonese	657	3.3
Mandarin	375	1.9
Arabic	222	1.1
Korean	204	1.0
Other	2,858	14.3

Santa Clara	**# of Students**	**Percent of Total LEP**
Spanish	32,444	57.9
Vietnamese	9,109	16.3
Pilipino	2,542	4.5
Cantonese	1,406	2.5
Mandarin	1,319	2.4
Punjabi	1,174	2.1
Khmer	1,051	1.9
Korean	898	1.6
Other	6,049	10.8

Solano	**# of Students**	**Percent of Total LEP**
Spanish	4,205	68.7
Pilipino	741	12.1
Vietnamese	204	3.3
Punjabi	152	2.5
Mien	106	1.7
Hmong	84	1.4
Lao	71	1.2
Other	557	9.1

Source: California Department of Education 1998b

Percent Race/Ethnicity and Percent Change in Counties, 1990-2040

SANDAG Region

San Diego

Racial/ethnic group	Year 1990	2000	2010	2020	2030	2040	Cumulative percent change
White	65.37	59.31	53.80	48.36	43.22	38.58	
	-	-6.06	-5.51	-5.44	-5.15	-4.63	-26.78
Hispanic	20.57	25.02	29.14	33.57	38.07	42.40	
	-	4.44	4.13	4.42	4.51	4.33	21.83
Asian/Pacific Islander	7.45	9.07	10.65	11.78	12.73	13.34	
	-	1.62	1.58	1.13	0.95	0.61	5.89
Black	6.01	6.05	5.90	5.82	5.55	5.30	
	-	0.04	-0.15	-0.08	-0.27	-0.26	-0.71
American Indian	0.60	0.55	0.51	0.47	0.43	0.38	
	-	-0.05	-0.04	-0.03	-0.05	-0.05	-0.23

Source: State of California Department of Finance 1998

SCAG Region

Imperial

Racial/ethnic group	Year 1990	2000	2010	2020	2030	2040	Cumulative percent change
White	28.98	21.75	20.08	18.07	16.26	14.86	
	-	-7.23	-1.67	-2.01	-1.81	-1.40	-14.13
Hispanic	66.04	72.09	73.69	75.75	77.79	79.46	
	-	6.05	1.59	2.07	2.04	1.68	13.43
Asian/Pacific Islander	1.49	1.65	2.47	2.91	3.14	3.21	
	-	0.16	0.82	0.45	0.22	0.08	1.72
Black	2.07	3.55	2.99	2.62	2.29	2.03	
	-	1.48	-0.56	-0.37	-0.33	-0.26	-0.04
American Indian	1.42	0.96	0.77	0.64	0.53	0.43	
	-	-0.46	-0.19	-0.13	-0.12	-0.09	-0.99

Source: State of California Department of Finance 1998

Los Angeles

Racial/ethnic group	Year 1990	2000	2010	2020	2030	2040	Cumulative percent change
White	40.81	32.15	26.75	22.72	19.25	15.87	
	-	-8.66	-5.40	-4.03	-3.47	-3.38	-24.94
Hispanic	38.01	45.56	50.99	55.28	59.52	63.87	
	-	7.55	5.42	4.30	4.24	4.35	25.86
Asian/Pacific Islander	10.32	12.58	13.73	14.31	14.58	14.57	
	-	2.26	1.16	0.58	0.26	0.00	4.25
Black	10.53	9.43	8.26	7.44	6.44	5.50	
	-	-1.10	-1.17	-0.82	-1.00	-0.94	-5.03
American Indian	0.33	0.28	0.27	0.25	0.22	0.18	
	-	-0.04	-0.01	-0.02	-0.03	-0.03	-0.14

Source: State of California Department of Finance 1998

Orange

Racial/ethnic group	Year 1990	2000	2010	2020	2030	2040	Cumulative percent change
White	64.34	55.08	47.48	40.59	33.81	27.12	
	-	-9.26	-7.60	-6.89	-6.78	-6.69	-37.22
Hispanic	23.60	29.86	34.12	38.49	42.99	47.80	
	-	6.26	4.26	4.37	4.50	4.81	24.20
Asian/Pacific Islander	10.07	13.20	16.50	18.94	21.23	23.13	
	-	3.13	3.30	2.45	2.29	1.90	13.06
Black	1.63	1.56	1.58	1.64	1.64	1.63	
	-	-0.07	0.03	0.06	0.00	-0.01	0.00
American Indian	0.35	0.31	0.32	0.33	0.32	0.31	
	-	-0.05	0.01	0.01	0.00	-0.01	-0.04

Source: State of California Department of Finance 1998

Riverside

Racial/ethnic group	Year 1990	2000	2010	2020	2030	2040	Cumulative percent change
White	64.47	59.33	51.35	44.59	38.70	33.74	
	-	-5.14	-7.97	-6.76	-5.89	-4.96	-30.73
Hispanic	26.38	30.05	36.40	42.18	47.54	52.30	
	-	3.68	6.35	5.78	5.37	4.75	25.92
Asian/Pacific Islander	3.30	4.43	6.04	6.98	7.64	8.01	
	-	1.12	1.62	0.94	0.66	0.37	4.71
Black	5.13	5.42	5.46	5.54	5.46	5.34	
	-	0.29	0.04	0.08	-0.09	-0.12	0.21
American Indian	0.72	0.77	0.74	0.70	0.66	0.61	
	-	0.05	-0.03	-0.03	-0.05	-0.05	-0.11

Source: State of California Department of Finance 1998

San Bernardino

Racial/ethnic group	Year 1990	2000	2010	2020	2030	2040	Cumulative percent change
White	60.79	52.69	43.78	36.99	31.08	26.01	
	-	-8.09	-8.92	-6.78	-5.91	-5.07	-34.78
Hispanic	26.84	32.64	39.82	45.78	51.42	56.53	
	-	5.80	7.19	5.96	5.64	5.10	29.69
Asian/Pacific Islander	3.94	5.19	6.58	7.33	7.89	8.20	
	-	1.25	1.38	0.76	0.56	0.30	4.26
Black	7.73	8.82	9.22	9.34	9.12	8.84	
	-	1.09	0.39	0.13	-0.22	-0.28	1.11
American Indian	0.70	0.65	0.61	0.55	0.48	0.42	
	-	-0.05	-0.05	-0.06	-0.06	-0.06	-0.28

Source: State of California Department of Finance 1998

Ventura

Racial/ethnic group	1990	2000	2010	2020	2030	2040	Cumulative percent change
			Year				
White	65.84	59.98	54.82	50.48	46.06	41.83	
	-	-5.86	-5.16	-4.34	-4.42	-4.23	-24.01
Hispanic	26.56	30.91	34.40	37.48	40.82	44.20	
	-	4.36	3.48	3.08	3.34	3.38	17.65
Asian/Pacific Islander	4.91	6.41	8.10	9.35	10.49	11.40	
	-	1.46	1.70	1.25	1.14	0.91	6.49
Black	2.18	2.22	2.23	2.29	2.28	2.26	
	-	0.04	0.01	0.06	-0.01	-0.02	0.08
American Indian	0.51	0.48	0.45	0.41	0.35	0.30	
	-	-0.03	-0.03	-0.05	-0.05	-0.05	-0.21

Source: State of California Department of Finance 1998

Central Coast Region

Monterey

Racial/ethnic group	1990	2000	2010	2020	2030	2040	Cumulative percent change
			Year				
White	52.41	45.15	35.01	26.05	18.24	11.67	
	-	-7.26	-10.14	-8.96	-7.81	-6.57	-40.74
Hispanic	33.79	41.10	51.95	62.09	71.28	79.22	
	-	7.31	10.85	10.14	9.18	7.94	45.43
Asian/Pacific Islander	7.16	7.31	7.07	6.43	5.79	5.11	
	-	0.16	-0.24	-0.65	-0.64	-0.68	-2.05
Black	6.04	5.85	5.45	4.99	4.34	3.72	
	-	-0.19	-0.40	-0.46	-0.65	-0.62	-2.32
American Indian	0.60	0.58	0.51	0.44	0.35	0.27	
	-	-0.01	-0.07	-0.08	-0.09	-0.08	-0.33

Source: State of California Department of Finance 1998

San Luis Obispo

Racial/ethnic group	1990	2000	2010	2020	2030	2040	Cumulative percent change
			Year				
White	81.23	79.80	77.94	75.49	72.79	70.20	
	-	-1.43	-1.86	-2.44	-2.71	-2.58	-11.02
Hispanic	13.36	14.57	16.15	18.45	21.09	23.72	
	-	1.21	1.59	2.29	2.64	2.62	10.35
Asian/Pacific Islander	2.65	2.93	3.24	3.34	3.43	3.46	
	-	0.27	0.31	0.09	0.10	0.03	0.80
Black	2.00	2.03	2.08	2.21	2.24	2.24	
	-	0.03	0.06	0.13	0.03	0.00	0.24
American Indian	0.76	0.68	0.58	0.51	0.44	0.38	
	-	-0.08	-0.09	-0.07	-0.06	-0.06	-0.38

Source: State of California Department of Finance 1998

Santa Barbara

Racial/ethnic group	Year 1990	2000	2010	2020	2030	2040	Cumulative percent change
White	66.06	59.26	51.25	42.59	34.86	28.08	
	-	-6.79	-8.01	-8.66	-7.73	-6.78	-37.97
Hispanic	26.72	32.69	40.19	49.13	57.31	64.64	
	-	5.97	7.50	8.93	8.18	7.34	37.92
Asian/Pacific Islander	4.09	4.91	5.51	5.39	5.21	4.92	
	-	0.81	0.60	-0.12	-0.18	-0.28	0.83
Black	2.55	2.50	2.38	2.19	1.93	1.69	
	-	-0.05	-0.12	-0.18	-0.26	-0.25	-0.86
American Indian	0.58	0.64	0.67	0.71	0.69	0.66	
	-	0.05	0.03	0.04	-0.01	-0.03	0.08

Source: State of California Department of Finance 1998

Santa Cruz

Racial/ethnic group	Year 1990	2000	2010	2020	2030	2040	Cumulative percent change
White	74.57	69.78	65.52	60.60	55.20	49.64	
	-	-4.79	-4.26	-4.91	-5.40	-5.57	-24.94
Hispanic	20.49	24.48	28.43	33.55	39.13	44.94	
	-	3.99	3.95	5.12	5.58	5.81	24.45
Asian/Pacific Islander	3.35	4.11	4.48	4.37	4.33	4.22	
	-	0.75	0.37	-0.10	-0.05	-0.11	0.86
Black	1.02	1.10	1.13	1.11	1.05	0.99	
	-	0.09	0.02	-0.02	-0.06	-0.06	-0.03
American Indian	0.57	0.53	0.45	0.37	0.29	0.22	
	-	-0.04	-0.08	-0.08	-0.08	-0.07	-0.35

Source: State of California Department of Finance 1998

Central Valley Region

Fresno

Racial/ethnic group	Year 1990	2000	2010	2020	2030	2040	Cumulative percent change
White	50.79	44.52	39.72	35.13	30.85	27.00	
	-	-6.27	-4.81	-4.59	-4.28	-3.85	-23.79
Hispanic	35.56	39.28	42.30	45.43	48.57	51.55	
	-	3.72	3.02	3.13	3.15	2.98	15.99
Asian/Pacific Islander	8.20	10.46	12.05	13.28	14.37	15.23	
	-	2.26	1.59	1.23	1.09	0.86	7.03
Black	4.69	4.84	4.97	5.15	5.18	5.20	
	-	0.15	0.13	0.18	0.04	0.02	0.51
American Indian	0.76	0.89	0.97	1.02	1.03	1.02	
	-	0.14	0.08	0.05	0.01	-0.01	0.26

Source: State of California Department of Finance 1998

Kern

Racial/ethnic group	1990	2000	2010	2020	2030	2040	Cumulative percent change
			Year				
White	62.81	56.55	49.07	42.27	36.07	30.66	
	-	-6.25	-7.49	-6.80	-6.20	-5.41	-32.14
Hispanic	28.10	33.03	39.50	45.90	52.09	57.68	
	-	4.93	6.48	6.40	6.18	5.60	29.59
Asian/Pacific Islander	2.75	3.43	4.35	4.73	4.96	5.03	
	-	0.67	0.92	0.38	0.23	0.07	2.28
Black	5.31	5.95	6.06	6.12	5.99	5.81	
	-	0.64	0.12	0.06	-0.14	-0.18	0.50
American Indian	1.03	1.05	1.02	0.97	0.90	0.81	
	-	0.01	-0.03	-0.05	-0.08	-0.09	-0.22

Source: State of California Department of Finance 1998

Kings

Racial/ethnic group	1990	2000	2010	2020	2030	2040	Cumulative percent change
			Year				
White	53.96	48.61	44.11	39.86	35.72	31.93	
	-	-5.36	-4.50	-4.24	-4.15	-3.78	-22.03
Hispanic	34.18	38.33	42.18	46.13	50.35	54.38	
	-	4.15	3.85	3.94	4.23	4.03	20.21
Asian/Pacific Islander	3.34	3.93	4.39	4.57	4.69	4.72	
	-	0.59	0.46	0.17	0.12	0.03	1.38
Black	7.63	8.29	8.45	8.61	8.47	8.25	
	-	0.66	0.16	0.16	-0.15	-0.22	0.62
American Indian	0.89	0.85	0.87	0.83	0.78	0.72	
	-	-0.04	0.02	-0.04	-0.05	-0.06	-0.17

Source: State of California Department of Finance 1998

Merced

Racial/ethnic group	1990	2000	2010	2020	2030	2040	Cumulative percent change
			Year				
White	54.27	48.19	41.37	35.65	30.40	25.78	
	-	-6.08	-6.82	-5.72	-5.25	-4.62	-28.49
Hispanic	32.71	36.44	40.38	44.18	48.03	51.53	
	-	3.73	3.94	3.81	3.85	3.50	18.82
Asian/Pacific Islander	7.99	10.79	14.10	16.38	18.20	19.70	
	-	2.80	3.32	2.27	1.82	1.50	11.71
Black	4.40	4.01	3.62	3.31	2.95	2.62	
	-	-0.39	-0.39	-0.31	-0.36	-0.33	-1.77
American Indian	0.63	0.58	0.53	0.48	0.42	0.37	
	-	-0.06	-0.05	-0.05	-0.06	-0.06	-0.27

Source: State of California Department of Finance 1998

Sacramento

Racial/ethnic group	Year 1990	2000	2010	2020	2030	2040	Cumulative percent change
White	69.35	63.71	57.56	52.36	47.35	42.55	
	-	-5.64	-6.15	-5.20	-5.01	-4.80	-26.80
Hispanic	11.72	13.34	15.22	17.24	19.52	21.88	
	-	1.62	1.87	2.02	2.28	2.36	10.16
Asian/Pacific Islander	8.92	11.78	15.19	17.40	19.54	21.47	
	-	2.86	3.41	2.21	2.14	1.93	12.55
Black	9.06	10.11	10.94	11.88	12.46	13.00	
	-	1.05	0.83	0.93	0.59	0.53	3.94
American Indian	0.95	1.05	1.10	1.13	1.13	1.11	
	-	0.10	0.04	0.03	0.00	-0.02	0.16

Source: State of California Department of Finance 1998

San Benito

Racial/ethnic group	Year 1990	2000	2010	2020	2030	2040	Cumulative percent change
White	51.50	54.27	54.91	53.58	51.45	49.34	
	-	2.77	0.64	-1.32	-2.13	-2.10	-2.15
Hispanic	45.69	42.64	41.53	42.62	44.60	46.55	
	-	-3.05	-1.11	1.09	1.98	1.95	0.86
Asian/Pacific Islander	1.78	2.17	2.55	2.76	2.92	3.05	
	-	0.39	0.38	0.21	0.16	0.14	1.27
Black	0.46	0.40	0.48	0.48	0.50	0.53	
	-	-0.05	0.07	0.01	0.02	0.03	0.07
American Indian	0.58	0.51	0.53	0.55	0.54	0.53	
	-	-0.06	0.02	0.02	-0.02	-0.01	-0.05

Source: State of California Department of Finance 1998

San Joaquin

Racial/ethnic group	Year 1990	2000	2010	2020	2030	2040	Cumulative percent change
White	58.84	53.49	49.00	45.09	41.20	37.64	
	-	-5.36	-4.48	-3.92	-3.89	-3.56	-21.21
Hispanic	23.51	25.78	28.26	31.26	34.54	37.74	
	-	2.27	2.48	3.00	3.28	3.20	14.23
Asian/Pacific Islander	11.69	14.71	16.69	17.45	18.03	18.38	
	-	3.02	1.98	0.76	0.58	0.35	6.69
Black	5.16	5.32	5.35	5.53	5.58	5.62	
	-	0.15	0.04	0.17	0.06	0.04	0.46
American Indian	0.79	0.71	0.69	0.67	0.64	0.61	
	-	-0.08	-0.02	-0.02	-0.03	-0.03	-0.17

Source: State of California Department of Finance 1998

Stanislaus

Racial/ethnic group	Year 1990	2000	2010	2020	2030	2040	Cumulative percent change
White	70.52	65.11	59.79	54.81	49.85	45.21	
	-	-5.41	-5.32	-4.98	-4.97	-4.63	-25.31
Hispanic	21.95	25.38	28.66	32.43	36.55	40.58	
	-	3.43	3.28	3.78	4.11	4.03	18.63
Asian/Pacific Islander	4.95	6.62	8.43	9.40	10.13	10.64	
	-	1.67	1.81	0.97	0.72	0.51	5.69
Black	1.66	1.95	2.20	2.44	2.59	2.71	
	-	0.29	0.25	0.24	0.15	0.12	1.05
American Indian	0.93	0.95	0.92	0.91	0.89	0.86	
	-	0.02	-0.03	-0.01	-0.02	-0.03	-0.06

Source: State of California Department of Finance 1998

ABAG Region

Alameda

Racial/ethnic group	Year 1990	2000	2010	2020	2030	2040	Cumulative percent change
White	53.15	44.09	36.99	30.92	25.04	19.16	
	-	-9.07	-7.10	-6.06	-5.88	-5.88	-34.00
Hispanic	14.29	18.22	20.76	23.19	25.91	28.84	
	-	3.94	2.54	2.43	2.72	2.93	14.55
Asian/Pacific Islander	14.60	20.09	25.24	28.80	32.36	35.65	
	-	5.50	5.15	3.55	3.56	3.30	21.06
Black	17.43	17.14	16.58	16.68	16.32	16.01	
	-	-0.30	-0.56	0.10	-0.36	-0.31	-1.42
American Indian	0.53	0.46	0.43	0.41	0.38	0.34	
	-	-0.07	-0.03	-0.02	-0.03	-0.04	-0.19

Source: State of California Department of Finance 1998

Contra Costa

Racial/ethnic group	Year 1990	2000	2010	2020	2030	2040	Cumulative percent change
White	69.69	63.91	59.52	55.55	51.23	46.88	
	-	-5.79	-4.39	-3.97	-4.32	-4.35	-22.82
Hispanic	11.43	13.83	16.10	18.61	21.60	24.81	
	-	2.40	2.27	2.51	2.99	3.21	13.38
Asian/Pacific Islander	9.26	12.40	14.33	15.46	16.75	17.83	
	-	3.14	1.93	1.13	1.30	1.08	8.57
Black	9.07	9.34	9.54	9.88	9.96	10.07	
	-	0.27	0.20	0.35	0.08	0.11	1.00
American Indian	0.55	0.53	0.52	0.49	0.46	0.41	
	-	-0.02	-0.02	-0.02	-0.04	-0.04	-0.14

Source: State of California Department of Finance 1998

Marin

Racial/ethnic group	Year 1990	2000	2010	2020	2030	2040	Cumulative percent change
White	84.61	79.10	75.04	71.30	67.46	63.70	
	-	-5.51	-4.05	-3.74	-3.84	-3.76	-20.90
Hispanic	7.87	11.97	14.08	16.49	19.25	22.12	
	-	4.10	2.12	2.41	2.76	2.87	14.25
Asian/Pacific Islander	3.96	5.26	6.87	7.92	8.90	9.72	
	-	1.30	1.61	1.05	0.98	0.82	5.76
Black	3.28	3.43	3.76	4.07	4.19	4.29	
	-	0.15	0.33	0.30	0.12	0.10	1.01
American Indian	0.29	0.25	0.24	0.22	0.19	0.16	
	-	-0.04	-0.01	-0.02	-0.03	-0.03	-0.13

Source: State of California Department of Finance 1998

San Francisco

Racial/ethnic group	Year 1990	2000	2010	2020	2030	2040	Cumulative percent change
White	46.57	40.05	36.81	33.36	29.07	23.69	
	-	-6.52	-3.24	-3.45	-4.29	-5.38	-22.88
Hispanic	13.97	16.19	18.19	20.49	23.30	26.81	
	-	2.22	2.00	2.30	2.81	3.51	12.84
Asian/Pacific Islander	28.57	33.43	34.87	36.08	38.09	40.50	
	-	4.86	1.44	1.20	2.01	2.41	11.93
Black	10.53	9.99	9.79	9.74	9.22	8.71	
	-	-0.54	-0.20	-0.05	-0.52	-0.51	-1.81
American Indian	0.36	0.34	0.34	0.34	0.32	0.29	
	-	-0.02	0.00	0.00	-0.02	-0.03	-0.07

Source: State of California Department of Finance 1998

San Mateo

Racial/ethnic group	Year 1990	2000	2010	2020	2030	2040	Cumulative percent change
White	60.27	50.45	42.18	35.25	28.42	21.61	
	-	-9.82	-8.27	-6.94	-6.83	-6.81	-38.66
Hispanic	17.77	23.09	26.96	30.86	35.05	39.52	
	-	5.32	3.87	3.90	4.19	4.47	21.75
Asian/Pacific Islander	16.38	21.53	26.49	29.96	33.22	36.15	
	-	5.15	4.96	3.47	3.26	2.93	19.78
Black	5.22	4.50	3.93	3.51	2.91	2.35	
	-	-0.73	-0.56	-0.42	-0.59	-0.56	-2.87
American Indian	0.36	0.43	0.44	0.43	0.40	0.36	
	-	0.07	0.00	-0.01	-0.03	-0.04	0.00

Source: State of California Department of Finance 1998

Santa Clara

Racial/ethnic group	Year 1990	2000	2010	2020	2030	2040	Cumulative percent change
White	57.98	47.79	38.43	30.31	22.45	14.94	
	-	-10.19	-9.36	-8.12	-7.86	-7.51	-43.04
Hispanic	21.09	24.16	26.85	30.33	34.07	38.02	
	-	3.06	2.69	3.48	3.74	3.95	16.93
Asian/Pacific Islander	16.97	24.21	31.00	35.69	40.03	43.82	
	-	7.24	6.79	4.68	4.34	3.79	26.85
Black	3.51	3.55	3.45	3.42	3.23	3.03	
	-	0.04	-0.10	-0.03	-0.19	-0.20	-0.48
American Indian	0.44	0.29	0.27	0.25	0.22	0.19	
	-	-0.15	-0.03	-0.02	-0.03	-0.03	-0.26

Source: State of California Department of Finance 1998

Solano

Racial/ethnic group	Year 1990	2000	2010	2020	2030	2040	Cumulative percent change
White	60.95	55.58	51.00	47.48	43.89	40.42	
	-	-5.37	-4.58	-3.52	-3.59	-3.47	-20.54
Hispanic	13.43	15.17	16.86	18.66	20.81	23.06	
	-	1.74	1.69	1.80	2.15	2.25	9.63
Asian/Pacific Islander	11.98	14.70	17.28	18.53	19.83	20.92	
	-	2.72	2.58	1.25	1.30	1.09	8.94
Black	12.92	13.88	14.22	14.72	14.90	15.07	
	-	0.96	0.34	0.50	0.18	0.17	2.16
American Indian	0.72	0.68	0.64	0.61	0.57	0.53	
	-	-0.04	-0.03	-0.03	-0.04	-0.04	-0.19

Source: State of California Department of Finance 1998

Median Age by Gender and Race/Ethnicity, by County, 1990-2040

SANDAG Region

San Diego

Year	Total	Hispanic		Black		Asian/Pacific Islander		American Indian		White	
		Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
1990	30	23	24	24	25	26	30	26	30	32	35
2000	31	25	25	24	26	29	32	31	35	32	36
2010	31	24	24	24	26	30	34	36	39	32	36
2020	30	24	24	25	27	31	35	38	41	32	36
2030	31	24	25	25	28	33	36	39	43	33	36
2040	31	25	25	26	28	34	37	40	44	34	37

Source: State of California Department of Finance 1998

SCAG Region

Imperial

Year	Total	Hispanic		Black		Asian/Pacific Islander		American Indian		White	
		Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
1990	28	22	25	32	32	38	34.5	24	27	38	40
2000	27	23	25	28	35	38	38	32	35	36	42
2010	27	24	26	28	36	35	36	38	40	32	37
2020	28	25	26	29	38	35	37	44	46	32	36
2030	28	25	27	29	39	36	39	48	51	33	37
2040	28	26	27	29	40	37	40	53	55	33	38

Source: State of California Department of Finance 1998

Los Angeles

Year	Total	Hispanic		Black		Asian/Pacific Islander		American Indian		White	
		Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
1990	30	23	24	28	30	30	32	30	33	35	38
2000	33	26	26	31	35	33	36	37	39	40	42
2010	35	26	26	34	40	36	39	43	46	46	48
2020	34	26	26	35	41	37	40	47	51	51	53
2030	35	27	27	38	41	39	42	49	54	50	53
2040	34	26	27	39	43	41	44	50	54	50	53

Source: State of California Department of Finance 1998

Orange

Year	Total	Hispanic		Black		Asian/Pacific Islander		American Indian		White	
		Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
1990	31	23	24	27	27	28	29	29	32	34	36
2000	34	26	23	27	28	30	32	35	38	38	40
2010	35	24	22	28	29	32	34	41	43	44	45
2020	34	24	23	29	30	33	35	45	47	46	49
2030	34	24	24	30	32	35	36	47	48	46	49
2040	33	24	24	30	32	36	38	47	47	48	50

Source: State of California Department of Finance 1998

Riverside

Year	Total	Hispanic		Black		Asian/Pacific Islander		American Indian		White	
		Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
1990	31	23	23	27	28	26	29	29	30	34	36
2000	33	24	22	29	29	28	30	30	32	38	40
2010	32	23	22	29	29	28	31	31	32	40	42
2020	31	23	23	29	30	28	32	31	33	40	42
2030	31	23	23	30	31	29	33	33	35	42	44
2040	31	24	24	30	31	31	35	34	36	43	45

Source: State of California Department of Finance 1998

San Bernardino

Year	Total	Hispanic		Black		Asian/Pacific Islander		American Indian		White	
		Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
1990	29	23	23	24	26	26	29	28	30	31	33
2000	30	23	23	26	27	28	31	32	35	35	37
2010	30	22	22	27	28	28	32	35	37	37	39
2020	30	23	23	28	30	29	33	38	40	38	40
2030	30	23	23	29	31	30	34	39	41	40	42
2040	29	24	24	29	31	32	35	40	42	42	44

Source: State of California Department of Finance 1998

Ventura

Year	Total	Hispanic		Black		Asian/Pacific Islander		American Indian		White	
		Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
1990	31	23	24	27	28	29	32	30	32	34	35
2000	34	26	25	31	31	31	35	36	38	38	40
2010	35	26	25	35	35	33	36	40	42	40	42
2020	35	26	26	35	37	33	37	44	46	40	42
2030	35	27	27	35	38	35	38	44	49	42	44
2040	35	27	27	35.5	38	36	39	43	48	43	45

Source: State of California Department of Finance 1998

Central Coast Region

Monterey

Year	Total	Hispanic		Black		Asian/Pacific Islander		American Indian		White	
		Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
1990	29	23	22	26	25	29	33	29	31	32	36
2000	32	24	21	27	31	33	38	36	38	38	41
2010	30	23	21	28	34	35	40	42	44	43	46
2020	29	23	21	30	38	37	41	49	51	49	49
2030	28	23	21	30	42	39	43	53	55	52	49
2040	26	23	22	31	46	41	44	55.5	56	56	53

Source: State of California Department of Finance 1998

San Luis Obispo

Year	Total	Hispanic		Black		Asian/Pacific Islander		American Indian		White	
		Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
1990	33	25	23	29	24	23	27	30	34	34	36
2000	34	26	24	30	27	30	32	37.5	42	34	36
2010	34	26	23	31	30	36	35	42	47.5	34	37
2020	34	26	24	33	32	37	37	47	51	35	38
2030	35	26	24	35	34	39	39	50	54	36	39
2040	35	26	25	37	35	41	40	51	55	36	39

Source: State of California Department of Finance 1998

Santa Barbara

Year	Total	Hispanic		Black		Asian/Pacific Islander		American Indian		White	
		Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
1990	31	24	23	27	26	27	27	28	32	33	37
2000	34	27	25	32	30	30	32	34	39	38	41
2010	35	25	23	37	34	32	37	40	43	42	45
2020	32	25	24	38	36	34	38	44	46	44	47
2030	32	25	24	40	39	36	40	46	47	45	47
2040	31	25	24	40	40	39	42	47	48	47	49

Source: State of California Department of Finance 1998

Santa Cruz

Year	Total	Hispanic		Black		Asian/Pacific Islander		American Indian		White	
		Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
1990	32	23	23	25	24	29	30	30	31	34	36
2000	36	24	23	31	30	32	34	37.5	40	39	41
2010	38	23	22	35	34	34	37	43	45	42	44
2020	37	24	23	38	37	36	39	50	52	45	46
2030	37	24	23	40	40	39	41	56	59	46	47
2040	36	24	23	41	41	41	43	59	62	48	49

Source: State of California Department of Finance 1998

Central Valley Region

Fresno

Year	Total	Hispanic		Black		Asian/Pacific Islander		American Indian		White	
		Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
1990	29	23	23	23	26	19	21	28	29	34	36
2000	30	24	24	23	26	21	22	30	32	37	39
2010	30	25	25	24	27	24	24	31	34	39	42
2020	31	26	26	26	28	26	26	33	35	40	42
2030	31	27	26	26	29	27	27	34	37	41	44
2040	31	27	27	27	29	29	29	35	38	42	45

Source: State of California Department of Finance 1998

Kern

Year	Total	Hispanic		Black		Asian/Pacific Islander		American Indian		White	
		Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
1990	29	22	22	26	26	29	31	29	32	32	34
2000	30	23	21	27	27	29	32	35	39	36	37
2010	30	23	21	28	28	30	32	38	42	36	39
2020	29	23	22	29	29	31	32	41	45	37	40
2030	29	23	22	29	30	33	33	43	46	39	42
2040	29	23	23	29	30	34	34	44	47	40	43

Source: State of California Department of Finance 1998

Kings

Year	Total	Hispanic		Black		Asian/Pacific Islander		American Indian		White	
		Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
1990	27	24	23	27	27	24	29	23	26	30	32
2000	28	25	23	27	29	26	31	25	30	30	34
2010	28	25	23	27	30	26	31	30	33	31	34
2020	28	25	23	28	31	27	32	33	38	32	35
2030	29	25	24	29	32	27	33	36	40	33	37
2040	29	25	24	30	33	29	34	38	42	34	37

Source: State of California Department of Finance 1998

Merced

Year	Total	Hispanic		Black		Asian/Pacific Islander		American Indian		White	
		Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
1990	27	22	22	25.5	26	16	18	31	31	31	33
2000	28	23	22	28	28	18	20	38	38	34	37
2010	28	23	23	29	30	21	23	40	43	36	39
2020	29	24	23	31	32	22	24	42	45	37	40
2030	29	24	24	32	34	23	25	45	47	40	42
2040	29	25	25	33	35	25	26	46	49	41	44

Source: State of California Department of Finance 1998

Sacramento

Year	Total	Hispanic		Black		Asian/Pacific Islander		American Indian		White	
		Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
1990	31	25	25	26	27	26	29	28	30	33	34
2000	34	26	27	27	28	26	30	33	35	37	39
2010	34	26	26	28	29	26	29	35	38	39	42
2020	34	26	26	28	30	26	30	37	40	39	42
2030	35	26	27	29	31	28	31	38	41	41	43
2040	35	26	27	30	32	29	33	39	42	42	45

Source: State of California Department of Finance 1998

San Benito

Year	Total	Hispanic		Black		Asian/Pacific Islander		American Indian		White	
		Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
1990	30	24	24	28.5	18	34	35	38	34	35	36
2000	32	26	25	29	23	32	35	45	43	36	38
2010	32	26	26	26	26	30	32	42	43	36	37
2020	33	26	26	28	29	29	33	41	42	37	39
2030	33	27	27	29	31	30	33	38	43	38	40
2040	34	27	28	29	31	32	35	39	42	39	40

Source: State of California Department of Finance 1998

San Joaquin

Year	Total	Hispanic		Black		Asian/Pacific Islander		American Indian		White	
		Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
1990	30	24	24	25	28	22	24	29	30	33	35
2000	32	27	25	27	27	24	25	33	35	36	39
2010	32	26	25	27	27	26	28	34	36	38	40
2020	32	26	25	28	28	28	30	34	36	39	40
2030	33	26	25	29	29	30	32	34	36	41	42
2040	33	26	26	29	29	32	33	34	36	42	43

Source: State of California Department of Finance 1998

Stanislaus

Year	Total	Hispanic		Black		Asian/Pacific Islander		American Indian		White	
		Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
1990	30	22	22	26	27	20	23	30	32	32	34
2000	32	23	22	26	27	23	24	34	35	35	38
2010	31	23	23	27	27	25	27	35	37	36	39
2020	32	23	23	28	28	28	29	34	37	37	39
2030	32	24	24	28	29	29	31	34	36	39	41
2040	32	24	24	29	29	31	33	35	37	40	42

Source: State of California Department of Finance 1998

ABAG Region

Alameda

Year	Total	Hispanic		Black		Asian/Pacific Islander		American Indian		White	
		Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
1990	32	25	26	28	31	29	31	29	31	34	37
2000	35	27	27	30	34	31	33	35	37	39	42
2010	37	28	27	31	36	32	34	41	43	45	47
2020	37	28	28	32	36	33	35	44	48	50	52
2030	37	29	29	34	38	35	37	45	50	50	53
2040	38	29	29	34	38	36	39	47	50	51	53

Source: State of California Department of Finance 1998

Contra Costa

Year	Total	Hispanic		Black		Asian/Pacific Islander		American Indian		White	
		Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
1990	33	25	26	27	30	30	32	31	33	35	37
2000	37	27	27	28	32	31	35	37	40	39	41
2010	38	27	27	30	33	33	37	43	46	42	45
2020	38	28	28	31	35	35	38	47	50	42	46
2030	39	29	29	33	36	37	40	51	54	43	46
2040	39	29	28	34	36	38	41	53	55	44	48

Source: State of California Department of Finance 1998

Marin

Year	Total	Hispanic		Black		Asian/Pacific Islander		American Indian		White	
		Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
1990	37	26	29	30	30	31	34	33	35	38	40
2000	38	29	30	32	35	34	38	40	44	38	40
2010	38	29	29	33	36	35	39	46	51	38	40
2020	37	28	27	33	38	35	40	49	57	38	39
2030	38	28	28	34	40	37	41	51	59	39	40
2040	38	27	28	34	40	38	43	55	61	39	40

Source: State of California Department of Finance 1998

San Francisco

Year	Total	Hispanic		Black		Asian/Pacific Islander		American Indian		White	
		Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
1990	35	29	31	32	33	33	35	33	33	37	39
2000	39	33	34	34	37	36	38	40	40	43	44
2010	45	37	37	37	40	39	43	48	48	50	50
2020	50	37	37	39	42	42	46	55	55	58	58
2030	50	37	38	41	44	44	49	62	62	65	65
2040	49	37	38	44	48	46	49	64	66	71	72

Source: State of California Department of Finance 1998

San Mateo

Year	Total	Hispanic		Black		Asian/Pacific Islander		American Indian		White	
		Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
1990	34	25	26	29	31	30	32	30	34	37	40
2000	37	28	28	34	36	33	35	37	40	42	44
2010	39	29	29	39	41	34	37	43	47	47	49
2020	39	29	29	41	44	35	38	48	52	51	54
2030	39	30	30	44	46	37	40	51	55.5	50	54
2040	39	30	30	48	50	38	41	54	57	51	54

Source: State of California Department of Finance 1998

Santa Clara

Year	Total	Hispanic		Black		Asian/Pacific Islander		American Indian		White	
		Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
1990	31	25	25	28	28	29	30	29	31	33	36
2000	35	28	27	33	32	31	32	37	39	39	41
2010	37	28	27	37	37	32	33	44	46	46	47
2020	37	28	28	39	39	33	35	50	53	52	53
2030	37	29	29	40	41	35	36	52	56	56	57
2040	37	29	29	41	42	36	38	50	56	58	60

Source: State of California Department of Finance 1998

Solano

Year	Total	Hispanic		Black		Asian/Pacific Islander		American Indian		White	
		Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
1990	30	25	25	27	28	27	31	28	30	31	33
2000	34	29	26	31	30	28	33	35	37	36	37
2010	34	29	27	31	31	29	34	38	40	38	39
2020	35	29	27	32	33	31	36	40	42	38	39
2030	36	29	28	33	34	33	37	42	45	40	41
2040	36	29	28	34	35	34	38	42	44	41	43

Source: State of California Department of Finance 1998

Building Trends by Region and County, 1987-1998

SANDAG Region

San Diego

Year	Total Residential Incorporated	Total Residential Unincorporated	Total Residential	Total Non-Residential Incorporated	Total Non-Residential Unincorporated	Total Non-Residential Valuation
1987	$2,304,934.00	$589,133.00	$2,894,067.00	$1,191,948.00	$92,197.00	$1,284,145.00
1988	$2,412,681.00	$1,044,208.00	$3,456,889.00	$1,107,574.00	$94,766.00	$1,202,340.00
1989	$1,944,387.00	$597,047.00	$2,541,434.00	$1,173,222.00	$61,412.00	$1,234,634.00
1990	$1,618,063.50	$493,759.70	$2,111,823.20	$886,060.00	$69,906.30	$955,966.30
1991	$1,085,092.10	$307,810.00	$1,392,902.10	$600,441.50	$54,625.20	$655,066.70
1992	$799,889.60	$254,505.70	$1,054,395.30	$487,238.80	$41,085.10	$528,323.90
1993	$821,961.80	$183,309.50	$1,005,271.30	$495,729.70	$40,547.30	$536,277.00
1994	$1,007,940.30	$210,918.20	$1,218,858.50	$423,371.90	$26,236.20	$449,608.10
1995	$971,110.80	$216,842.80	$1,187,953.60	$598,500.10	$28,796.30	$627,296.40
1996	$1,097,349.90	$261,006.50	$1,358,356.40	$694,190.90	$44,402.40	$738,593.30
1997	$1,691,957.80	$340,814.90	$2,032,772.70	$903,428.70	$54,802.00	$958,230.70
1998	$1,884,806.30	$429,251.90	$2,314,058.20	$1,139,532.80	$71,746.00	$1,211,278.80

Source: Construction Industry Research Board 1988-1999

Regional Average, Based on 1987-1998

Total Residential Incorporated	Total Residential Unincorporated	Total Residential	Total Non-Residential Incorporated	Total Non-Residential Unincorporated	Total Non-Residential Valuation
$1,470,014.51	$410,717.27	$1,880,731.78	$808,436.53	$56,710.15	$865,146.68

Source: Construction Industry Research Board 1988-1999

SCAG Region

Imperial

Year	Total Residential Incorporated	Total Residential Unincorporated	Total Residential	Total Non-Residential Incorporated	Total Non-Residential Unincorporated	Total Non-Residential Valuation
1987	$22,067.00	$4,816.00	$26,883.00	$6,365.00	$152,970.00	$159,335.00
1988	$36,357.00	$7,114.00	$43,471.00	$6,580.00	$127,298.00	$133,878.00
1989	$48,404.00	$4,048.00	$52,452.00	$14,842.00	$16,207.00	$31,049.00
1990	$63,030.30	$5,268.30	$68,298.60	$22,984.80	$5,861.20	$28,846.00
1991	$60,220.00	$8,388.90	$68,608.90	$15,195.50	$5,368.30	$20,563.80
1992	$78,027.30	$10,566.00	$88,593.30	$27,087.80	$15,050.00	$42,137.80
1993	$54,094.80	$7,134.30	$61,229.10	$23,861.20	$3,510.80	$27,372.00
1994	$66,619.00	$9,987.10	$76,606.10	$12,609.60	$2,844.10	$15,453.70
1995	$38,084.60	$6,333.60	$44,418.20	$9,737.40	$13,320.20	$23,057.60
1996	$26,975.90	$10,001.70	$36,977.60	$14,069.80	$4,110.80	$18,180.60
1997	$28,494.60	$7,266.20	$35,760.80	$19,788.90	$2,965.30	$22,754.20
1998	$39,263.80	$4,524.90	$43,788.70	$23,189.10	$6,391.90	$29,581.00

Source: Construction Industry Research Board 1988-1999

Los Angeles

Year	Total Residential Incorporated	Total Residential Unincorporated	Total Residential	Total Non-Residential Incorporated	Total Non-Residential Unincorporated	Total Non-Residential Valuation
1987	$4,101,847.00	$1,114,412.00	$5,216,259.00	$3,557,706.00	$421,059.00	$3,978,765.00
1988	$4,696,542.00	$804,497.00	$5,501,039.00	$4,278,795.00	$421,171.00	$4,699,966.00
1989	$5,575,068.00	$867,361.00	$6,442,429.00	$4,224,276.00	$260,426.00	$4,484,702.00
1990	$3,647,575.90	$507,989.30	$4,155,565.20	$3,534,963.50	$296,115.90	$3,831,079.40
1991	$2,686,442.30	$511,097.70	$3,197,540.00	$2,540,390.50	$199,205.00	$2,739,595.50
1992	$2,230,042.00	$370,345.20	$2,600,387.20	$1,974,286.10	$160,783.80	$2,135,069.90
1993	$1,623,252.20	$286,846.20	$1,910,098.40	$2,012,624.10	$163,885.40	$2,176,509.50
1994	$1,854,756.20	$299,716.70	$2,154,472.90	$2,155,768.80	$137,152.20	$2,292,921.00
1995	$1,931,249.50	$325,363.80	$2,256,613.30	$1,831,860.80	$161,161.90	$1,993,022.70
1996	$1,710,871.60	$381,294.20	$2,092,165.80	$1,966,181.30	$133,190.20	$2,099,371.50
1997	$2,001,819.50	$501,741.00	$2,503,560.50	$2,105,964.40	$131,325.90	$2,237,290.30
1998	$2,283,962.00	$528,546.10	$2,812,508.10	$2,893,929.40	$231,177.60	$3,125,107.00

Source: Construction Industry Research Board 1988-1999

Orange

Year	Total Residential Incorporated	Total Residential Unincorporated	Total Residential	Total Non-Residential Incorporated	Total Non-Residential Unincorporated	Total Non-Residential Valuation
1987	$1,165,284.00	$772,453.00	$1,937,737.00	$1,348,164.00	$133,009.00	$1,481,173.00
1988	$1,523,249.00	$1,029,633.00	$2,552,882.00	$1,431,334.00	$173,699.00	$1,605,033.00
1989	$1,402,789.00	$772,663.00	$2,175,452.00	$1,393,584.00	$137,858.00	$1,531,442.00
1990	$906,970.70	$485,245.90	$1,392,216.60	$1,053,909.80	$118,741.60	$1,172,651.40
1991	$807,300.80	$281,814.40	$1,089,115.20	$730,821.00	$66,647.80	$797,468.80
1992	$792,936.70	$239,258.20	$1,032,194.90	$539,116.80	$28,004.40	$567,121.20
1993	$764,125.80	$319,590.10	$1,083,715.90	$464,583.70	$32,145.60	$496,729.30
1994	$1,202,224.00	$543,076.80	$1,745,300.80	$517,656.50	$42,899.80	$560,556.30
1995	$896,628.10	$398,669.30	$1,295,297.40	$561,945.50	$20,766.60	$582,712.10
1996	$1,076,603.90	$452,232.60	$1,528,836.50	$706,492.60	$54,317.50	$760,810.10
1997	$1,466,056.00	$541,026.70	$2,007,082.70	$974,295.90	$105,392.10	$1,079,688.00
1998	$1,385,497.70	$478,589.60	$1,864,087.30	$1,359,643.00	$170,050.20	$1,529,693.20

Source: Construction Industry Research Board 1988-1999

Riverside

Year	Total Residential Incorporated	Total Residential Unincorporated	Total Residential	Total Non-Residential Incorporated	Total Non-Residential Unincorporated	Total Non-Residential Valuation
1987	$910,977.00	$676,746.00	$1,587,723.00	$424,841.00	$138,178.00	$563,019.00
1988	$1,539,823.00	$1,699,467.00	$3,239,290.00	$360,517.00	$196,885.00	$557,402.00
1989	$1,850,332.00	$945,948.00	$2,796,280.00	$414,585.00	$234,768.00	$649,353.00
1990	$1,117,722.60	$617,351.50	$1,735,074.10	$387,423.90	$239,940.00	$627,363.90
1991	$737,351.20	$302,288.30	$1,039,639.50	$362,055.70	$94,281.00	$456,336.70
1992	$721,811.50	$288,731.40	$1,010,542.90	$362,264.60	$71,183.60	$433,448.20
1993	$656,254.10	$240,612.30	$896,866.40	$176,612.90	$70,870.30	$247,483.20
1994	$823,695.30	$240,482.20	$1,064,177.50	$197,706.90	$45,763.30	$243,470.20
1995	$803,174.70	$135,619.30	$938,794.00	$236,175.70	$97,548.90	$333,724.60
1996	$939,442.70	$109,878.40	$1,049,321.10	$241,005.40	$76,524.80	$317,530.20
1997	$1,185,115.70	$255,239.10	$1,440,354.80	$287,185.50	$229,767.40	$516,952.90
1998	$1,480,114.30	$452,463.00	$1,932,577.30	$426,068.60	$164,873.00	$590,941.60

Source: Construction Industry Research Board 1988-1999

San Bernardino

Year	Total Residential Incorporated	Total Residential Unincorporated	Total Residential	Total Non-Residential Incorporated	Total Non-Residential Unincorporated	Total Non-Residential Valuation
1987	$859,074.00	$743,443.00	$1,602,517.00	$578,170.00	$130,050.00	$708,220.00
1988	$953,710.00	$663,463.00	$1,617,173.00	$668,726.00	$109,639.00	$778,365.00
1989	$1,420,164.00	$588,457.00	$2,008,621.00	$667,711.00	$120,611.00	$788,322.00
1990	$1,111,284.90	$363,698.10	$1,474,983.00	$596,132.80	$99,105.40	$695,238.20
1991	$529,416.10	$274,585.10	$804,001.20	$501,265.30	$59,437.10	$560,702.40
1992	$669,732.80	$167,143.10	$836,875.90	$259,718.50	$30,731.90	$290,450.40
1993	$607,617.10	$103,304.70	$710,921.80	$256,604.80	$45,606.10	$302,210.90
1994	$562,930.50	$95,179.20	$658,109.70	$318,929.50	$49,082.60	$368,012.10
1995	$465,421.30	$108,431.10	$573,852.40	$375,221.20	$35,909.50	$411,130.70
1996	$626,519.80	$105,885.20	$732,405.00	$354,199.40	$43,428.40	$397,627.80
1997	$729,938.80	$112,560.80	$842,499.60	$478,541.20	$48,824.50	$527,365.70
1998	$866,588.90	$126,568.00	$993,156.90	$600,056.90	$42,851.70	$642,908.60

Source: Construction Industry Research Board 1988-1999

Ventura

Year	Total Residential Incorporated	Total Residential Unincorporated	Total Residential	Total Non-Residential Incorporated	Total Non-Residential Unincorporated	Total Non-Residential Valuation
1987	$427,466.00	$89,846.00	$517,312.00	$175,411.00	$17,763.00	$193,174.00
1988	$493,557.00	$174,832.00	$668,389.00	$239,354.00	$24,675.00	$264,029.00
1989	$468,876.00	$192,970.00	$661,846.00	$216,128.00	$30,025.00	$246,153.00
1990	$274,473.50	$96,495.10	$370,968.60	$211,006.00	$23,305.10	$234,311.10
1991	$250,586.10	$66,106.30	$316,692.40	$164,936.30	$13,974.40	$178,910.70
1992	$223,970.30	$85,103.20	$309,073.50	$145,562.10	$9,312.20	$154,874.30
1993	$229,727.90	$51,830.20	$281,558.10	$164,457.70	$14,680.60	$179,138.30
1994	$350,835.50	$57,385.10	$408,220.60	$142,199.30	$14,862.00	$157,061.30
1995	$396,491.20	$45,857.10	$442,348.30	$168,400.50	$18,622.70	$187,023.20
1996	$421,165.80	$54,885.60	$476,051.40	$173,049.60	$13,280.00	$186,329.60
1997	$445,522.00	$80,866.30	$526,388.30	$177,921.70	$22,571.90	$200,493.60
1998	$633,175.50	$88,553.90	$721,729.40	$274,843.90	$16,585.60	$291,429.50

Source: Construction Industry Research Board 1988-1999

Regional Average, Based on 1987-1998

Total Residential Incorporated	Total Residential Unincorporated	Total Residential	Total Non-Residential Incorporated	Total Non-Residential Unincorporated	Total Non-Residential Valuation
$1,042,760.99	$325,016.49	$1,367,777.48	$779,716.57	$95,161.13	$874,877.69

Source: Construction Industry Research Board 1988-1999

Central Coast Region

Monterey

Year	Total Residential Incorporated	Total Residential Unincorporated	Total Residential	Total Non-Residential Incorporated	Total Non-Residential Unincorporated	Total Non-Residential Valuation
1987	$91,781.00	$78,483.00	$170,264.00	$56,892.00	$22,896.00	$79,788.00
1988	$83,287.00	$97,968.00	$181,255.00	$46,363.00	$31,539.00	$77,902.00
1989	$141,154.00	$123,514.00	$264,668.00	$57,373.00	$24,031.00	$81,404.00
1990	$79,833.10	$106,279.40	$186,112.50	$63,703.20	$33,487.30	$97,190.50
1991	$84,190.10	$60,403.60	$144,593.70	$73,615.20	$50,119.20	$123,734.40
1992	$81,803.50	$57,342.90	$139,146.40	$64,954.40	$22,742.30	$87,696.70
1993	$98,212.60	$60,660.10	$158,872.70	$64,517.00	$33,767.70	$98,284.70
1994	$173,914.50	$63,220.80	$237,135.30	$51,932.60	$37,283.50	$89,216.10
1995	$143,497.80	$81,000.20	$224,498.00	$51,966.40	$45,358.30	$97,324.70
1996	$146,348.60	$120,204.20	$266,552.80	$73,748.60	$40,469.20	$114,217.80
1997	$185,249.80	$114,536.90	$299,786.70	$76,049.70	$30,292.30	$106,342.00
1998	$152,446.20	$126,376.30	$278,822.50	$83,485.50	$52,839.70	$136,325.20

Source: Construction Industry Research Board 1988-1999

San Luis Obispo

Year	Total Residential Incorporated	Total Residential Unincorporated	Total Residential	Total Non-Residential Incorporated	Total Non-Residential Unincorporated	Total Non-Residential Valuation
1987	$138,004.00	$108,530.00	$246,534.00	$39,351.00	$27,473.00	$66,824.00
1988	$148,762.00	$127,488.00	$276,250.00	$32,700.00	$29,833.00	$62,533.00
1989	$182,979.00	$131,067.00	$314,046.00	$31,153.00	$23,966.00	$55,119.00
1990	$98,809.90	$124,403.50	$223,213.40	$29,086.40	$17,105.30	$46,191.70
1991	$62,273.80	$95,993.60	$158,267.40	$22,205.50	$31,374.40	$53,579.90
1992	$53,066.90	$52,097.30	$105,164.20	$23,942.10	$19,916.70	$43,858.80
1993	$53,277.40	$70,356.80	$123,634.20	$28,368.70	$14,373.50	$42,742.20
1994	$74,546.70	$74,483.10	$149,029.80	$43,113.50	$13,889.60	$57,003.10
1995	$76,354.00	$65,070.50	$141,424.50	$19,645.30	$13,263.70	$32,909.00
1996	$85,947.00	$76,308.00	$162,255.00	$24,034.20	$16,019.90	$40,054.10
1997	$101,092.50	$93,216.40	$194,308.90	$35,208.30	$23,387.20	$58,595.50
1998	$158,955.10	$110,411.30	$269,366.40	$52,368.30	$22,323.10	$74,691.40

Source: Construction Industry Research Board 1988-1999

Santa Barbara

Year	Total Residential Incorporated	Total Residential Unincorporated	Total Residential	Total Non-Residential Incorporated	Total Non-Residential Unincorporated	Total Non-Residential Valuation
1987	$94,046.00	$137,215.00	$231,261.00	$41,112.00	$48,339.00	$89,451.00
1988	$87,705.00	$125,516.00	$213,221.00	$59,781.00	$40,495.00	$100,276.00
1989	$81,978.00	$153,948.00	$235,926.00	$72,239.00	$41,615.00	$113,854.00
1990	$95,311.30	$121,377.50	$216,688.80	$85,058.90	$69,984.20	$155,043.10
1991	$71,298.00	$123,925.40	$195,223.40	$56,417.90	$33,970.10	$90,388.00
1992	$78,925.50	$81,095.20	$160,020.70	$46,686.30	$21,297.70	$67,984.00
1993	$56,360.80	$68,847.80	$125,208.60	$41,884.70	$20,297.20	$62,181.90
1994	$60,430.10	$86,077.40	$146,507.50	$32,149.10	$25,298.10	$57,447.20
1995	$70,999.20	$92,202.20	$163,201.40	$31,664.50	$20,339.10	$52,003.60
1996	$65,133.90	$97,691.60	$162,825.50	$43,072.90	$30,034.00	$73,106.90
1997	$67,317.00	$106,035.60	$173,352.60	$52,547.50	$44,096.20	$96,643.70
1998	$72,590.30	$144,727.30	$217,317.60	$78,355.20	$51,546.80	$129,902.00

Source: Construction Industry Research Board 1988-1999

Santa Cruz

Year	Total Residential Incorporated	Total Residential Unincorporated	Total Residential	Total Non-Residential Incorporated	Total Non-Residential Unincorporated	Total Non-Residential Valuation
1987	$54,315.00	$106,560.00	$160,875.00	$47,336.00	$9,886.00	$57,222.00
1988	$50,684.00	$105,543.00	$156,227.00	$41,385.00	$15,353.00	$56,738.00
1989	$83,196.00	$68,815.00	$152,011.00	$58,424.00	$18,768.00	$77,192.00
1990	$40,777.10	$63,043.60	$103,820.70	$30,639.10	$13,875.10	$44,514.20
1991	$33,480.90	$57,973.30	$91,454.20	$84,201.00	$5,170.80	$89,371.80
1992	$29,427.80	$64,887.40	$94,315.20	$55,420.20	$16,334.70	$71,754.90
1993	$24,254.10	$48,580.80	$72,834.90	$32,445.20	$9,425.90	$41,871.10
1994	$43,710.40	$52,062.40	$95,772.80	$26,643.70	$8,096.40	$34,740.10
1995	$42,489.60	$55,162.60	$97,652.20	$28,575.00	$5,630.40	$34,205.40
1996	$51,256.20	$55,002.90	$106,259.10	$22,337.70	$14,608.00	$36,945.70
1997	$71,865.00	$69,920.20	$141,785.20	$37,601.20	$8,107.50	$45,708.70
1998	$51,817.20	$90,940.10	$142,757.30	$91,941.70	$17,147.80	$109,089.50

Source: Construction Industry Research Board 1988-1999

Regional Average, Based on 1987-1998

Total Residential Incorporated	Total Residential Unincorporated	Total Residential	Total Non-Residential Incorporated	Total Non-Residential Unincorporated	Total Non-Residential Valuation
$86,982.39	$91,595.11	$178,577.50	$48,826.99	$26,405.56	$75,232.55

Source: Construction Industry Research Board 1988-1999

Central Valley Region

Fresno

Year	Total Residential Incorporated	Total Residential Unincorporated	Total Residential	Total Non-Residential Incorporated	Total Non-Residential Unincorporated	Total Non-Residential Valuation
1987	$241,452.00	$36,245.00	$277,697.00	$91,254.00	$38,908.00	$130,162.00
1988	$257,383.00	$46,921.00	$304,304.00	$196,664.00	$51,384.00	$248,048.00
1989	$431,023.00	$55,899.00	$486,922.00	$145,516.00	$42,787.00	$188,303.00
1990	$377,277.90	$75,624.20	$452,902.10	$168,059.40	$73,330.10	$241,389.50
1991	$325,458.60	$65,135.10	$390,593.70	$157,964.80	$66,328.60	$224,293.40
1992	$404,550.50	$61,174.20	$465,724.70	$148,567.70	$23,153.80	$171,721.50
1993	$358,844.10	$56,230.40	$415,074.50	$126,325.80	$24,434.80	$150,760.60
1994	$366,416.60	$64,819.80	$431,236.40	$108,142.40	$36,940.50	$145,082.90
1995	$339,990.70	$69,072.00	$409,062.70	$145,764.30	$20,681.90	$166,446.20
1996	$308,806.90	$54,340.00	$363,146.90	$139,153.10	$40,051.40	$179,204.50
1997	$281,789.20	$46,243.00	$328,032.20	$171,368.10	$48,778.50	$220,146.60
1998	$324,324.10	$46,995.10	$371,319.20	$202,751.50	$40,094.10	$242,845.60

Source: Construction Industry Research Board 1988-1999

Kern

Year	Total Residential Incorporated	Total Residential Unincorporated	Total Residential	Total Non-Residential Incorporated	Total Non-Residential Unincorporated	Total Non-Residential Valuation
1987	$162,659.00	$133,309.00	$295,968.00	$108,599.00	$99,523.00	$208,122.00
1988	$163,638.00	$102,899.00	$266,537.00	$145,737.00	$77,311.00	$223,048.00
1989	$220,201.00	$166,269.00	$386,470.00	$95,175.00	$87,216.00	$182,391.00
1990	$254,275.80	$201,560.50	$455,836.30	$97,715.00	$97,878.70	$195,593.70
1991	$184,794.20	$141,766.50	$326,560.70	$92,427.20	$95,943.90	$188,371.10
1992	$260,292.60	$126,746.40	$387,039.00	$73,484.80	$81,256.30	$154,741.10
1993	$223,675.40	$109,786.40	$333,461.80	$129,383.10	$65,478.50	$194,861.60
1994	$204,567.40	$102,349.40	$306,916.80	$98,939.20	$52,941.30	$151,880.50
1995	$226,067.20	$107,797.30	$333,864.50	$53,358.00	$51,439.10	$104,797.10
1996	$201,061.20	$89,130.20	$290,191.40	$76,695.20	$60,584.10	$137,279.30
1997	$192,740.80	$82,002.00	$274,742.80	$66,135.20	$78,272.80	$144,408.00
1998	$267,378.20	$90,267.10	$357,645.30	$119,303.60	$83,598.90	$202,902.50

Source: Construction Industry Research Board 1988-1999

Kings

Year	Total Residential Incorporated	Total Residential Unincorporated	Total Residential	Total Non-Residential Incorporated	Total Non-Residential Unincorporated	Total Non-Residential Valuation
1987	$47,849.00	$8,442.00	$56,291.00	$8,846.00	$5,561.00	$14,407.00
1988	$20,905.00	$8,469.00	$29,374.00	$10,490.00	$6,804.00	$17,294.00
1989	$39,636.00	$10,069.00	$49,705.00	$6,331.00	$5,921.00	$12,252.00
1990	$47,194.30	$8,589.00	$55,783.30	$10,619.30	$3,790.60	$14,409.90
1991	$48,027.70	$7,546.90	$55,574.60	$23,979.70	$8,297.40	$32,277.10
1992	$55,206.60	$8,107.70	$63,314.30	$25,858.90	$8,735.30	$34,594.20
1993	$46,144.80	$10,923.00	$57,067.80	$10,368.50	$4,141.60	$14,510.10
1994	$62,114.10	$12,318.70	$74,432.80	$15,163.20	$12,456.80	$27,620.00
1995	$64,520.00	$7,138.60	$71,658.60	$8,966.60	$4,243.80	$13,210.40
1996	$62,541.30	$7,584.60	$70,125.90	$7,756.90	$8,487.50	$16,244.40
1997	$64,707.10	$9,220.60	$73,927.70	$16,752.00	$11,708.40	$28,460.40
1998	$67,952.40	$6,939.80	$74,892.20	$13,993.50	$6,324.40	$20,317.90

Source: Construction Industry Research Board 1988-1999

Merced

Year	Total Residential Incorporated	Total Residential Unincorporated	Total Residential	Total Non-Residential Incorporated	Total Non-Residential Unincorporated	Total Non-Residential Valuation
1987	$44,588.00	$32,675.00	$77,263.00	$17,663.00	$21,930.00	$39,593.00
1988	$66,554.00	$30,064.00	$96,618.00	$16,911.00	$30,643.00	$47,554.00
1989	$114,067.00	$33,497.00	$147,564.00	$24,723.00	$16,779.00	$41,502.00
1990	$71,284.30	$37,615.40	$108,899.70	$17,283.30	$14,971.40	$32,254.70
1991	$61,476.60	$33,588.10	$95,064.70	$15,832.30	$9,751.90	$25,584.20
1992	$87,247.40	$62,996.40	$150,243.80	$32,088.40	$10,032.70	$42,121.10
1993	$63,355.10	$50,284.30	$113,639.40	$34,363.60	$18,003.60	$52,367.20
1994	$63,750.80	$43,226.90	$106,977.70	$24,516.40	$20,550.50	$45,066.90
1995	$56,078.40	$30,347.20	$86,425.60	$10,744.90	$15,006.60	$25,751.50
1996	$55,358.90	$39,180.60	$94,539.50	$18,288.90	$17,585.40	$35,874.30
1997	$75,065.50	$34,079.70	$109,145.20	$21,622.00	$27,295.00	$48,917.00
1998	$84,792.70	$37,738.90	$122,531.60	$28,294.40	$29,622.80	$57,917.20

Source: Construction Industry Research Board 1988-1999

Sacramento

Year	Total Residential Incorporated	Total Residential Unincorporated	Total Residential	Total Non-Residential Incorporated	Total Non-Residential Unincorporated	Total Non-Residential Valuation
1987	$308,971.00	$504,072.00	$813,043.00	$173,024.00	$252,906.00	$425,930.00
1988	$336,959.00	$761,603.00	$1,098,562.00	$384,966.00	$254,069.00	$639,035.00
1989	$424,616.00	$987,107.00	$1,411,723.00	$242,679.00	$205,831.00	$448,510.00
1990	$470,372.00	$742,764.20	$1,213,136.20	$325,302.10	$173,187.30	$498,489.40
1991	$220,106.80	$366,782.70	$586,889.50	$212,580.40	$158,699.00	$371,279.40
1992	$268,123.00	$444,017.50	$712,140.50	$160,334.40	$150,584.50	$310,918.90
1993	$255,993.40	$405,075.20	$661,068.60	$155,353.00	$135,406.10	$290,759.10
1994	$232,145.90	$449,042.00	$681,187.90	$201,182.10	$136,500.60	$337,682.70
1995	$193,263.80	$371,885.70	$565,149.50	$141,199.70	$150,422.50	$291,622.20
1996	$223,291.00	$351,393.00	$574,684.00	$158,706.40	$156,479.70	$315,186.10
1997	$248,989.80	$387,857.80	$636,847.60	$254,070.30	$231,145.10	$485,215.40
1998	$383,734.70	$641,978.30	$1,025,713.00	$253,288.40	$313,242.90	$566,531.30

Source: Construction Industry Research Board 1988-1999

San Benito

Year	Total Residential Incorporated	Total Residential Unincorporated	Total Residential	Total Non-Residential Incorporated	Total Non-Residential Unincorporated	Total Non-Residential Valuation
1987	$15,120.00	$15,524.00	$30,644.00	$4,666.00	$1,606.00	$6,272.00
1988	$19,921.00	$30,192.00	$50,113.00	$2,726.00	$525.00	$3,251.00
1989	$25,207.00	$33,419.00	$58,626.00	$7,527.00	$3,951.00	$11,478.00
1990	$21,896.40	$10,161.70	$32,058.10	$6,830.30	$3,224.60	$10,054.90
1991	$12,715.60	$6,233.20	$18,948.80	$4,185.20	$1,962.50	$6,147.70
1992	$23,569.00	$12,126.50	$35,695.50	$4,312.30	$4,572.90	$8,885.20
1993	$29,645.70	$11,117.70	$40,763.40	$3,923.80	$864.70	$4,788.50
1994	$37,500.70	$12,245.00	$49,745.70	$10,783.10	$2,527.50	$13,310.60
1995	$33,093.30	$9,518.00	$42,611.30	$7,100.40	$1,924.50	$9,024.90
1996	$37,240.30	$9,025.60	$46,265.90	$6,050.50	$4,714.20	$10,764.70
1997	$53,670.00	$23,106.10	$76,776.10	$10,572.10	$2,391.20	$12,963.30
1998	$62,349.70	$35,268.80	$97,618.50	$11,081.50	$3,962.30	$15,043.80

Source: Construction Industry Research Board 1988-1999

San Joaquin

Year	Total Residential Incorporated	Total Residential Unincorporated	Total Residential	Total Non-Residential Incorporated	Total Non-Residential Unincorporated	Total Non-Residential Valuation
1987	$184,826.00	$52,598.00	$237,424.00	$138,339.00	$36,112.00	$174,451.00
1988	$262,903.00	$79,112.00	$342,015.00	$153,412.00	$36,877.00	$190,289.00
1989	$330,217.00	$104,589.00	$434,806.00	$106,033.00	$47,010.00	$153,043.00
1990	$270,500.40	$94,783.20	$365,283.60	$127,328.60	$94,230.90	$221,559.50
1991	$194,589.20	$45,568.40	$240,157.60	$138,392.10	$35,446.40	$173,838.50
1992	$254,782.10	$47,042.00	$301,824.10	$125,646.30	$29,346.00	$154,992.30
1993	$252,088.50	$38,457.90	$290,546.40	$137,905.50	$29,990.50	$167,896.00
1994	$226,369.70	$43,413.70	$269,783.40	$89,816.30	$27,094.10	$116,910.40
1995	$232,441.70	$37,659.50	$270,101.20	$100,113.10	$34,200.90	$134,314.00
1996	$247,509.40	$34,997.40	$282,506.80	$106,866.60	$27,258.00	$134,124.60
1997	$250,805.90	$32,932.50	$283,738.40	$169,534.10	$36,140.90	$205,675.00
1998	$400,341.90	$43,772.90	$444,114.80	$176,075.40	$42,750.90	$218,826.30

Source: Construction Industry Research Board 1988-1999

Stanislaus

Year	Total Residential Incorporated	Total Residential Unincorporated	Total Residential	Total Non-Residential Incorporated	Total Non-Residential Unincorporated	Total Non-Residential Valuation
1987	$213,013.00	$31,080.00	$244,093.00	$69,996.00	$41,081.00	$111,077.00
1988	$319,234.00	$35,708.00	$354,942.00	$70,707.00	$26,090.00	$96,797.00
1989	$434,893.00	$46,384.00	$481,277.00	$101,647.00	$18,299.00	$119,946.00
1990	$306,202.10	$25,863.90	$332,066.00	$103,521.10	$25,858.00	$129,379.10
1991	$115,152.70	$22,147.80	$137,300.50	$65,704.20	$36,616.60	$102,320.80
1992	$170,791.20	$38,307.00	$209,098.20	$70,142.70	$27,284.60	$97,427.30
1993	$136,524.00	$44,564.00	$181,088.00	$42,098.10	$23,149.70	$65,247.80
1994	$103,356.20	$42,793.80	$146,150.00	$54,885.50	$37,959.90	$92,845.40
1995	$92,953.60	$46,159.70	$139,113.30	$53,216.30	$41,014.50	$94,230.80
1996	$97,486.70	$53,695.20	$151,181.90	$77,921.90	$36,132.50	$114,054.40
1997	$120,262.60	$55,353.20	$175,615.80	$56,796.70	$45,907.30	$102,704.00
1998	$191,070.40	$65,309.20	$256,379.60	$91,754.60	$66,621.90	$158,376.50

Source: Construction Industry Research Board 1988-1999

Regional Average, Based on 1987-1998

Total Residential Incorporated	Total Residential Unincorporated	Total Residential	Total Non-Residential Incorporated	Total Non-Residential Unincorporated	Total Non-Residential Valuation
$181,207.23	$109,239.92	$290,447.15	$89,064.97	$52,188.88	$141,253.85

Source: Construction Industry Research Board 1988-1999

ABAG Region

Alameda

Year	Total Residential Incorporated	Total Residential Unincorporated	Total Residential	Total Non-Residential Incorporated	Total Non-Residential Unincorporated	Total Non-Residential Valuation
1987	$796,558.00	$72,839.00	$869,397.00	$533,893.00	$13,012.00	$546,905.00
1988	$636,064.00	$78,916.00	$714,980.00	$470,078.00	$22,736.00	$492,814.00
1989	$672,364.00	$78,202.00	$750,566.00	$525,480.00	$15,268.00	$540,748.00
1990	$484,652.60	$49,628.90	$534,281.50	$681,896.70	$11,495.50	$693,392.20
1991	$439,634.00	$40,710.70	$480,344.70	$470,917.90	$6,410.90	$477,328.80
1992	$614,374.80	$54,529.60	$668,904.40	$437,291.90	$4,998.80	$442,290.70
1993	$536,051.20	$42,772.40	$578,823.60	$345,475.40	$8,481.80	$353,957.20
1994	$603,701.40	$43,286.50	$646,987.90	$379,393.40	$4,018.60	$383,412.00
1995	$601,934.30	$65,651.50	$667,585.80	$498,878.70	$5,730.10	$504,608.80
1996	$781,721.20	$112,016.20	$893,737.40	$647,736.20	$12,531.70	$660,267.90
1997	$1,140,607.70	$107,643.80	$1,248,251.50	$879,648.10	$9,170.20	$888,818.30
1998	$1,141,252.80	$121,238.40	$1,262,491.20	$1,134,463.20	$8,316.30	$1,142,779.50

Source: Construction Industry Research Board 1988-1999

Contra Costa

Year	Total Residential Incorporated	Total Residential Unincorporated	Total Residential	Total Non-Residential Incorporated	Total Non-Residential Unincorporated	Total Non-Residential Valuation
1987	$395,642.00	$276,257.00	$671,899.00	$197,131.00	$102,094.00	$299,225.00
1988	$549,867.00	$239,245.00	$789,112.00	$148,203.00	$65,133.00	$213,336.00
1989	$568,710.00	$299,480.00	$868,190.00	$176,822.00	$87,186.00	$264,008.00
1990	$390,935.70	$169,977.20	$560,912.90	$199,835.00	$52,607.80	$252,442.80
1991	$318,057.00	$169,968.60	$488,025.60	$183,835.70	$25,079.30	$208,915.00
1992	$414,368.10	$235,217.90	$649,586.00	$214,237.70	$31,469.30	$245,707.00
1993	$375,422.20	$211,341.80	$586,764.00	$142,480.80	$62,990.30	$205,471.10
1994	$458,773.60	$238,272.30	$697,045.90	$141,846.60	$42,264.30	$184,110.90
1995	$440,073.50	$187,014.60	$627,088.10	$152,653.40	$38,700.40	$191,353.80
1996	$429,582.50	$256,357.50	$685,940.00	$247,741.60	$85,515.90	$333,257.50
1997	$492,385.50	$257,723.80	$750,109.30	$167,897.50	$159,354.30	$327,251.80
1998	$545,435.70	$335,892.70	$881,328.40	$174,624.00	$67,256.60	$241,880.60

Source: Construction Industry Research Board 1988-1999

Marin

Year	Total Residential Incorporated	Total Residential Unincorporated	Total Residential	Total Non-Residential Incorporated	Total Non-Residential Unincorporated	Total Non-Residential Valuation
1987	$150,213.00	$33,143.00	$183,356.00	$37,928.00	$3,939.00	$41,867.00
1988	$170,226.00	$34,172.00	$204,398.00	$43,178.00	$3,636.00	$46,814.00
1989	$187,860.00	$35,295.00	$223,155.00	$69,939.00	$7,086.00	$77,025.00
1990	$146,217.40	$26,329.30	$172,546.70	$38,720.10	$4,119.40	$42,839.50
1991	$109,991.30	$38,659.80	$148,651.10	$69,333.90	$5,351.00	$74,684.90
1992	$97,779.50	$45,515.20	$143,294.70	$85,829.50	$5,354.60	$91,184.10
1993	$95,223.10	$32,910.50	$128,133.60	$52,436.80	$4,701.40	$57,138.20
1994	$102,487.10	$44,976.60	$147,463.70	$45,743.90	$7,089.50	$52,833.40
1995	$121,525.10	$46,956.70	$168,481.80	$43,799.20	$11,679.40	$55,478.60
1996	$102,816.10	$71,106.60	$173,922.70	$96,882.00	$9,150.40	$106,032.40
1997	$124,751.90	$59,175.00	$183,926.90	$46,823.00	$8,265.00	$55,088.00
1998	$170,842.70	$67,154.40	$237,997.10	$69,950.20	$7,556.20	$77,506.40

Source: Construction Industry Research Board 1988-1999

San Francisco

Year	Total Residential Incorporated	Total Residential Unincorporated	Total Residential	Total Non-Residential Incorporated	Total Non-Residential Unincorporated	Total Non-Residential Valuation
1987	$344,206.00	N/A	$344,206.00	$356,541.00	N/A	$356,541.00
1988	$291,396.00	N/A	$291,396.00	$578,848.00	N/A	$578,848.00
1989	$314,020.00	N/A	$314,020.00	$381,061.00	N/A	$381,061.00
1990	$316,410.00	N/A	$316,410.10	$474,077.20	N/A	$474,077.20
1991	$281,462.70	N/A	$281,462.70	$358,840.50	N/A	$358,840.50
1992	$205,342.20	N/A	$205,342.20	$409,318.10	N/A	$409,318.10
1993	$253,657.30	N/A	$253,657.30	$309,147.90	N/A	$309,147.90
1994	$229,886.90	N/A	$229,886.90	$312,900.50	N/A	$312,900.50
1995	$186,351.40	N/A	$186,351.40	$273,178.20	N/A	$273,178.20
1996	$239,450.40	N/A	$239,450.40	$382,148.70	N/A	$382,148.70
1997	$342,930.50	N/A	$342,930.50	$462,381.80	N/A	$462,381.80
1998	$426,875.50	N/A	$426,875.50	$528,968.70	N/A	$528,968.70

Source: Construction Industry Research Board 1988-1999

San Mateo

Year	Total Residential Incorporated	Total Residential Unincorporated	Total Residential	Total Non-Residential Incorporated	Total Non-Residential Unincorporated	Total Non-Residential Valuation
1987	$328,220.00	$54,284.00	$382,504.00	$307,736.00	$5,731.00	$313,467.00
1988	$392,352.00	$58,017.00	$450,369.00	$233,180.00	$7,769.00	$240,949.00
1989	$430,252.00	$51,080.00	$481,332.00	$227,273.00	$10,702.00	$237,975.00
1990	$262,752.20	$46,423.30	$309,175.50	$205,689.80	$9,922.90	$215,612.70
1991	$249,453.20	$40,112.80	$289,566.00	$178,978.00	$3,876.20	$182,854.20
1992	$222,163.90	$29,304.50	$251,468.40	$151,418.20	$5,345.10	$156,763.30
1993	$192,922.70	$36,905.20	$229,827.90	$161,837.20	$4,935.90	$166,773.10
1994	$246,212.30	$37,245.30	$283,457.60	$289,513.60	$2,448.30	$291,961.90
1995	$297,566.40	$33,305.60	$330,872.00	$203,845.40	$7,728.70	$211,574.10
1996	$268,184.10	$34,070.00	$302,254.10	$216,431.60	$6,783.30	$223,214.90
1997	$365,800.10	$58,663.90	$424,464.00	$459,095.90	$11,174.50	$470,270.40
1998	$468,549.70	$77,153.40	$545,703.10	$401,297.00	$20,544.50	$421,841.50

Source: Construction Industry Research Board 1988-1999

Santa Clara

Year	Total Residential Incorporated	Total Residential Unincorporated	Total Residential	Total Non-Residential Incorporated	Total Non-Residential Unincorporated	Total Non-Residential Valuation
1987	$650,149.00	$68,773.00	$718,922.00	$721,856.00	$49,910.00	$771,766.00
1988	$688,522.00	$62,067.00	$750,589.00	$668,267.00	$44,665.00	$712,932.00
1989	$616,027.00	$73,524.00	$689,551.00	$716,934.00	$39,813.00	$756,747.00
1990	$623,682.90	$62,833.40	$686,516.30	$735,798.80	$25,181.30	$760,980.10
1991	$536,551.50	$56,157.10	$592,708.60	$591,649.80	$39,703.60	$631,353.40
1992	$494,259.40	$48,591.30	$542,850.70	$586,253.30	$56,047.40	$642,300.70
1993	$541,848.30	$37,184.30	$579,032.60	$606,509.70	$29,329.00	$635,838.70
1994	$600,492.20	$37,414.20	$637,906.40	$652,543.70	$29,217.00	$681,760.70
1995	$626,984.90	$38,265.90	$665,250.80	$809,449.80	$67,135.90	$876,585.70
1996	$1,032,998.50	$65,869.30	$1,098,867.80	$1,232,956.30	$60,228.70	$1,293,185.00
1997	$1,245,937.90	$83,709.30	$1,329,647.20	$1,758,552.30	$156,157.90	$1,914,710.20
1998	$1,170,576.10	$123,979.00	$1,294,555.10	$1,812,363.60	$69,598.10	$1,881,961.70

Source: Construction Industry Research Board 1988-1999

Solano

Year	Total Residential Incorporated	Total Residential Unincorporated	Total Residential	Total Non-Residential Incorporated	Total Non-Residential Unincorporated	Total Non-Residential Valuation
1987	$309,592.00	$16,021.00	$325,613.00	$74,586.00	$2,126.00	$76,712.00
1988	$528,440.00	$20,289.00	$548,729.00	$94,690.00	$3,418.00	$98,108.00
1989	$682,384.00	$18,986.00	$701,370.00	$125,120.00	$3,829.00	$128,949.00
1990	$270,141.20	$19,713.40	$289,854.60	$99,253.40	$3,508.30	$102,761.70
1991	$217,027.70	$11,408.80	$228,436.50	$103,025.00	$4,658.30	$107,683.30
1992	$235,736.80	$13,095.70	$248,832.50	$106,064.50	$6,349.60	$112,414.10
1993	$196,038.50	$11,056.80	$207,095.30	$53,461.60	$3,231.90	$56,693.50
1994	$205,404.90	$10,745.10	$216,150.00	$53,786.60	$12,855.50	$66,642.10
1995	$152,588.40	$9,806.40	$162,394.80	$86,377.30	$6,086.30	$92,463.60
1996	$222,916.80	$5,606.00	$228,522.80	$81,612.30	$3,284.30	$84,896.60
1997	$244,990.20	$4,944.10	$249,934.30	$126,113.80	$2,529.80	$128,643.60
1998	$324,018.10	$7,481.10	$331,499.20	$127,367.90	$3,404.30	$130,772.20

Source: Construction Industry Research Board 1988-1999

Regional Average, Based on 1987-1998

Total Residential Incorporated	Total Residential Unincorporated	Total Residential	Total Non-Residential Incorporated	Total Non-Residential Unincorporated	Total Non-Residential Valuation
$416,450.33	$79,773.11	$484,827.28	$354,063.39	$25,541.37	$375,955.99

Source: Construction Industry Research Board 1988-1999

Housing Units in 1990, Owner- and Renter-Occupied, and Vacant Units

SANDAG Region

County	Occupied housing units: Owner-occupied	Occupied housing units: Renter-occupied	Occupied housing units: Total occupied housing units	Vacant housing units	Total # housing units
San Diego	477,579	409,824	887,403	58,837	946,240
% of total	50.5	43.3	93.8	6.2	100.0
% of total occupied	53.8	46.2	100.0		
Regional Total	477,579	409,824	887,403	58,837	946,240
% of total	50.5	43.3	93.8	6.2	100.0
% of total occupied	53.8	46.2	100.0		

Source: United States Census Bureau 1990a

SCAG Region

County	Occupied housing units: Owner-occupied	Occupied housing units: Renter-occupied	Occupied housing units: Total occupied housing units	Vacant housing units	Total # housing units
Imperial	18,907	13,935	32,842	3,717	36,559
% of total	51.7	38.1	89.8	10.2	100.0
% of total occupied	57.6	42.4	100.0		
Los Angeles	1,440,830	1,548,722	2,989,552	173,791	3,163,343
% of total	45.5	49.0	94.5	5.5	100.0
% of total occupied	48.2	51.8	100.0		
Orange	496,782	330,284	827,066	48,006	875,072
% of total	56.8	37.7	94.5	5.5	100.0
% of total occupied	60.1	39.9	100.0		
Riverside	270,876	131,191	402,067	81,780	483,847
% of total	56.0	27.1	83.1	16.9	100.0
% of total occupied	67.4	32.6	100.0		
San Bernardino	294,248	170,489	464,737	77,595	542,332
% of total	54.3	31.4	85.7	14.3	100.0
% of total occupied	63.3	36.7	100.0		
Ventura	142,262	75,036	217,298	11,180	228,478
% of total	62.3	32.8	95.1	4.9	100.0
% of total occupied	65.5	34.5	100.0		
Regional Total	2,663,905	2,269,657	4,933,562	396,069	5,329,631
% of total	50.0	42.6	92.6	7.4	100.0
% of total occupied	54.0	46.0	100.0		

Source: United States Census Bureau 1990a

Central Coast Region

County	Occupied housing units: Owner-occupied	Occupied housing units: Renter-occupied	Occupied housing units: Total occupied housing units	Vacant housing units	Total # housing units
Monterey	57,202	55,763	112,965	8,259	121,224
% of total	47.2	46.0	93.2	6.8	100.0
% of total occupied	50.6	49.4	100.0		
San Luis Obispo	48,035	32,246	80,281	9,919	90,200
% of total	53.3	35.7	89.0	11.0	100.0
% of total occupied	59.8	40.2	100.0		
Santa Barbara	71,053	58,749	129,802	8,347	138,149
% of total	51.4	42.5	94.0	6.0	100.0
% of total occupied	54.7	45.3	100.0		
Santa Cruz	50,052	33,514	83,566	8,312	91,878
% of total	54.5	36.5	91.0	9.0	100.0
% of total occupied	59.9	40.1	100.0		
Regional Total	226,342	180,272	406,614	34,837	441,451
% of total	51.3	40.8	92.1	7.9	100.0
% of total occupied	55.7	44.3	100.0		

Source: United States Census Bureau 1990a

Central Valley Region

County	Occupied housing units: Owner-occupied	Occupied housing units: Renter-occupied	Occupied housing units: Total occupied housing units	Vacant housing units	Total # housing units
Fresno	119,876	101,057	220,933	14,630	235,563
% of total	50.9	42.9	93.8	6.2	100.0
% of total occupied	54.3	45.7	100.0		
Kern	107,652	73,828	181,480	17,156	198,636
% of total	54.2	37.2	91.4	8.6	100.0
% of total occupied	59.3	40.7	100.0		
Kings	15,381	13,701	29,082	1,761	30,843
% of total	49.9	44.4	94.3	5.7	100.0
% of total occupied	52.9	47.1	100.0		
Merced	30,082	25,249	55,331	3,079	58,410
% of total	51.5	43.2	94.7	5.3	100.0
% of total occupied	54.4	45.6	100.0		
Sacramento	223,360	171,170	394,530	23,044	417,574
% of total	53.5	41.0	94.5	5.5	100.0
% of total occupied	56.6	43.4	100.0		
San Benito	6,984	4,438	11,422	808	12,230
% of total	57.1	36.3	93.4	6.6	100.0
% of total occupied	61.1	38.9	100.0		

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San Joaquin	91,068	67,088	158,156	8,118	166,274
% of total	54.8	40.3	95.1	4.9	100.0
% of total occupied	57.6	42.4	100.0		
Stanislaus	76,129	49,246	125,375	6,652	132,027
% of total	57.7	37.3	95.0	5.0	100.0
% of total occupied	60.7	39.3	100.0		
Regional Total	670,532	505,777	1,176,309	75,248	1,251,557
% of total	53.6	40.4	94.0	6.0	100.0
% of total occupied	57.0	43.0	100.0		

Source: United States Census Bureau 1990a

ABAG Region

County	Occupied housing units: Owner-occupied	Occupied housing units: Renter-occupied	Occupied housing units: Total occupied housing units	Vacant housing units	Total # housing units
Alameda	255,386	224,132	479,518	24,591	504,109
% of total	50.7	44.5	95.1	4.9	100.0
% of total occupied	53.3	46.7	100.0		
Contra Costa	202,894	97,394	300,288	15,882	316,170
% of total	64.2	30.8	95.0	5.0	100.0
% of total occupied	67.6	32.4	100.0		
Marin	58,991	36,015	95,006	4,751	99,757
% of total	59.1	36.1	95.2	4.8	100.0
% of total occupied	62.1	37.9	100.0		
San Francisco	105,497	200,087	305,584	22,887	328,471
% of total	32.1	60.9	93.0	7.0	100.0
% of total occupied	34.5	65.5	100.0		
San Mateo	145,552	96,362	241,914	9,868	251,782
% of total	57.8	38.3	96.1	3.9	100.0
% of total occupied	60.2	39.8	100.0		
Santa Clara	307,354	212,826	520,180	20,060	540,240
% of total	56.9	39.4	96.3	3.7	100.0
% of total occupied	59.1	40.9	100.0		
Solano	71,309	42,120	113,429	6,104	119,533
% of total	59.7	35.2	94.9	5.1	100.0
% of total occupied	62.9	37.1	100.0		
Regional Total	1,146,983	908,936	2,055,919	104,143	2,160,062
% of total	53.1	42.1	95.2	4.8	100.0
% of total occupied	55.8	44.2	100.0		

Source: United States Census Bureau 1990a

Median Value and Median Rent in the 26 Counties

County	Planning Region	Median Value of Owner-Occupied Housing[1]	Median Rent[1]
San Diego	SANDAG	$186,700.00	$611.00
Regional Average	**SANDAG**	**$186,700.00**	**$611.00**
Imperial	SCAG	$72,500.00	$394.00
Los Angeles	SCAG	$226,400.00	$626.00
Orange	SCAG	$252,700.00	$790.00
Riverside	SCAG	$139,100.00	$572.00
San Bernardino	SCAG	$129,200.00	$556.00
Ventura	SCAG	$245,300.00	$754.00
Regional Average	**SCAG**	**$177,533.00**	**$615.00**
Monterey	Central Coast	$198,200.00	$625.00
San Luis Obispo	Central Coast	$215,300.00	$573.00
Santa Barbara	Central Coast	$250,000.00	$654.00
Santa Clara	Central Coast	$256,100.00	$713.00
Regional Average	**Central Coast**	**$229,900.00**	**$641.00**
Fresno	Central Valley	$83,600.00	$434.00
Kern	Central Valley	$82,800.00	$440.00
Kings	Central Valley	$70,700.00	$411.00
Merced	Central Valley	$90,800.00	$430.00
Sacramento	Central Valley	$129,800.00	$527.00
San Benito	Central Valley	$206,600.00	$547.00
San Joaquin	Central Valley	$121,700.00	$489.00
Stanislaus	Central Valley	$124,300.00	$482.00
Regional Average	**Central Valley**	**$113,788.00**	**$470.00**
Alameda	ABAG	$227,200.00	$626.00
Contra Costa	ABAG	$219,400.00	$675.00
Marin	ABAG	$354,200.00	$824.00
San Francisco	ABAG	$298,900.00	$653.00
San Mateo	ABAG	$343,900.00	$769.00
Santa Clara	ABAG	$289,400.00	$773.00
Solano	ABAG	$147,300.00	$590.00
Regional Average	**ABAG**	**$268,614.00**	**$701.00**

Source: United States Census Bureau 1990a

[1]Figures are rounded to nearest whole dollar.

Number of Workers 16 and Older and Percent Working Outside of County

County	Planning Region	Number of Workers 16 and older	Percent Working Outside of County
San Diego	SANDAG	1,230,446	3.4
Imperial	SCAG	35,905	6.2
Los Angeles	SCAG	4,115,248	5.9
Orange	SCAG	1,278,661	18.4
Riverside	SCAG	482,618	29.5
San Bernardino	SCAG	597,330	32.0
Ventura	SCAG	335,186	25.3
Monterey	Central Coast	164,270	7.8
San Luis Obispo	Central Coast	95,688	9.0
Santa Barbara	Central Coast	179,258	5.7
Santa Cruz	Central Coast	115,199	22.2
Fresno	Central Valley	265,397	5.5
Kern	Central Valley	213,525	5.8
Kings	Central Valley	36,943	15.4
Merced	Central Valley	68,697	15.1
Sacramento	Central Valley	482,321	11.9
San Benito	Central Valley	16,530	34.8
San Joaquin	Central Valley	191,111	16.6
Stanislaus	Central Valley	147,406	16.6
Alameda	ABAG	633,191	29.5
Contra Costa	ABAG	401,173	40.2
Marin	ABAG	125,080	41.4
San Francisco	ABAG	382,309	19.6
San Mateo	ABAG	346,559	41.9
Santa Clara	ABAG	796,605	10.8
Solano	ABAG	158,713	38.6

Source: United States Census Bureau 1990b

Average Number of Vehicles Per Household

County	Planning Region	Number of Vehicles/Household	Regional Average
San Diego	SANDAG	1.8	**1.8**
Imperial	SCAG	1.7	
Los Angeles	SCAG	1.7	
Orange	SCAG	1.9	
Riverside	SCAG	1.8	
San Bernardino	SCAG	1.9	
Ventura	SCAG	2.0	**1.8**
Monterey	Central Coast	1.8	
San Luis Obispo	Central Coast	1.9	
Santa Barbara	Central Coast	1.9	
Santa Cruz	Central Coast	1.9	**1.9**
Fresno	Central Valley	1.7	
Kern	Central Valley	1.7	
Kings	Central Valley	1.7	
Merced	Central Valley	1.8	
Sacramento	Central Valley	1.7	
San Benito	Central Valley	2.1	
San Joaquin	Central Valley	1.7	
Stanislaus	Central Valley	1.8	**1.8**
Alameda	ABAG	1.7	
Contra Costa	ABAG	1.9	
Marin	ABAG	1.8	
San Francisco	ABAG	1.1	
San Mateo	ABAG	1.9	
Santa Clara	ABAG	2.0	
Solano	ABAG	1.9	**1.8**

Source: United States Census Bureau 1990b

Commuting Methods (to Work) by County and Region, Workers 16 and Older

SANDAG Region

County	% Working at Home	% Driving Alone to Work	% In Carpools	% Using Public Transportation	% Other
San Diego	5.0	70.9	13.8	3.3	7.0
Regional Average	5.0	70.9	13.8	3.3	7.0

Source: United States Census Bureau 1990b

SCAG Region

County	% Working at Home	% Driving Alone to Work	% In Carpools	% Using Public Transportation	% Other
Imperial	2.8	74.4	14.9	0.8	7.1
Los Angeles	2.7	70.1	15.5	6.5	5.2
Orange	2.7	76.8	13.7	2.5	4.3
Riverside	3.0	73.8	17.7	0.9	4.6
San Bernardino	2.4	75.2	16.9	0.7	4.8
Ventura	3.0	76.0	15.6	0.7	4.7
Regional Average	2.8	74.4	15.7	2.0	5.1

Source: United States Census Bureau 1990b

Central Coast Region

County	% Working at Home	% Driving Alone to Work	% In Carpools	% Using Public Transportation	% Other
Monterey	3.3	67.5	17.2	2.1	9.9
San Luis Obispo	4.3	74.0	13.9	0.7	7.1
Santa Barbara	3.7	70.4	14.7	1.9	9.3
Santa Cruz	4.8	70.4	14.5	3.3	7.0
Regional Average	4.0	70.6	15.1	2.0	8.3

Source: United States Census Bureau 1990b

Central Valley Region

County	% Working at Home	% Driving Alone to Work	% In Carpools	% Using Public Transportation	% Other
Fresno	3.0	75.2	14.9	1.5	5.4
Kern	2.1	74.7	17.3	1.0	4.9
Kings	2.7	70.5	18.6	1.5	6.7
Merced	3.5	72.8	15.6	0.3	7.8
Sacramento	2.8	75.8	14.0	2.8	4.6
San Benito	3.3	73.5	17.5	0.4	5.3
San Joaquin	3.1	74.6	16.2	1.2	4.9
Stanislaus	3.5	76.7	14.2	0.6	5.0
Regional Average	3.0	74.2	16.0	1.2	5.6

Source: United States Census Bureau 1990b

ABAG Region

County	% Working at Home	% Driving Alone to Work	% In Carpools	% Using Public Transportation	% Other
Alameda	3.9	66.8	12.8	10.0	6.5
Contra Costa	3.4	71.5	13.8	7.8	3.5
Marin	6.5	66.1	12.4	10.3	4.7
San Francisco	3.8	38.5	11.5	33.5	12.7
San Mateo	2.8	72.5	13.0	7.4	4.3
Santa Clara	2.5	77.7	12.3	3.0	4.5
Solano	2.6	72.0	18.5	2.3	4.6
Regional Average	3.6	66.4	13.5	10.6	5.8

Source: United States Census Bureau 1990b

Average Commute Time to Work

County	Planning Region	Average Travel Time to Work (Minutes)
San Diego	SANDAG	22.2
Regional Average	**SANDAG**	**22.2**
Imperial	SCAG	16.5
Los Angeles	SCAG	26.5
Orange	SCAG	25.5
Riverside	SCAG	28.2
San Bernardino	SCAG	27.4
Ventura	SCAG	24.7
Regional Average	**SCAG**	**24.8**
Monterey	Central Coast	18.0
San Luis Obispo	Central Coast	18.3
Santa Barbara	Central Coast	17.6
Santa Cruz	Central Coast	24.3
Regional Average	**Central Coast**	**19.6**
Fresno	Central Valley	19.1
Kern	Central Valley	19.6
Kings	Central Valley	17.5
Merced	Central Valley	16.9
Sacramento	Central Valley	21.7
San Benito	Central Valley	23.3
San Joaquin	Central Valley	21.9
Stanislaus	Central Valley	22.5
Regional Average	**Central Valley**	**20.3**
Alameda	ABAG	25.8
Contra Costa	ABAG	29.3
Marin	ABAG	28.4
San Francisco	ABAG	26.9
San Mateo	ABAG	24.0
Santa Clara	ABAG	23.3
Solano	ABAG	28.2
Regional Average	**ABAG**	**26.6**

Source: United States Census Bureau 1990b

Enrollment and Number of Schools in the 26 Counties — Elementary Schools

County	Planning Region	Total Enrollment	# of Schools	Average Enrollment/School
San Diego	SANDAG	249,345	386	646
	SANDAG	**249,345**	**386**	**646**
Imperial	SCAG	18,157	32	567
Los Angeles	SCAG	857,493	1,160	739
Orange	SCAG	256,017	371	690
Riverside	SCAG	154,085	207	744
San Bernardino	SCAG	191,543	284	674
Ventura	SCAG	70,258	125	562
	SCAG	**1,547,553**	**2,179**	**710**
Monterey	Central Coast	37,347	70	534
San Luis Obispo	Central Coast	18,334	43	426
Santa Barbara	Central Coast	36,164	70	517
Santa Cruz	Central Coast	20,441	39	524
	Central Coast	**112,286**	**222**	**506**
Fresno	Central Valley	99,531	167	596
Kern	Central Valley	74,835	139	538
Kings	Central Valley	13,782	27	510
Merced	Central Valley	26,121	48	544
Sacramento	Central Valley	116 ,742	213	548
San Benito	Central Valley	6,039	16	377
San Joaquin	Central Valley	66,715	112	596
Stanislaus	Central Valley	50,646	90	563
	Central Valley	**454,411**	**812**	**560**
Alameda	ABAG	110,820	210	528
Contra Costa	ABAG	75,267	134	562
Marin	ABAG	14,318	44	325
San Francisco	ABAG	30,086	78	386
San Mateo	ABAG	48,446	112	433
Santa Clara	ABAG	131,310	241	545
Solano	ABAG	36,225	59	614
	ABAG	**446,472**	**878**	**509**

Source: California Department of Education 1998a

Enrollment and Number of Schools in the 26 Counties – Middle/Junior High Schools

County	Planning Region	Total Enrollment	# of Schools	Average Enrollment/School
San Diego	SANDAG	85,367	80	1,067
	SANDAG	**85,367**	**80**	**1,067**
Imperial	SCAG	5,091	8	636
Los Angeles	SCAG	299,215	237	1,263
Orange	SCAG	75,055	76	988
Riverside	SCAG	55,647	54	1,031
San Bernardino	SCAG	67,786	71	955
Ventura	SCAG	24,216	27	897
	SCAG	**527,010**	**473**	**1,114**
Monterey	Central Coast	13,089	18	727
San Luis Obispo	Central Coast	6,467	11	588
Santa Barbara	Central Coast	10,118	13	778
Santa Cruz	Central Coast	7,586	12	632
	Central Coast	**37,260**	**54**	**690**
Fresno	Central Valley	26,115	37	706
Kern	Central Valley	26,273	39	674
Kings	Central Valley	3,976	7	568
Merced	Central Valley	8,716	13	670
Sacramento	Central Valley	31,704	37	857
San Benito	Central Valley	1,757	2	879
San Joaquin	Central Valley	12,676	15	845
Stanislaus	Central Valley	14,890	18	827
	Central Valley	**126,107**	**168**	**751**
Alameda	ABAG	43,137	53	814
Contra Costa	ABAG	32,922	35	941
Marin	ABAG	5,867	10	587
San Francisco	ABAG	12,152	17	715
San Mateo	ABAG	17,340	28	619
Santa Clara	ABAG	49,618	57	870
Solano	ABAG	12,974	14	927
	ABAG	**174,010**	**214**	**813**

Source: California Department of Education 1998a

Enrollment and Number of Schools in the 26 Counties – Senior High Schools

County	Planning Region	Total Enrollment	# of Schools	Average Enrollment/School
San Diego	SANDAG	121,758	63	1,933
	SANDAG	**121,758**	**63**	**1,933**
Imperial	SCAG	8,319	8	1,040
Los Angeles	SCAG	398,325	167	2,385
Orange	SCAG	123,818	59	2,099
Riverside	SCAG	73,878	36	2,052
San Bernardino	SCAG	88,888	39	2,279
Ventura	SCAG	35,953	18	1,997
	SCAG	**729,181**	**327**	**2,230**
Monterey	Central Coast	16,554	11	1,505
San Luis Obispo	Central Coast	10,447	9	1,161
Santa Barbara	Central Coast	16,526	10	1,653
Santa Cruz	Central Coast	10,540	7	1,506
	Central Coast	**54,067**	**37**	**1,461**
Fresno	Central Valley	44,755	28	1,598
Kern	Central Valley	37,559	25	1,502
Kings	Central Valley	6,169	5	1,234
Merced	Central Valley	13,042	10	1,304
Sacramento	Central Valley	52,877	30	1,763
San Benito	Central Valley	2,739	2	1,370
San Joaquin	Central Valley	28,690	15	1,913
Stanislaus	Central Valley	23,850	13	1,835
	Central Valley	**209,681**	**128**	**1,638**
Alameda	ABAG	55,635	31	1,795
Contra Costa	ABAG	39,852	26	1,533
Marin	ABAG	7,494	8	937
San Francisco	ABAG	17,734	17	1,043
San Mateo	ABAG	25,080	18	1,393
Santa Clara	ABAG	66,320	36	1,842
Solano	ABAG	19,311	10	1,931
	ABAG	**231,426**	**146**	**1,585**

Source: California Department of Education 1998a

Number of Students and Percent of Area's Students Served by County and Region

County	Planning Region	Total # Students	% of Area's Students Served
San Diego	SANDAG	456,470	8.9
	SANDAG	**456,470**	**8.9**
Imperial	SCAG	31,567	0.6
Los Angeles	SCAG	1,555,033	30.5
Orange	SCAG	454,890	8.9
Riverside	SCAG	283,610	5.6
San Bernardino	SCAG	348,217	6.8
Ventura	SCAG	130,427	2.6
	SCAG	**2,803,744**	**55.0**
Monterey	Central Coast	66,990	1.3
San Luis Obispo	Central Coast	35,248	0.7
Santa Barbara	Central Coast	62,808	1.2
Santa Cruz	Central Coast	38,567	0.8
	Central Coast	**203,613**	**4.0**
Fresno	Central Valley	170,401	3.3
Kern	Central Valley	138,667	2.7
Kings	Central Valley	23,927	0.5
Merced	Central Valley	47,879	0.9
Sacramento	Central Valley	201,323	3.9
San Benito	Central Valley	10,535	0.2
San Joaquin	Central Valley	108,081	2.1
Stanislaus	Central Valley	89,386	1.8
	Central Valley	**790,199**	**15.4**
Alameda	ABAG	209,592	4.1
Contra Costa	ABAG	148,041	2.9
Marin	ABAG	27,679	0.5
San Francisco	ABAG	59,972	1.2
San Mateo	ABAG	90,866	1.8
Santa Clara	ABAG	247,248	4.8
Solano	ABAG	68,510	1.3
	ABAG	**851,908**	**16.6**

Source: California Department of Education 1998a

Academic Achievement by County, Measured by the Stanford 9 (Percentages are Rounded to the Nearest Tenth)

County	Planning Region	Stanford 9 Average	% Well Above Average	% Above Average	% Average	% Below Average	% Well Below Average	Number of Participating Schools
San Diego	SANDAG	7.28	42.8	25.2	14.8	11.0	6.2	504
Imperial	SCAG	6.30	27.9	25.6	14.0	23.3	9.3	43
Los Angeles	SCAG	6.00	23.3	23.6	19.9	19.4	13.7	1,556
Orange	SCAG	6.39	22.8	28.2	24.2	17.8	7.2	501
Riverside	SCAG	4.95	11.9	17.7	23.2	25.6	21.5	293
San Bernardino	SCAG	4.71	7.1	16.7	28.0	26.9	21.4	382
Ventura	SCAG	5.55	14.0	24.9	26.0	20.0	15.2	165
Monterey	Central Coast	3.68	3.3	11.1	17.8	27.7	40.0	90
San Luis Obispo	Central Coast	6.38	25.0	25.0	30.3	10.7	9.0	56
Santa Barbara	Central Coast	6.82	29.7	25.0	29.8	9.6	6.0	84
Santa Cruz	Central Coast	4.63	5.4	21.4	21.4	26.8	25.0	56
Fresno	Central Valley	5.37	24.7	15.1	13.3	21.4	25.6	219
Kern	Central Valley	5.42	23.4	14.9	15.4	25.0	20.7	187
Kings	Central Valley	5.09	17.2	17.2	17.2	20.0	28.5	35
Merced	Central Valley	4.00	10.6	15.2	9.0	21.3	44.0	66
Sacramento	Central Valley	5.36	18.0	17.7	24.8	18.4	21.2	278
San Benito	Central Valley	2.86	0.0	7.1	14.2	21.4	57.2	14
San Joaquin	Central Valley	4.12	9.1	7.5	22.0	28.8	32.6	132
Stanislaus	Central Valley	6.32	25.0	27.8	17.6	19.5	10.2	108
Alameda	ABAG	4.58	10.5	14.3	20.9	28.0	25.9	285
Contra Costa	ABAG	4.50	12.5	19.6	11.9	20.2	35.7	193
Marin	ABAG	6.47	29.4	27.4	17.6	15.7	9.8	51
San Francisco	ABAG	5.67	23.8	20.8	16.8	12.8	24.8	100
San Mateo	ABAG	4.55	12.3	16.2	14.9	24.6	31.8	154
Santa Clara	ABAG	5.80	29.2	14.9	18.9	15.2	21.7	328
Solano	ABAG	5.17	14.3	15.5	29.7	27.4	13.1	84

Source: 1999 STAR 9 Data; www.cde.ca.gov

Watershed Ratings Within Each County, 1999[1]

SANDAG Region

County	Name of Watershed[2]	EPA Rating	County Average	Regional Average	# Rated Watersheds in Average
San Diego	Aliso-San Onofre	1			
	Santa Margarita	no rating			
	San Diego2				
	Cottonwood-Tijuana	1			
	Salton Sea	5	2.3	**2.3**	**4**

SCAG Region

County	Name of Watershed[2]	EPA Rating	County Average	Regional Average	# Rated Watersheds in Average
Imperial	Imperial Reservoir (x)	5			
	Lower Colorado	5			
	Southern Mojave (x)	3			
	Salton Sea (x)	5	4.5		
Los Angeles	Middle Kern-Upper Tehachapi-Grapevine (x)	3			
	Santa Clara (x)	3			
	Calleguas (x)	5			
	Santa Monica Bay (x)	5			
	Los Angeles (x)	3			
	San Gabriel (x)	3			
	San Pedro Channel Islands (x)	3			
	Santa Ana (x)	3			
	Antelope-Fremont Valleys (x)	3			
	Mojave (x)	3	3.4		
Orange	San Gabriel (x)	3			
	San Jacinto (x)	4			
	Santa Ana (x)	3			
	Aliso-San Onofre (x)	1			
Riverside	Imperial Reservoir (x)	5			
	Bouse Wash	no rating			
	Tyson Wash	no rating			
	San Jacinto (x)	4			
	Santa Ana (x)	3			
	Aliso-San Onofre (x)	1			
	Santa Margarita	no rating			
	Southern Mojave (x)	3			
	Salton Sea (x)	5	3.5		

SCAG Region (continued)

County	Name of Watershed[2]	EPA Rating	County Average	Regional Average	# Rated Watersheds in Average
San Bernardino	Havasu-Mojave Lakes	1			
	Piute Wash	no rating			
	Sacramento Wash	no rating			
	Imperial Reservoir	5			
	Bill Williams	5			
	Ivanpah-Pahrump Valleys	no rating			
	San Gabriel (x)	3			
	Santa Ana (x)	3			
	Upper Amargosa	no rating			
	Death Valley-Lower Amargosa	5			
	Panamint Valley	no rating			
	Indian Wells-Searles Valleys	no rating			
	Antelope-Fremont Valleys (x)	3			
	Coyote-Cuddeback Lakes	no rating			
	Mojave (x)	3			
	Southern Mojave (x)	3			
	Salton Sea (x)	5	3.6		
Ventura	Middle Kern-Upper Tehachapi-Grapevine (x)	3			
	Cuyama	5			
	Santa Ynez	3			
	Santa Barbara Coastal	5			
	Santa Barbara Channel Islands	no rating			
	Ventura	3			
	Santa Clara (x)	3			
	Calleguas (x)	5			
	Santa Monica Bay (x)	5			
	Los Angeles (x)	3			
	San Pedro Channel Islands (x)	3	3.8	**3.7**	**25**

Central Coast Region

County	Name of Watershed[2]	EPA Rating	County Average	Regional Average	# Rated Watersheds in Average
Monterey	Upper Los Gatos-Avenal (x)	no rating			
	Pajaro (x)	5			
	Estrella (x)	no rating			
	Salinas (x)	5			
	Central Coastal (x)	3			
	Carmel (x)	5	4.5		
San Luis Obispo	Middle Kern-Upper Tehachapi-Grapevine	3			
	Upper Los Gatos-Avenal (x)	no rating			
	Tulare-Buena Vista Lakes (x)	6			
	Carrizo Plain	no rating			
	Estrella (x)	no rating			
	Salinas (x)	5			
	Central Coastal (x)	3			
	Cuyama (x)	5			
	Santa Maria (x)	5	4.5		
Santa Barbara	Cuyama (x)	5			
	Santa Maria (x)	5			
	San Antonio	no rating			
	Santa Ynez	3			
	Santa Barbara Coastal	5			
	Santa Barbara Channel Islands	no rating			
	Ventura	3			
	Santa Clara	3			
	San Pedro Channel Islands	3	3.9		
Santa Cruz	Coyote	5			
	Tomales-Drake Bays (x)	5			
	San Lorenzo-Soquel (x)	3			
	Pajaro (x)	5			
	Carmel (x)	5	4.6	**4.2**	**16**

Central Valley Region

County	Name of Watershed[2]	EPA Rating	County Average	Regional Average	# Rated Watersheds in Average
Fresno	Upper Kaeweah	3			
	Mill	no rating			
	Upper Dry	no rating			
	Upper King	5			
	Upper Los Gatos-Avenal (x)	no rating			
	Tulare-Buena Vista Lakes (x)	6			
	Middle San Joaquin-Lower Chowchilla (x)	5			
	Upper San Joaquin	no rating			
	Panoche-San Luis Reservoir (x)	no rating			
	Pajaro (x)	5			
	Salinas (x)	5			
	Crowley Lake	5			
	Owens Lake	5	4.9		
Kern	Upper Kern	3			
	South Fork Kern	no rating			
	Middle Kern-Upper Tehachapi-Grapevine	3			
	Upper Poso	5			
	Upper Deer-Upper White	no rating			
	Upper Los Gatos-Avenal (x)	no rating			
	Tulare-Buena Vista Lakes (x)	6			
	Carrizo Plain	no rating			
	Estrella	no rating			
	Cuyama	5			
	Santa Clara	3			
	Indian Wells-Searles Valleys	no rating			
	Antelope-Fremont Valleys	3			
	Coyote-Cuddeback Lakes	no rating			
	Mojave	3	3.9		
Kings	Upper Los Gatos-Avenal (x)	no rating			
	Tulare-Buena Vista Lakes (x)	6	6		
Merced	Middle San Joaquin-Lower Chowchilla (x)	5			
	Middle San Joaquin-Lower Merced-Lower Stanislaus (x)	5			
	Upper Chowchilla-Upper Fresno	no rating			
	Upper Merced	5			
	Panoche-San Luis Reservoir (x)	no rating			
	Pajaro (x)	5	5		

Central Valley Region (continued)

County	Name of Watershed[2]	EPA Rating	County Average	Regional Average	# Rated Watersheds in Average
Sacramento	Lower Sacramento	3			
	North Fork American	3			
	South Fork American	no rating			
	San Joaquin Delta (x)	5			
	Lower Consumnes-Lower Mokelumne (x)	5			
	Upper Consumnes	no rating	4		
San Benito	Upper Los Gatos-Avenal (x)	no rating			
	Middle San Joaquin-Lower Chowchilla (x)	5			
	Panoche-San Luis Reservoir (x)	no rating			
	Pajaro (x)	5			
	Salinas (x)	5			
	Carmel	5	5		
San Joaquin	Middle San Joaquin-Lower Merced-Lower Stanislaus (x)	5			
	San Joaquin Delta (x)	5			
	Lower Calaveras-Mormon Slough	no rating			
	Lower Consumnes-Lower Mokelumne (x)	5			
	Panoche-San Luis Reservoir (x)	no rating			
	San Francisco Bay (x)	2	4.3		
Stanislaus	Middle San Joaquin-Lower Chowchilla (x)	5			
	Middle San Joaquin-Lower Merced-Lower Stanislaus (x)	5			
	Lower Calaveras-Mormon Slough (x)	no rating			
	Upper Merced (x)	5			
	Upper Tuolumne	3			
	Upper Stanislaus	no rating			
	Panoche-San Luis Reservoir (x)	no rating			
	Coyote	5			
	San Francisco Bay (x)	2			
	Pajaro (x)	5	4.3	**5**	**24**

ABAG Region

County	Name of Watershed[2]	EPA Rating	County Average	Regional Average	# Rated Watersheds in Average
Alameda	San Joaquin Delta (x)	5			
	Panoche-San Luis Reservoir (x)	no rating			
	Suisun Bay (x)	6			
	San Pablo Bay (x)	4			
	Coyote (x)	5			
	San Francisco Bay (x)	2	4.4		
Contra Costa	San Joaquin Delta (x)	5			
	Suisin Bay (x)	6			
	San Pablo Bay (x)	4			
	San Francisco Bay (x)	2	4.3		
Marin	Bodega Bay	3			
	San Pablo Bay (x)	4			
	Tomales-Drake Bays (x)	5	4		
San Francisco	San Pablo Bay (x)	4			
	San Francisco Bay (x)	2			
	Tomales-Drake Bays (x)	5	3.7		
San Mateo	Coyote (x)	5			
	San Francisco Bay (x)	2			
	Tomales-Drake Bays (x)	5			
	San Lorenzo-Soquel (x)	3	3.8		
Santa Clara	Panoche-San Luis Reservoir (x)	no rating			
	Coyote (x)	5			
	San Francisco Bay (x)	2			
	Tomales-Drake Bays (x)	5			
	San Lorenzo-Soquel (x)	3			
	Pajaro	5	4		
Solano	Lower Sacramento	3			
	Suisun Bay (x)	6			
	San Pablo Bay (x)	4	4.3	**4.1**	**10**

Source: www.epa.gov/surf3/counties (accessed 3/23/2000)

[1]The Index of Watershed Indicators Score is interpreted as: 1= Better quality — Low vulnerability, 2=Better quality — High vulnerability, 3=Less serious problems — Low vulnerability, 4=Less serious problems —High vulnerability, 5=More serious problems — Low vulnerability, 6=More serious problems — High vulnerability, for additional information on these ratings please go to www.epa.gov/surf3/counties.

[2]An (x) after the name of a watershed indicates that particular watershed crosses other counties within the same region. In these cases, the rating was only included once in the overall average for the region. These averages are provided for interpretive/comparative purposes only and were calculated by the authors. The reader should also note that watersheds cross counties as well as regions in some cases. Ratings and locations are provided according to EPA guidelines, and no judgment of percent of watershed contained within each region or county is offered.

1996 Estimated and 2010 Forecasted Annual Average Emissions (see Appendix D for Emission Types; Cells Do Not Add to Column Totals Due to Rounding)

SANDAG
San Diego

Year	Emission category	Emission type						
		TOG	ROG	CO	NOx	SOx	PM	PM10
1996	Stationary	270	45	21	16	3	15	7
	Area-Wide	71	45	120	4	0	180	92
	Mobile	160	150	1300	200	8	10	9
	Natural	6	4	67	1	-	11	10
	Total	**510**	**240**	**1500**	**220**	**11**	**210**	**120**
2010	Stationary	340	60	25	13	4	19	10
	Area-Wide	75	48	100	6	0	230	120
	Mobile	69	64	680	130	8	10	8
	Natural	7	4	67	1	-	11	11
	Total	**490**	**180**	**870**	**150**	**12**	**270**	**150**

Source: California Air Resources Board 1999

SCAG Region
Imperial

Year	Emission category	Emission type						
		TOG	ROG	CO	NOx	SOx	PM	PM10
1996	Stationary	3	2	1	8	0	6	3
	Area-Wide	13	10	43	0	0	460	240
	Mobile	13	11	94	27	1	1	1
	Natural	-	-	-	-	-	-	-
	Total	**29**	**24**	**140**	**36**	**1**	**470**	**250**
2010	Stationary	3	3	2	11	1	9	4
	Area-Wide	15	12	47	0	-	500	260
	Mobile	7	7	65	23	1	1	1
	Natural	-	-	-	-	-	-	-
	Total	**26**	**21**	**110**	**34**	**2**	**510**	**260**

Source: California Air Resources Board 1999

Los Angeles

Year	Emission category	Emission type						
		TOG	ROG	CO	NOx	SOx	PM	PM10
1996	Stationary	400	190	44	97	29	29	20
	Area-Wide	170	130	280	22	0	370	200
	Mobile	410	370	3400	570	35	30	26
	Natural	6	3	63	1	-	10	10
	Total	**990**	**690**	**3800**	**690**	**65**	**440**	**250**
2010	Stationary	460	230	44	73	18	33	23
	Area-Wide	170	130	220	25	0	410	220
	Mobile	170	160	1900	360	43	28	24
	Natural	6	3	63	1	-	10	10
	Total	**810**	**520**	**2300**	**460**	**62**	**480**	**270**

Source: California Air Resources Board 1999

Orange

Year	Emission category	Emission type						
		TOG	ROG	CO	NOx	SOx	PM	PM10
1996	Stationary	120	66	7	14	1	6	3
	Area-Wide	46	38	100	6	0	110	58
	Mobile	130	120	1100	160	3	7	6
	Natural	1	0	8	0	-	1	1
	Total	**300**	**220**	**1300**	**180**	**5**	**130**	**69**
2010	Stationary	150	83	8	13	2	6	4
	Area-Wide	45	37	72	7	0	130	68
	Mobile	57	52	700	100	4	7	5
	Natural	1	0	8	0	-	1	1
	Total	**250**	**170**	**790**	**120**	**6**	**150**	**79**

Source: California Air Resources Board 1999

Riverside

Year	Emission category	Emission type						
		TOG	ROG	CO	NOx	SOx	PM	PM10
1996	Stationary	39	19	5	15	1	4	2
	Area-Wide	96	31	64	4	0	210	110
	Mobile	92	82	720	160	4	8	7
	Natural	5	3	49	1	-	8	8
	Total	**230**	**130**	**840**	**180**	**5**	**230**	**130**
2010	Stationary	51	26	6	14	1	4	3
	Area-Wide	100	36	67	6	0	240	130
	Mobile	43	40	460	120	5	8	6
	Natural	5	3	49	1	-	8	8
	Total	**200**	**100**	**580**	**150**	**6**	**260**	**140**

Source: California Air Resources Board 1999

San Bernardino

Year	Emission category	Emission type						
		TOG	ROG	CO	NOx	SOx	PM	PM10
1996	Stationary	76	30	22	94	9	29	21
	Area-Wide	140	36	94	4	0	230	130
	Mobile	100	94	750	190	7	10	9
	Natural	2	1	22	0	-	3	3
	Total	**320**	**160**	**890**	**290**	**15**	**270**	**160**
2010	Stationary	110	39	27	110	11	36	25
	Area-Wide	160	45	110	6	0	330	180
	Mobile	65	61	560	150	8	9	8
	Natural	2	1	22	0	-	4	3
	Total	**340**	**150**	**720**	**270**	**19**	**380**	**220**

Source: California Air Resources Board 1999

Ventura

Year	Emission category	Emission type						
		TOG	ROG	CO	NOx	SOx	PM	PM10
1996	Stationary	51	10	9	5	2	2	1
	Area-Wide	17	15	35	2	0	43	23
	Mobile	36	32	300	45	2	2	2
	Natural	7	5	29	0	-	5	4
	Total	**110**	**62**	**370**	**52**	**4**	**51**	**30**
2010	Stationary	64	14	10	6	2	2	2
	Area-Wide	18	15	28	2	-	51	27
	Mobile	13	12	150	25	2	2	1
	Natural	7	5	29	0	-	5	5
	Total	**100**	**47**	**210**	**34**	**4**	**60**	**34**

Source: California Air Resources Board 1999

Central Coast

Monterey

Year	Emission category	Emission type						
		TOG	ROG	CO	NOx	SOx	PM	PM10
1996	Stationary	110	8	13	15	3	3	2
	Area-Wide	18	16	49	1	0	67	35
	Mobile	21	19	180	32	1	2	1
	Natural	2	1	20	0	-	3	3
	Total	**150**	**44**	**260**	**49**	**5**	**75**	**41**
2010	Stationary	140	10	18	15	4	3	2
	Area-Wide	20	17	55	2	0	71	37
	Mobile	11	10	110	23	2	2	2
	Natural	2	1	20	0	-	3	3
	Total	**170**	**38**	**200**	**40**	**6**	**79**	**44**

Source: California Air Resources Board 1999

San Luis Obispo

Year	Emission category	Emission type						
		TOG	ROG	CO	NOx	SOx	PM	PM10
1996	Stationary	10	7	1	4	14	2	1
	Area-Wide	11	7	41	1	0	47	27
	Mobile	15	14	130	28	1	1	1
	Natural	2	1	22	0	-	4	3
	Total	**38**	**29**	**190**	**33**	**14**	**53**	**32**
2010	Stationary	16	11	2	6	15	3	1
	Area-Wide	13	8	47	1	-	58	33
	Mobile	9	8	83	21	1	1	1
	Natural	2	1	22	0	-	4	3
	Total	**40**	**28**	**150**	**28**	**16**	**65**	**39**

Source: California Air Resources Board 1999

Santa Barbara

Year	Emission category	Emission type						
		TOG	ROG	CO	NOx	SOx	PM	PM10
1996	Stationary	64	8	4	6	2	2	1
	Area-Wide	10	9	24	1	0	31	16
	Mobile	20	18	170	30	1	1	1
	Natural	69	19	31	0	-	5	4
	Total	**160**	**54**	**230**	**37**	**2**	**39**	**23**
2010	Stationary	77	11	5	7	2	2	1
	Area-Wide	11	9	22	1	-	35	18
	Mobile	9	8	94	21	1	1	1
	Natural	69	19	31	1	-	5	4
	Total	**170**	**47**	**150**	**30**	**3**	**42**	**24**

Source: California Air Resources Board 1999

Santa Cruz

Year	Emission category	Emission type						
		TOG	ROG	CO	NOx	SOx	PM	PM10
1996	Stationary	78	6	15	4	1	2	1
	Area-Wide	9	7	24	1	0	21	12
	Mobile	12	11	99	12	0	0	0
	Natural	0	0	1	0	-	0	0
	Total	**99**	**24**	**140**	**17**	**1**	**23**	**13**
2010	Stationary	92	8	17	5	1	3	1
	Area-Wide	9	7	21	1	0	24	14
	Mobile	4	4	47	7	0	0	0
	Natural	0	-	1	-	-	0	0
	Total	**110**	**19**	**86**	**13**	**1**	**27**	**15**

Source: California Air Resources Board 1999

Central Valley

Fresno

Year	Emission category	Emission type						
		TOG	ROG	CO	NOx	SOx	PM	PM10
1996	Stationary	320	22	11	34	8	8	6
	Area-Wide	120	33	59	3	0	220	110
	Mobile	52	46	410	64	1	3	2
	Natural	2	1	17	0	-	3	3
	Total	**500**	**100**	**500**	**100**	**9**	**240**	**130**
2010	Stationary	280	23	11	35	9	8	6
	Area-Wide	130	36	60	4	0	230	120
	Mobile	25	22	260	45	1	3	2
	Natural	2	1	17	0	-	3	3
	Total	**430**	**82**	**350**	**84**	**11**	**250**	**130**

Source: California Air Resources Board 1999

Kern

Year	Emission category	Emission type						
		TOG	ROG	CO	NOx	SOx	PM	PM10
1996	Stationary	180	66	28	110	11	14	10
	Area-Wide	100	30	46	2	0	160	82
	Mobile	53	47	410	77	2	6	5
	Natural	2	1	16	0	-	3	3
	Total	**340**	**140**	**500**	**190**	**13**	**180**	**100**
2010	Stationary	160	59	31	110	12	16	12
	Area-Wide	110	32	48	3	0	170	90
	Mobile	30	27	260	54	2	5	5
	Natural	2	1	16	0	-	3	3
	Total	**300**	**120**	**360**	**170**	**14**	**200**	**110**

Source: California Air Resources Board 1999

Kings

Year	Emission category	Emission type						
		TOG	ROG	CO	NOx	SOx	PM	PM10
1996	Stationary	6	3	2	10	1	3	2
	Area-Wide	100	16	22	0	0	67	34
	Mobile	10	9	64	13	0	1	1
	Natural	0	0	0	-	-	0	0
	Total	**120**	**28**	**88**	**23**	**1**	**70**	**36**
2010	Stationary	8	5	2	12	1	3	2
	Area-Wide	100	17	27	1	-	68	35
	Mobile	6	6	41	8	0	1	1
	Natural	-	-	-	-	-	-	-
	Total	**120**	**27**	**71**	**21**	**1**	**71**	**37**

Source: California Air Resources Board 1999

Merced

Year	Emission category	Emission type						
		TOG	ROG	CO	NOx	SOx	PM	PM10
1996	Stationary	4	3	12	7	1	3	2
	Area-Wide	110	16	40	1	0	85	45
	Mobile	14	13	130	31	1	1	1
	Natural	0	0	0	0	-	0	0
	Total	**130**	**32**	**180**	**39**	**1**	**90**	**48**
2010	Stationary	4	3	12	7	1	4	2
	Area-Wide	120	19	80	1	-	91	49
	Mobile	8	7	87	21	1	1	1
	Natural	0	-	1	-	-	0	0
	Total	**130**	**29**	**180**	**29**	**2**	**96**	**52**

Source: California Air Resources Board 1999

Sacramento

Year	Emission category	Emission type						
		TOG	ROG	CO	NOx	SOx	PM	PM10
1996	Stationary	91	18	2	5	0	3	2
	Area-Wide	51	22	62	3	0	74	39
	Mobile	72	63	560	79	2	3	3
	Natural	0	0	0	0	-	0	0
	Total	**210**	**100**	**630**	**86**	**2**	**80**	**44**
2010	Stationary	120	24	2	6	0	4	2
	Area-Wide	55	25	59	5	0	94	51
	Mobile	27	25	300	53	3	3	2
	Natural	-	-	0	-	-	-	-
	Total	**200**	**74**	**360**	**64**	**3**	**100**	**55**

Source: California Air Resources Board 1999

San Benito

Year	Emission category	Emission type						
		TOG	ROG	CO	NOx	SOx	PM	PM10
1996	Stationary	13	1	0	1	0	2	1
	Area-Wide	2	2	4	0	0	19	10
	Mobile	3	2	25	6	0	0	0
	Natural	0	0	3	0	-	1	1
	Total	**18**	**5**	**32**	**7**	**0**	**22**	**12**
2010	Stationary	20	1	0	1	-	2	1
	Area-Wide	2	2	5	0	-	21	12
	Mobile	1	1	18	4	0	0	0
	Natural	0	0	3	-	-	1	1
	Total	**24**	**4**	**27**	**5**	**0**	**24**	**13**

Source: California Air Resources Board 1999

San Joaquin

Year	Emission category	Emission type						
		TOG	ROG	CO	NOx	SOx	PM	PM10
1996	Stationary	14	10	5	17	3	7	4
	Area-Wide	83	19	42	2	0	77	41
	Mobile	35	31	290	49	1	2	2
	Natural	0	0	0	0	-	0	0
	Total	**130**	**59**	**340**	**68**	**5**	**87**	**47**
2010	Stationary	16	12	6	21	4	8	5
	Area-Wide	85	20	43	2	0	83	44
	Mobile	17	16	200	34	1	2	2
	Natural	-	-	0	-	-	-	-
	Total	**120**	**47**	**240**	**57**	**6**	**93**	**50**

Source: California Air Resources Board 1999

Stanislaus

Year	Emission category	Emission type						
		TOG	ROG	CO	NOx	SOx	PM	PM10
1996	Stationary	64	7	2	9	2	4	2
	Area-Wide	280	32	45	2	0	69	36
	Mobile	24	21	200	35	1	2	1
	Natural	0	0	0	0	-	0	0
	Total	**370**	**60**	**250**	**45**	**3**	**74**	**40**
2010	Stationary	56	8	2	10	3	5	3
	Area-Wide	280	35	68	2	0	80	44
	Mobile	11	10	120	22	1	1	1
	Natural	0	-	1	-	-	0	0
	Total	**350**	**53**	**200**	**34**	**3**	**86**	**47**

Source: California Air Resources Board 1999

ABAG Region

Alameda

Year	Emission category	Emission type						
		TOG	ROG	CO	NOx	SOx	PM	PM10
1996	Stationary	140	28	2	7	2	6	4
	Area-Wide	28	20	49	4	0	42	23
	Mobile	65	58	580	94	3	4	3
	Natural	0	0	0	0	-	0	0
	Total	**240**	**110**	**630**	**100**	**5**	**52**	**30**
2010	Stationary	150	28	2	6	2	8	5
	Area-Wide	26	17	36	4	0	45	24
	Mobile	27	24	320	60	7	3	3
	Natural	-	-	0	-	-	-	-
	Total	**200**	**68**	**360**	**69**	**9**	**56**	**31**

Source: California Air Resources Board 1999

Contra Costa

Year	Emission category	Emission type						
		TOG	ROG	CO	NOx	SOx	PM	PM10
1996	Stationary	130	36	39	61	32	8	6
	Area-Wide	20	14	40	3	0	33	18
	Mobile	49	43	420	61	3	2	2
	Natural	0	0	0	0	-	0	0
	Total	**200**	**93**	**490**	**120**	**36**	**44**	**26**
2010	Stationary	140	35	45	54	35	9	6
	Area-Wide	18	11	30	3	0	35	19
	Mobile	20	18	220	39	4	2	2
	Natural	-	-	0	-	-	-	-
	Total	**170**	**65**	**300**	**96**	**38**	**46**	**27**

Source: California Air Resources Board 1999

Marin

Year	Emission category	Emission type						
		TOG	ROG	CO	NOx	SOx	PM	PM10
1996	Stationary	13	3	0	0	0	0	0
	Area-Wide	9	4	14	1	0	11	6
	Mobile	16	14	130	16	0	1	1
	Natural	-	-	-	-	-	-	-
	Total	**38**	**21**	**140**	**17**	**0**	**12**	**7**
2010	Stationary	15	2	0	0	-	0	0
	Area-Wide	9	4	11	1	0	11	6
	Mobile	7	7	63	8	0	1	0
	Natural	-	-	-	-	-	-	-
	Total	**31**	**13**	**75**	**9**	**0**	**12**	**7**

Source: California Air Resources Board 1999

San Francisco

Year	Emission category	Emission type						
		TOG	ROG	CO	NOx	SOx	PM	PM10
1996	Stationary	17	10	2	6	0	1	1
	Area-Wide	14	11	19	3	0	13	7
	Mobile	26	23	220	33	4	1	1
	Natural	-	-	-	-	-	-	-
	Total	**56**	**43**	**240**	**41**	**4**	**15**	**9**
2010	Stationary	18	10	2	5	0	1	1
	Area-Wide	12	9	14	2	0	14	8
	Mobile	10	9	110	21	4	1	1
	Natural	-	-	-	-	-	-	-
	Total	**40**	**28**	**130**	**29**	**5**	**16**	**10**

Source: California Air Resources Board 1999

San Mateo

Year	Emission category	Emission type						
		TOG	ROG	CO	NOx	SOx	PM	PM10
1996	Stationary	54	8	1	2	0	2	1
	Area-Wide	15	11	29	2	0	21	12
	Mobile	39	35	340	57	1	2	1
	Natural	0	0	0	0	-	0	0
	Total	**110**	**54**	**370**	**61**	**1**	**25**	**14**
2010	Stationary	57	8	1	2	0	2	1
	Area-Wide	14	9	22	2	0	22	12
	Mobile	16	15	170	38	1	2	1
	Natural	-	-	0	-	-	-	-
	Total	**88**	**31**	**190**	**42**	**1**	**26**	**15**

Source: California Air Resources Board 1999

Santa Clara

Year	Emission category	Emission type						
		TOG	ROG	CO	NOx	SOx	PM	PM10
1996	Stationary	180	23	11	15	1	4	2
	Area-Wide	40	25	58	5	0	74	40
	Mobile	78	69	680	100	2	4	3
	Natural	0	0	2	0	-	0	0
	Total	**290**	**120**	**750**	**120**	**3**	**82**	**46**
2010	Stationary	190	22	13	13	2	4	3
	Area-Wide	39	21	44	4	0	82	45
	Mobile	30	28	370	62	2	3	3
	Natural	0	0	2	-	-	0	0
	Total	**260**	**71**	**430**	**80**	**4**	**90**	**50**

Source: California Air Resources Board 1999

Solano

Year	Emission category	Emission type						
		TOG	ROG	CO	NOx	SOx	PM	PM10
1996	Stationary	37	14	2	11	17	1	1
	Area-Wide	11	7	22	1	0	33	18
	Mobile	30	27	210	37	1	3	3
	Natural	0	0	0	0	-	0	0
	Total	**78**	**48**	**230**	**50**	**18**	**38**	**22**
2010	Stationary	44	16	2	11	18	2	1
	Area-Wide	11	7	19	1	-	38	20
	Mobile	17	16	120	26	2	3	3
	Natural	-	-	0	-	-	-	-
	Total	**73**	**39**	**140**	**38**	**19**	**43**	**24**

Source: California Air Resources Board 1999