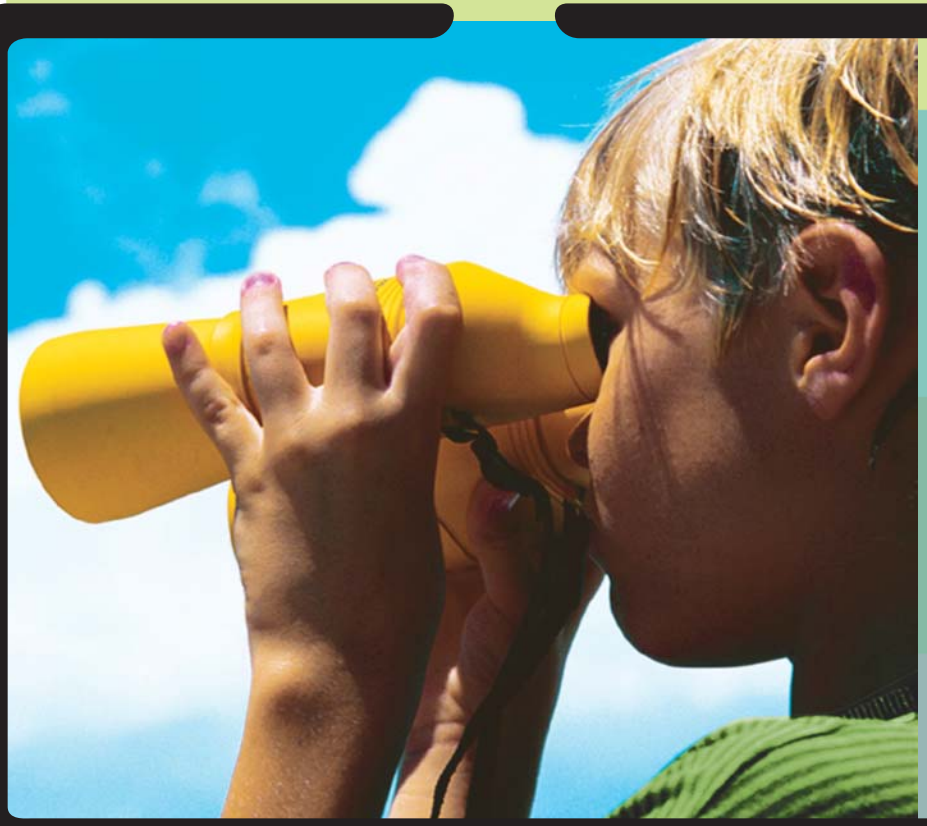
THE STATE OF THE REGION 2002



Measuring Progress In the 21st Century

SOUTHERN CALIFORNIA
ASSOCIATION of GOVERNMENTS

THE STATE OF THE REGION 2002

Measuring Progress in the 21st Century

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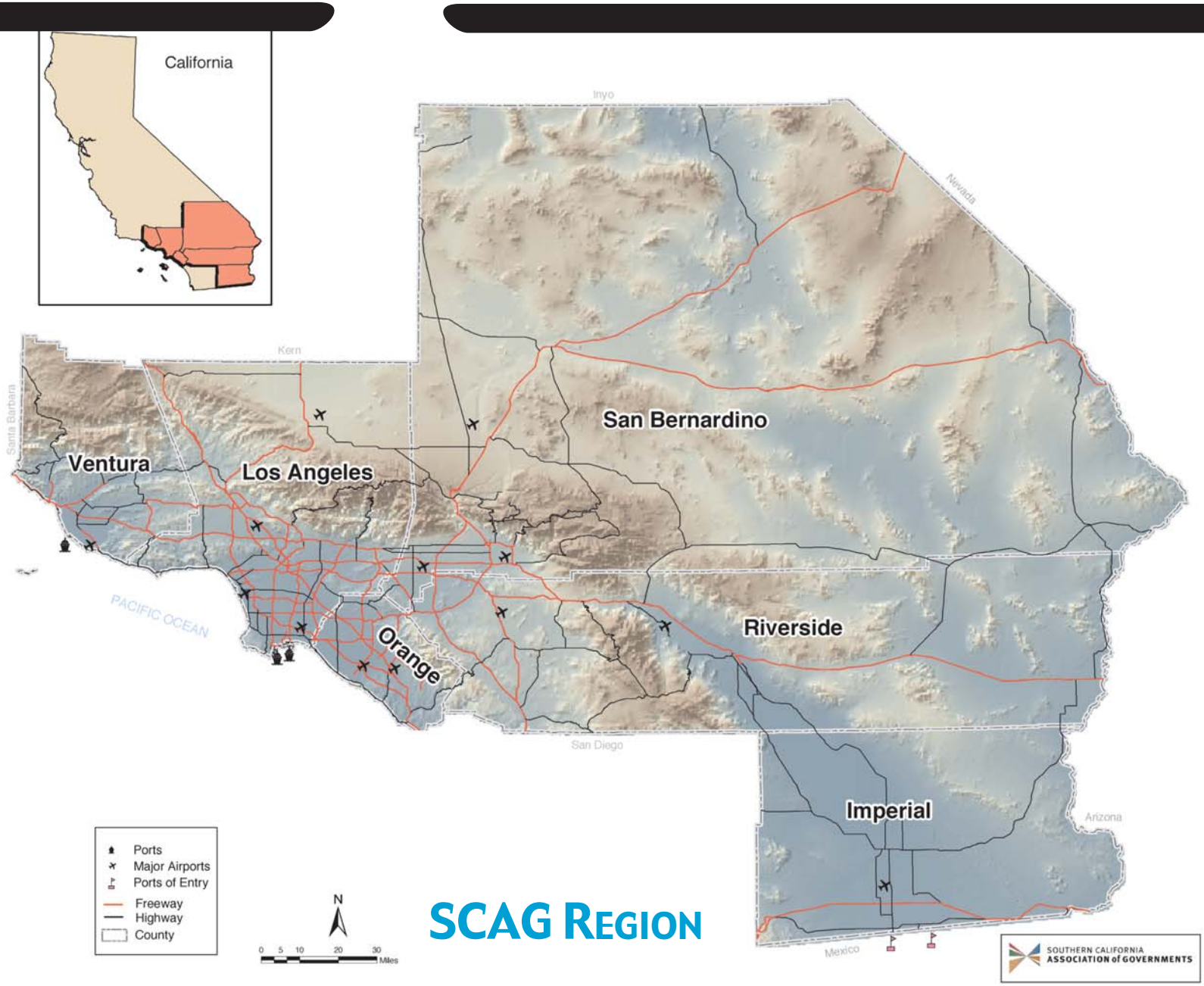
PREFACE

The State of the Region 2002 is the Southern California Association of Governments (SCAG) fifth annual report on performance assessment for the region. SCAG, which is both the Council of Governments and the designated Metropolitan Planning Organization for Southern California, represents six counties, 187 cities, and 14 subregions. With over 17 million residents, the region's population is larger than the entire state of Florida, the fourth most populous state in the nation. The SCAG Region includes Imperial, Los Angeles, Orange, Riverside, San Bernardino and Ventura Counties. SCAG works with local governments, public agencies and other partners to address the regional issues that are vital in shaping our common future.

The State of the Region 2002 tracks Southern California's performance both in 2001, as well as providing a discussion of the progress made between 1990 and 2000. During the 1990s, there were significant transformations in the demography and economy of the region which set the context for future growth and change in Southern California.

The report assesses the region's performance with respect to key issue areas and goals identified in SCAG's *Regional Comprehensive Plan and Guide*. The Plan had three overall goals for Southern California: to raise the standard of living, enhance the quality of life, and foster equal access to resources. Members of SCAG's Benchmarks Task Force, which consists of elected officials and representatives from business and academia, identified the performance measures to be tracked in this report. In addition to looking at how the region performed in each county and as a whole, *The State of the Region 2002* also compares Southern California with other large metropolitan regions in the nation.

This report tracks the region's perform-ance both in 2001 and between 1990 and 2000


California
Inyo
Nevada
Kern
Santa Barbara
Ventura
Los Angeles
San Bernardino
PACIFIC OCEAN
Orange
Riverside
San Diego
Imperial
Arizona
Mexico
Ports
Major Airports
Ports of Entry
Freeway
Highway
County
N
0 5 10 20 30
Miles
SCAG Region
SOUTHERN CALIFORNIA ASSOCIATION of GOVERNMENTS

Map 1

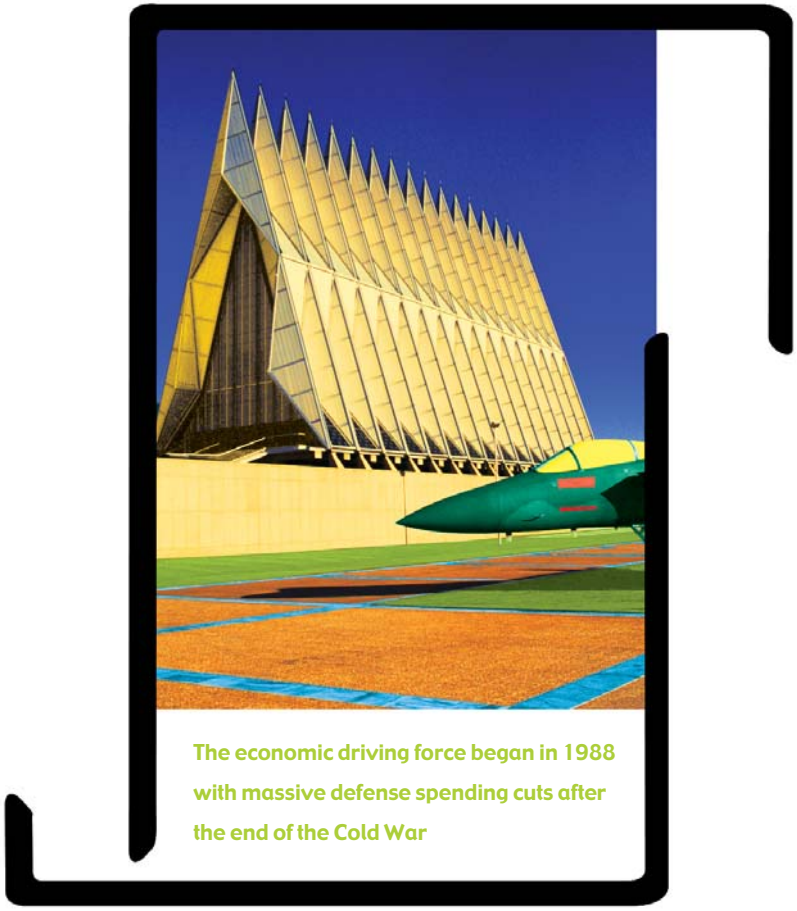
EXECUTIVE SUMMARY

The SCAG Region, also referred to as Southern California in this report, includes Imperial, Los Angeles, Orange, Riverside, San Bernardino and Ventura Counties (see Map 1 page 2). With over 17 million people, it is the second most populous metropolitan region in the nation, following the New York Region. It is also one of the most dynamic gateway regions in the world.

The State of the Region 2002 assesses how Southern California performed during 2001 as well as during the 1990s. Key regional issue areas discussed include population, economy, housing, transportation, environment and quality of life. Performance was assessed through various indicators at both the regional and county levels, and four major themes emerged:

- The demographic and economic driving forces that significantly shaped the performance of our region during the 1990s originated outside of the region.
- During the 1990s, our region lost ground relative to the basic socioeconomic well-being of our residents, contrary to the sustaining economic prosperity and improved standard of living throughout the rest of the nation.
- Nevertheless, during the last decade, Southern California managed to achieve significant progress in various areas, including diversifying its economic base, improving air quality, and reducing violent crime rates.
- The region's performance in 2001 was mixed.

1. The demographic and economic driving forces that significantly shaped the performance of our region during the 1990s originated outside of the region.



The economic driving force began in 1988 with massive defense spending cuts after the end of the Cold War

The demographic and economic driving forces that significantly impacted the region were interrelated. The demographic driving force was an unprecedented large flow of net domestic outmigration due to the recession and the sustaining flow of foreign immigration. The economic driving force began in 1988 with massive defense spending cuts after the end of the Cold War and was followed by the most severe recession since the Great Depression of the 1930s.

Demographic Driving Force

The region's foreign-born population increased by 3 million between 1980 and 2000, from 2.1 million to 5.1 million, about sixty percent of the population growth in the region. During the 1990s, the 1.5 million net domestic outmigration was essentially replaced by the same magnitude of immigration. When compared with domestic outmigrants, recent foreign immigrants, on average, are younger, have less education and lower household income, and live in larger households in rental housing. While 81 percent of the domestic outmigrants completed at least a high school education, only 46 percent of the recent immigrants were able to achieve the same.

The recession caused the largest loss of durable manufacturing jobs in the region's history

Economic Driving Force

During the first three years of the 1990s, the region lost nearly half a million jobs due to the significant job loss in defense-related industries. While it took the nation less than one year to get out of the recession in 1991, it took our region three years. The recession also caused the largest loss of durable manufacturing jobs in the region's history, about 200,000 in the 1990s. The majority of the jobs lost were aerospace-related jobs with wages almost 80 percent higher than the region's overall average.

Both the demographic and economic driving forces impacted every county in the region. However, having much higher shares of the region's foreign-born population and defense and aerospace-related jobs, Los Angeles County experienced disproportionately much higher impacts throughout the decade. Total jobs in Los Angeles County in 2000 were still 67,000 jobs lower than the 1990 level, though by 2000 the other five counties in the region had long recovered the jobs lost in the recession of the early 1990s.

2. During the 1990s, our region lost ground relative to the basic socioeconomic well-being of our residents, contrary to the sustaining economic prosperity and improved standard of living throughout the rest of the nation.

During the 1990s, the region lost ground in several major socioeconomic well-being indicators, including educational attainment, unemployment and income, poverty and housing affordability.

Educational Attainment

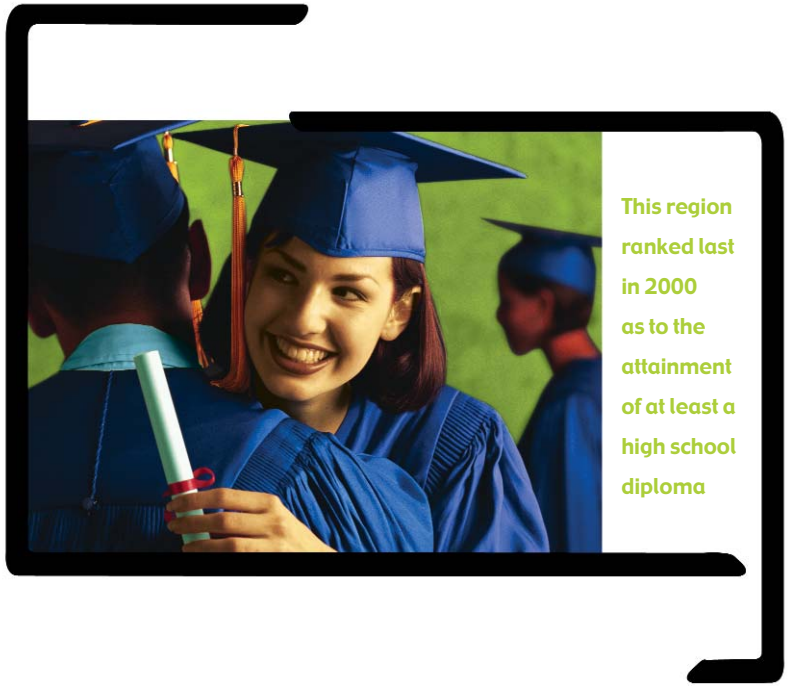
Among the nine largest metropolitan regions in the nation, the region ranked last in 2000 as to the percentage of residents with at least a high school diploma. At a time when the new information-based economy requires a better educated labor force and provides much higher return for more education, Southern California is increasingly less competitive in its human capital.

Unemployment and Income

Unemployment in the region was consistently higher than that in the nation throughout the 1990s. The higher wage manufacturing jobs lost were replaced by lower wage service jobs, making the region's overall wage level less competitive compared to the rest of the state. In addition, the region's median annual earnings have been on a declining path. Since 1990, the gap between the region and the state in per capita income has been gradually widening. When comparing per capita income among the 17 largest metropolitan regions in the nation, the region dropped from the 4th highest in 1970, to 7th in 1990 and 16th in 2000. Median household income declined during the last decade, contrary to the improving trends in the state and the nation.

Poverty

In 1999, close to one in six persons of all ages and one in five children under 18 in Southern California were in poverty. During the 1990s, poverty rates for both measures increased significantly in the region while decreasing at the national level. Among the nine largest metropolitan regions in the nation, the region had the highest poverty rate among persons of all ages as well as children under 18. Unlike Southern California, many of the largest metropolitan regions made improvements in reducing poverty rates during the 1990s, particularly for children under 18.



Housing Affordability

The decline of median household income and the larger household size of the immigrant population, combined with the undersupply of new housing units, shaped the housing performance outcome of the last decade. When comparing homeownership in the nine largest metropolitan regions in the nation, the region's homeownership rate of 55 percent in 2000 ranked 8th, above only the New York Region. Among the largest metropolitan regions, Southern California had the highest percentage of owner and renter households with housing cost greater than 30 percent of the household income. Contrary to the decreasing trend at the national level, the percentage of housing considered crowded increased in every county in the region from 1990 to 2000. Almost 20 percent of the households in the region lived in crowded housing in 2000, compared to only 6 percent for the nation.

When comparing homeownership in the nine largest metropolitan regions in the nation, the region's homeownership rate of 55 percent in 2000 ranked 8th

For all of the socioeconomic well-being indicators discussed above, there were persistent disparities among different racial and ethnic groups in the region throughout the 1990s. In all cases, Hispanic and African American residents had a lower standing of socioeconomic well-being than Asians and Non-Hispanic Whites.

3. Nevertheless, during the last decade, Southern California managed to achieve significant progress in various areas, including diversifying its economic base, improving air quality, and reducing violent crime rates throughout the region.

The significant decline in defense and aerospace manufacturing related employment during the 1990s was more than offset by dramatic growth in service-oriented employment. Business services, direct international trade services, tourism, health services, motion pictures/television production, apparel and textile industries together grew by more than 500,000 jobs during the decade. The majority of these jobs were created by small and medium-size companies. Total value of international trade through the Los Angeles Customs District more than doubled, from $130 billion to $285 billion. By the end of the 1990s, the region's economic base was much more diversified than it was at the beginning.

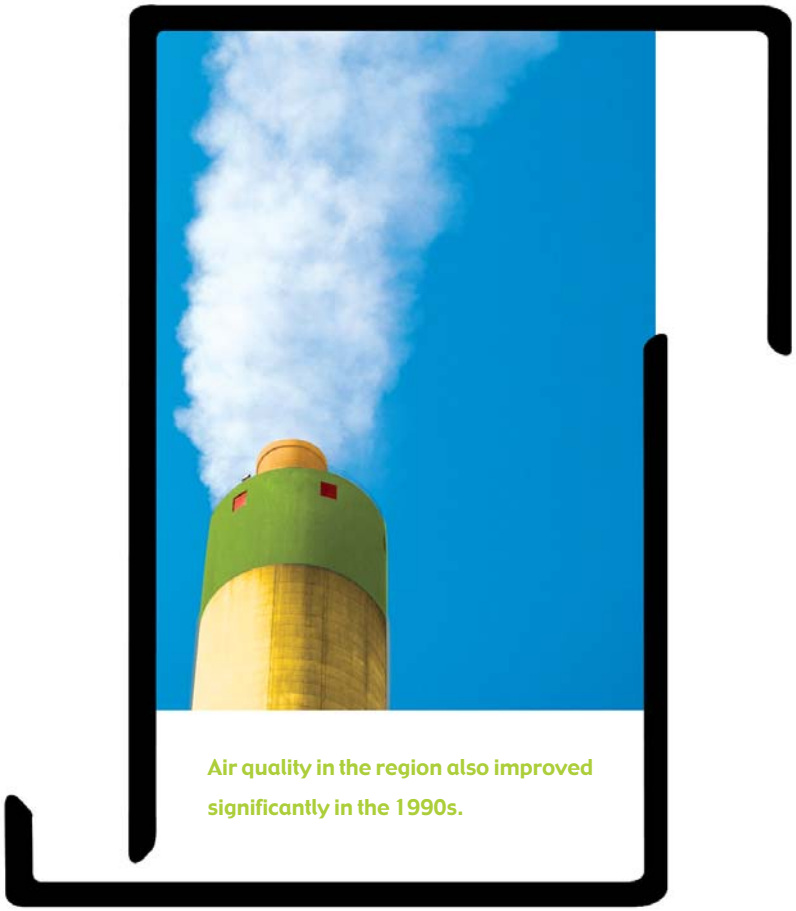
Air quality in the region also improved significantly in the 1990s. There were fewer days in which federal and state standards were exceeded for carbon monoxide, ozone and PM10.

Both violent crime and juvenile felony arrest rates decreased significantly during the decade. In addition, the region also made improvements in several other areas. For example, despite the rising population, the amount of waste sent to landfills decreased by 10 percent from 1990 to 2000. Among the nine largest metropolitan regions in the nation, the region had the highest percentage of workers who carpooled to work in 2000. The rate of increase of vehicle miles traveled throughout the 1990s dropped sharply from the previous decade.

4. The region's performance in 2001 was mixed.

Employment growth in 2001 began to show some signs of renewed strength. Though employment grew at a slower pace than in the previous four years, every county increased its employment during this national recession year. The value of new housing construction also continued to increase despite the economic slowdown. Also net domestic outmigration from the region finally stopped in 2000, and the region has since experienced net domestic in-migration.

The combined effects of the national recession and the September 11 terrorist attack, however, led to the largest reductions since 1990 in international trade, international tourism and airport-related activities. Those reductions were impacted by the business cycle and do not indicate changes in long-term growth trends. In addition, statewide data indicated that violent crime rates increased in 2001, reversing a decade trend of decline. Also Los Angeles County saw an increase in high school dropout rates, while Imperial and Ventura Counties had noticeable reduction.



Air quality in the region also improved significantly in the 1990s.

What could we learn from assessing our region's performance during the 1990s and 2001? The new demographics and the new economy are the two driving forces that have been shaping the performance of our region. It is important to note that the immigrant population, after they have settled longer in the region, tend to have gradual improvements in the socioeconomic well-being (see Figure 6a page 94). However, even after 20 years of improvements, the immigrant

population still lags behind the native-born population in their socioeconomic well-being. A critical challenge for the region is to find ways to nurture and to accelerate the upward mobility process for residents with lower socioeconomic standing.

It is also clear that various aspects of the socioeconomic well-being tend to change in the same direction. While a higher education will enable higher income, people with lower income generally have less educational opportunities to pursue. While homeownership facilitates the creation of household wealth, a household with little wealth cannot afford owning a home. A holistic and coordinated regional approach to improve the socioeconomic well-being of Southern Californians will be essential.

POPULATION

Growth Characteristics

During 2001, Southern California's population grew by approximately 350,000 to a total of just over 17 million people (Figure 1). The rate of the region's population growth was a little faster than that of the state. Within the region, Riverside County had the fastest growth rate of 3.8 percent while Los Angeles County had the largest population increase of 170,000. *The region's population increase of 350,000 in 2001 was higher than the average annual increase for any decade since 1950* and well above the average annual increase of approximately 190,000 during the 1990s (see Figure 1a page 92).

The geographical distribution of population growth within the region has changed significantly since 1950 (Figure 2). Over the years, the Inland Empire (Riverside and San Bernardino Counties) has consistently increased its share of the region's total population growth. From 1950 to 1960, the Inland Empire attracted less than 13 percent of the region's growth. However, during the 1980s and 1990s, the population increase in the Inland Empire accounted for approximately 34 percent of the region's growth. Since 1980, the Inland Empire has been the fastest growing area in California.[1] Conversely, since 1950, the population growth share of Los Angeles and Orange Counties has declined from 84 percent to less than 60 percent.

Population growth in the region came from three sources: natural increase (excess of births over deaths), net domestic migration, and net foreign immigration. *During the 1990s, the relative contributions among these three sources of population growth also changed significantly*

Figure 1

Population in the Region

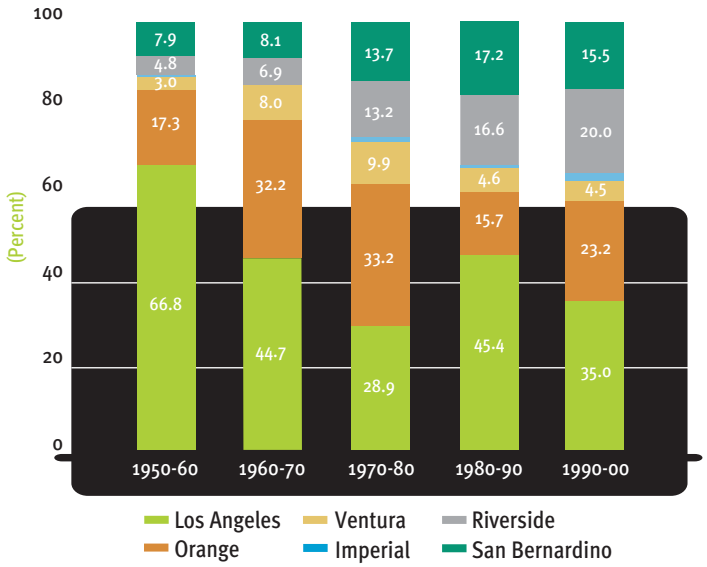
(000)

County	1990	2000	2001	2002	2001-02 Increase Number	2001-02 Increase Percent
Imperial	109.3	142.3	148.3	150.8	2.5	1.7
Los Angeles	8,863.1	9,519.3	9,653.9	9,824.8	170.9	1.8
Orange	2,410.5	2,846.2	2,880.2	2,939.5	59.3	2.1
Riverside	1,170.4	1,545.3	1,583.6	1,644.3	60.7	3.8
San Bernardino	1,418.3	1,709.4	1,741.1	1,783.7	42.6	2.4
Ventura	669.0	753.1	765.2	780.1	14.9	1.9
REGION	14,640.8	16,516.0	16,772.3	17,123.2	350.9	2.1
California	29,760.0	33,871.6	34,385.0	35,037.0	652.0	1.9

Source: 1990 and 2000 Census. Data in 2001 and 2002 are based on the California Department of Finance annual January 1st estimates

Figure 2

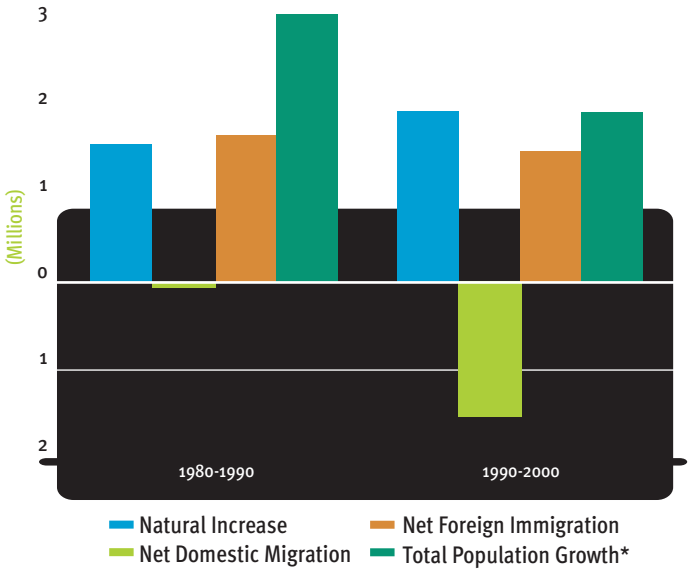
Population Growth Share by County



Source: US Census Bureau

(Figure 3). A defining feature of demographic changes in Southern California during the 1990s was the large number (1.5 million) of net domestic out-migration, primarily due to the severe recession which occurred from 1990 to 1993. This magnitude of net domestic out-migration was the largest in the region's history. During the 1980s, the region experienced only a very minor net domestic out-migration (about 28,000). Prior to 1980, net domestic in-migration had always been an important component for population increase in the region.[2] During the 1990s, natural increase became the largest component of Southern California's population growth, partly due to the higher rate of births among the foreign-born population in the region.

Figure 3
Population Growth by Component



Total Population Growth = Natural Increase + Net Domestic Migration + Net Foreign Immigration

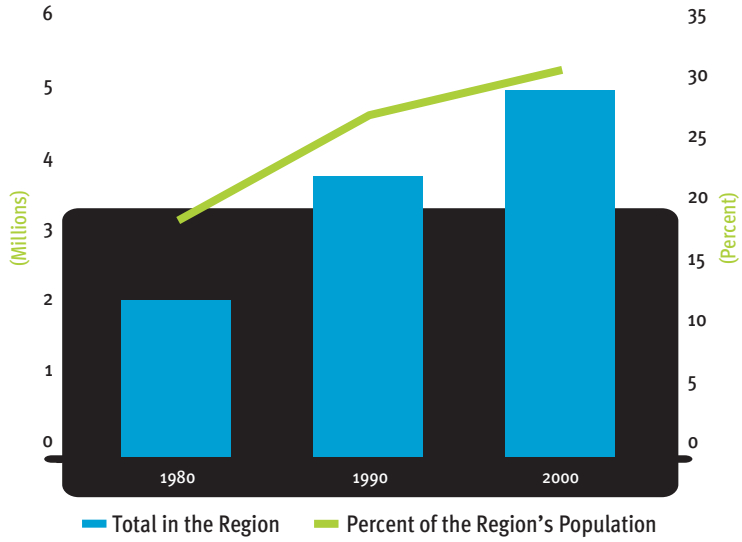
Source: California Department of Finance

Within the region, however, net domestic out-migration during the 1990s (about 1.5 million) originated almost exclusively from Los Angeles County (see Figure 3a page 92). It is important to note that Riverside was the only county where net domestic migration was the largest component of growth, whereas natural increase was the primary growth factor throughout the rest of the region.

Foreign-Born Population

The region's foreign-born population increased by 3 million between 1980 and 2000, from 2.1 million to 5.1 million (Figure 4). *Hence, the majority (almost 60 percent) of the region's foreign-born population arrived within the last two decades.* In 2000, almost one out of every three Southern Californians (31 percent) was born in a foreign country, which is an increase from 27 percent in 1990 or 19 percent in 1980. In

Figure 4
Foreign-Born Population

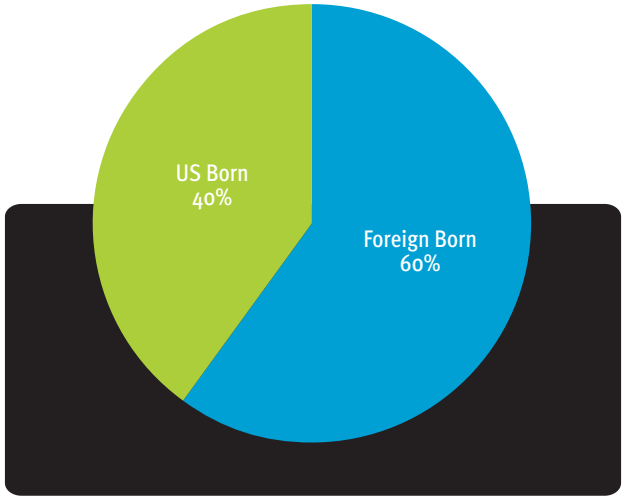


Source: US Census Bureau

addition, less than half (48 percent) of Southern Californians were born in California (see Figure 4a page 93). Within the region, foreign-born residents are heavily concentrated in Los Angeles County, making up about 3.5 million or 70 percent of the region's total foreign-born residents (see Figure 4b page 93, also see Map 2 page 15 on Foreign-Born Population in 2000).

Nationally, foreign-born residents reached the historical high of about 31 million in 2000, which was about 11 percent of the U.S. population.[3] *In 2000, the region had the highest percentage of its population being foreign-born than any other large metropolitan region in the country* (see Figure 69 page 75). About one in every six foreign-born residents in the U.S. lives in Southern California.

Figure 5
Foreign-Born Population – Share of Population Growth
1990-2000



Note: The same growth shares also apply to the 1980-1990 decade
Source: 1990 and 2000 Census

Figure 6
Characteristics of Domestic Outmigrants vs. Foreign Immigrants

	Domestic Outmigrants*	Foreign Immigrants*
Median Age	31	25
High School Graduate and Higher	81%	46%
Median Household Income	$28,000	$21,000
Household Size	2.6	4.0
Renters	57%	87%

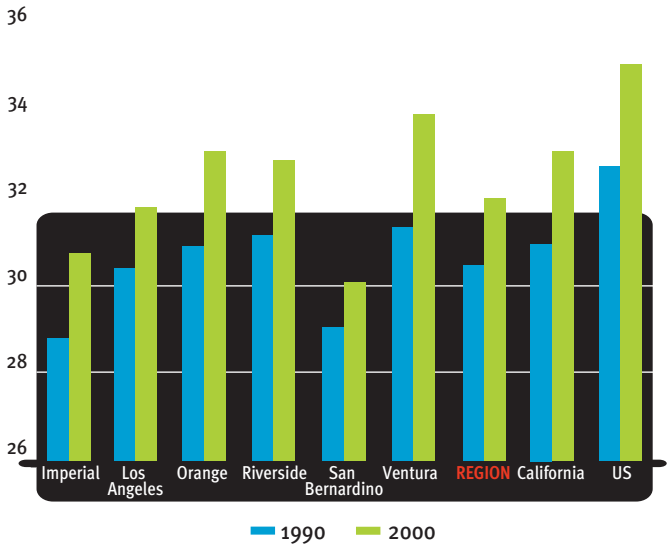
**Left or entered into the SCAG Region during 1985-1990*
Source: 1990 Census PUMS (5% Sample)
SCAG, 1995. Migration in the Southern California Region

During the 1990s, almost 60 percent of the region's population growth was due to the increase in foreign-born population (Figure 5). Foreign-born residents, overall, tend to have notably different demographic, socio-economic and housing characteristics than U.S.-born residents. When compared with domestic outmigrants, foreign-born residents on average are younger, have less education and lower household income, and live in larger households in rental housing (Figure 6).[4] It is important to note the significant difference between domestic outmigrants and foreign-born immigrants in educational attainment. While 81 percent of the domestic outmigrants completed at least a high school education, only 46 percent of the recent immigrants were able to achieve the same. *Because of the significant and increasing share of foreign-born residents, the overall demographic and socioeconomic characteristics of the region have been increasingly influenced by its foreign-born residents.*

Age Characteristics

Between 1990 and 2000, the region's population aged at a slower pace than either the state or the nation (Figure 7). *In 2000, based on the median age, the region had an overall younger population than the state, which was already younger than the nation as a whole.* Within the region, there were significant differences among the counties as to the median age. For example, San Bernardino County had the youngest median age (30), almost four years younger than that of Ventura County. Every county in the region had a younger median age than that of the nation, and only Ventura County had an older median age than the state as a whole. Among the nine largest metropolitan regions in the country, Southern California was the second youngest in terms of median age (see Figure 68 page 74).

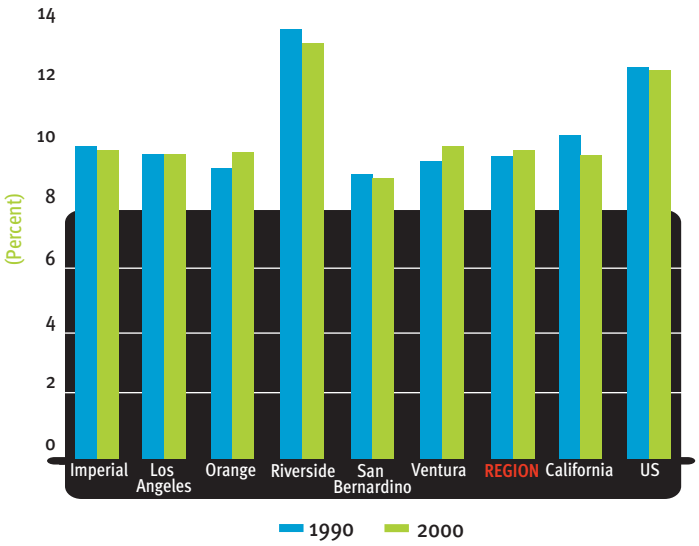
Figure 7
Median Age



Source: 1990 and 2000 Census

From 1990 to 2000, the percentage of the region's senior population aged 65 years or over increased only slightly to 10 percent (Figure 8). This was well below the national rate of over 12 percent but a little higher than the state rate of 9.7 percent. In 2000, the senior population in the region totaled 1.7 million, an increase of almost 220,000 from 1990.[5] Within the region, only Riverside County had a higher rate of senior population than the nation in 2000, with San Bernardino County having the lowest rate.

Figure 8
Persons 65 Years or Over



Source: 1990 and 2000 Census

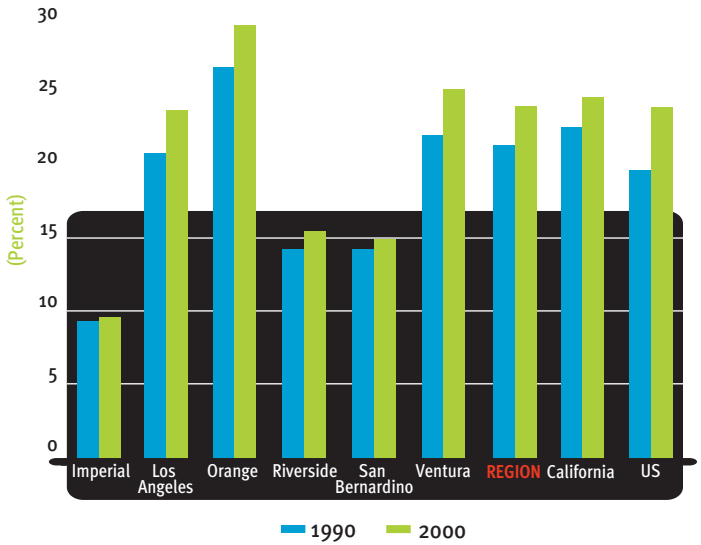
Educational Attainment

Educational attainment is perhaps the most important leading indicator for an individual's lifetime economic opportunities. Furthermore, a substantial part of the growth of the economy is attributable to increased education. Higher educational attainment correlates strongly with higher income levels and lower levels of poverty. In an increasingly information and knowledge-based society, education is becoming the key for improvements in an individual's economic and social well-being.

Educational attainment could be measured by the percentage of persons 25 years and over with high school or bachelor's degrees. The region ranked poorly in both measures in 2000 compared to other metropolitan regions. *As to the attainment of bachelor's degrees or higher, the region ranked eighth among the nine largest metropolitan regions in the country in 2000. In addition, the region ranked last as to the attainment of a high school diploma or higher* (see Figures 71 and 72 page 76).

By both measures, the region also had a lower educational attainment than California in 1990 and 2000 (Figures 9 and 10). Within the region, there was a pattern of significant disparity among the six counties as to educational attainment. As to the attainment of bachelor's degrees or higher, every county in the region made progress during the 1990s. Orange and Ventura Counties were the only two counties in the region with higher educational attainment than the state as a whole. There were also significant differences between the coastal counties (Orange, Ventura and Los Angeles) and inland counties (Riverside, San Bernardino and Imperial). There were much higher disparities in the population with bachelor's degrees than in the population with a high school diploma. (See Map 3 page 16 on the educational attainment for persons without a high school diploma in 2000.)

Figure 9
Educational Attainment
Bachelor's Degree or Higher*



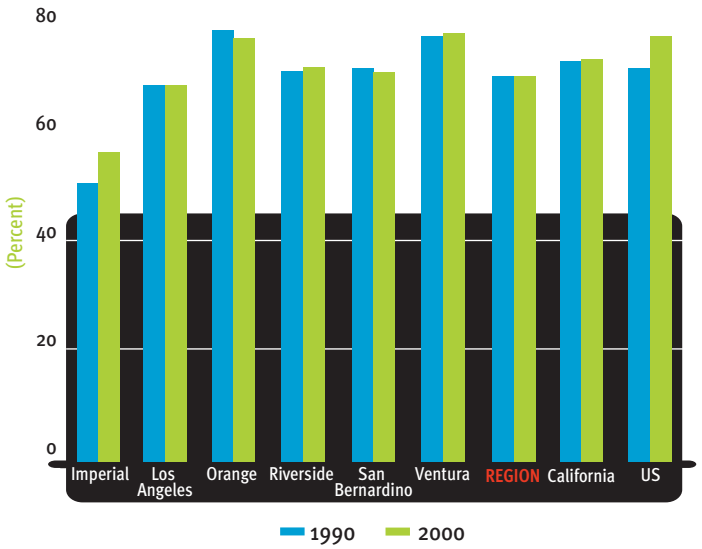
*Percent of persons 25 years and over
Source: 1990 and 2000 Census

Between 1990 and 2000, the percentage of persons 25 years and over with a high school diploma or higher stayed relatively unchanged for most counties in the region. Orange and Ventura Counties continued to take the lead within the region. It should be noted that Imperial County made the most improvement during the 1990s.

Figure 10

Educational Attainment

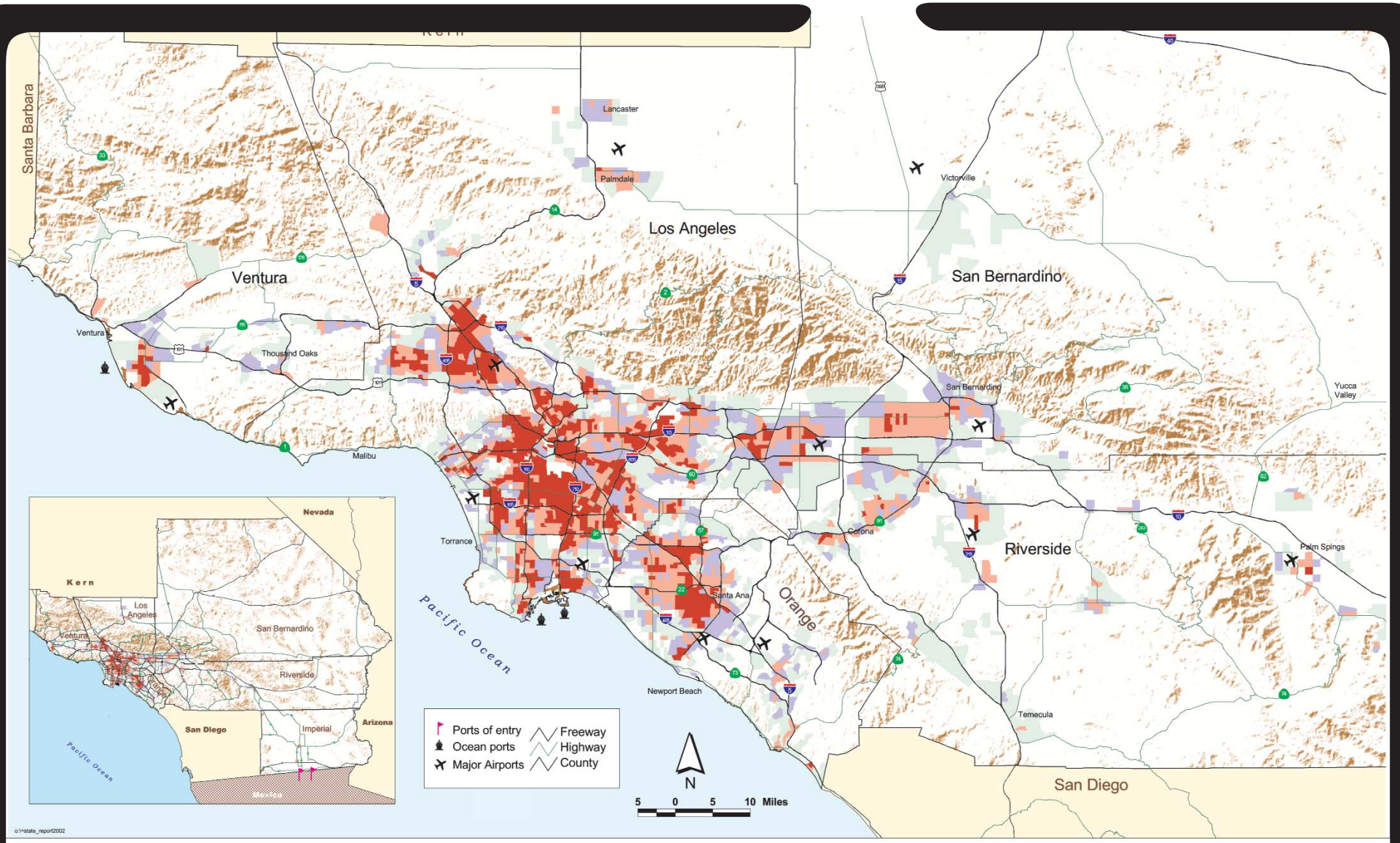
High School Diploma or Higher*



*Percent of persons 25 years and over

Source: 1990 and 2000 Census

Historically, education has paid off. In 1999, the average annual earning nationally was $18,900 for high school dropouts, $25,900 for high school graduates and $45,400 for college graduates. Within the region, Orange and Ventura Counties led in educational attainment, particularly for college graduates. They are also the two counties with the highest levels of per capita income and lowest levels of poverty in the region (see Economy Section Figures 23 and 27).



Foreign-Born Population per Square Mile by Census Tract

0 - 20
21 - 80
81 - 200
201 - 600
Over 600

Source: Census 2000 SF3
Thomas Bros. Network

Foreign-Born Population

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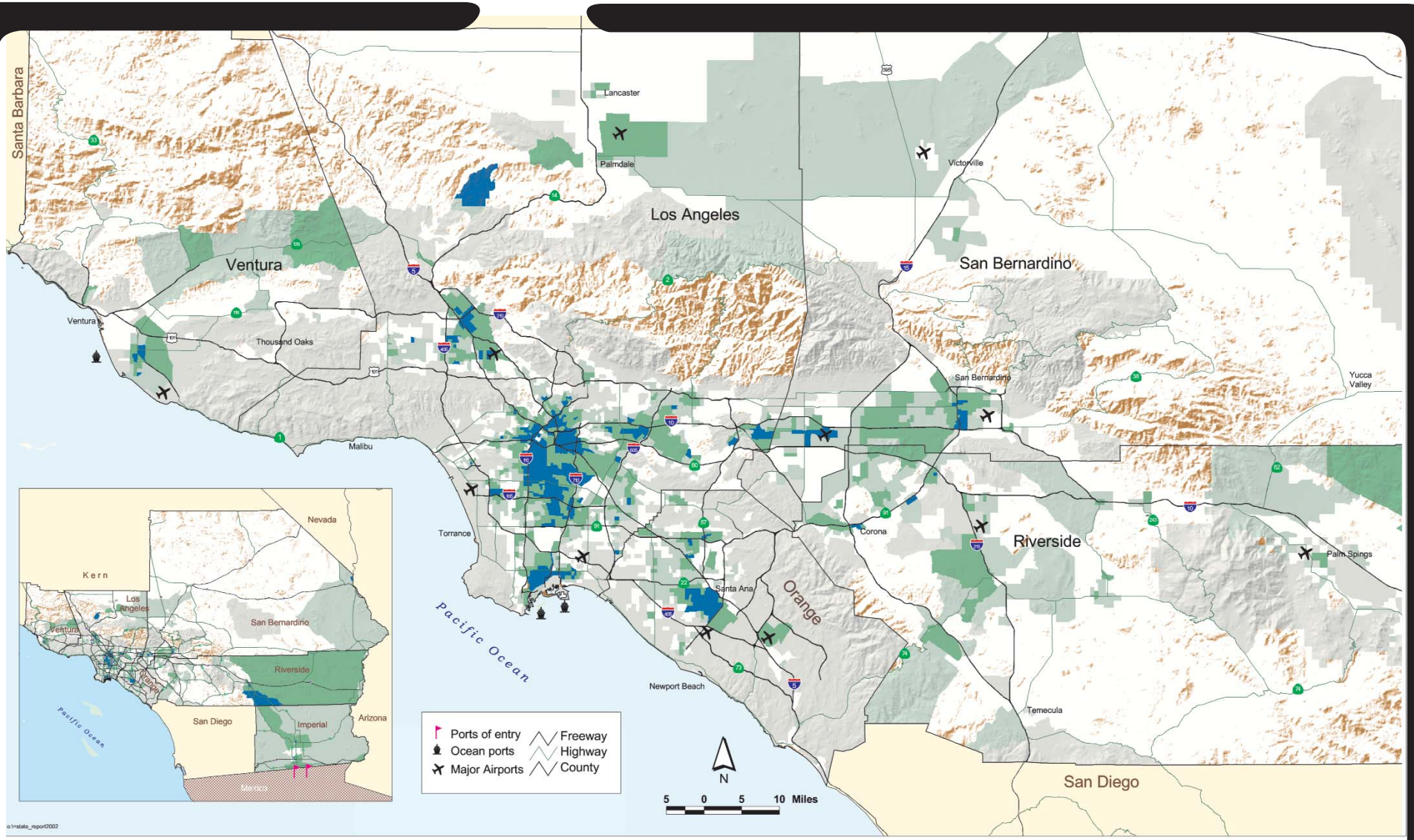
Map 2



Educational Attainment

Persons Without a High School Diploma

SOUTHERN CALIFORNIA ASSOCIATION of GOVERNMENTS

Map 3

Total employment in the region reached close to seven million in 2001

THE ECONOMY

Employment

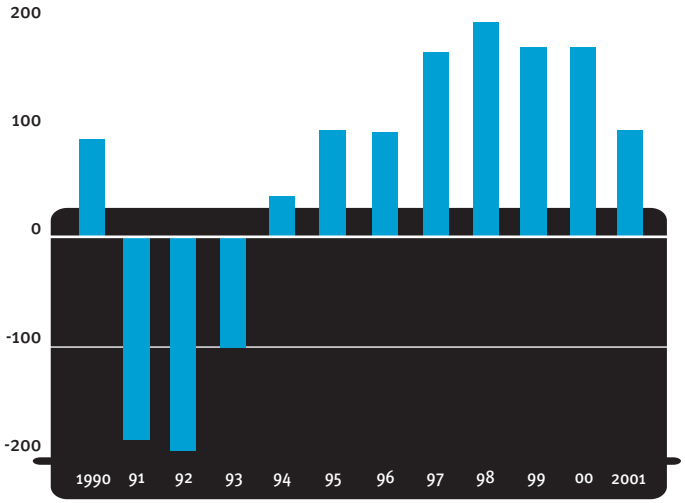
Why is this important?

The number and types of employment, in large part, determine a region's economic activities and well-being. For example, income generated through employment accounts for about 75 percent of the total personal income in the region.[1]

Figure 11

Wage and Salary Employment

Change from Previous Year (000)



Source: California Employment Development Department with 2001 prelimary data

How are we doing?

While every county in the region managed to increase its total employment in 2001, the job growth slowed down from the previous year (Figures 11 and 12). There were approximately 100,000 more wage and salary jobs in 2001 than in 2000. *The modest employment increase throughout the region was actually quite impressive during a recession year when national employment fell more than 760,000 in 2001.[2] This is also in sharp contrast to the last recession when the region suffered employment loss in three consecutive years (1991 to 1993), while the national recession lasted only one year.*

Figure 12

Wage and Salary Employment

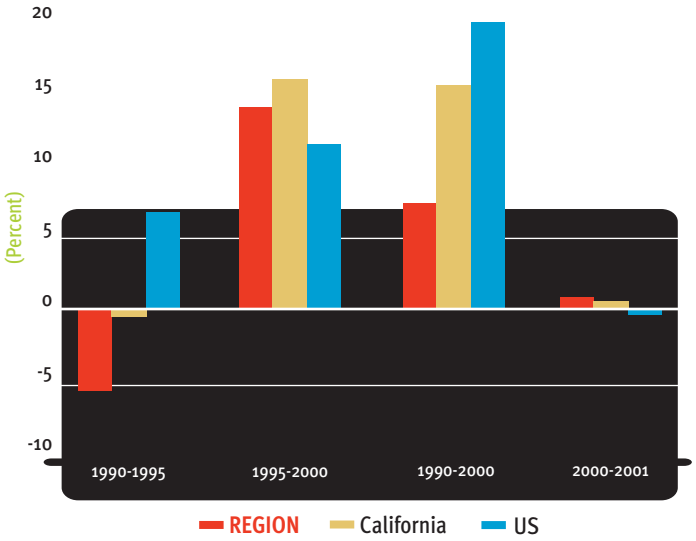
(000)

County	1990	2000	2001	1990-2000 Number	1990-2000 Percent	2000-2001 Number	2000-2001 Percent
Imperial	44.9	50.4	51.6	5.5	12	1.2	2.4
Los Angeles	4,147.1	4,079.8	4,102.1	-67.3	-2	22.3	0.5
Orange	1,178.9	1,396.5	1,425.4	217.6	18	28.9	2.1
Riverside/San Bernardino	735.2	1,010.1	1,049.1	274.9	37	39.0	3.9
Ventura	247.1	294.4	302.5	47.3	19	8.1	2.8
REGION	6,353.2	6,831.2	6,930.7	478.0	8	99.5	1.5
California	12,863.4	14,896.6	15,084.6	2,033.2	16	188.0	1.3

Source: California Employment Development Department

Total employment in the region reached close to seven million in 2001 (Figure 12). The increase in 2001 was significantly smaller compared with the region's annual increases in the previous four years (Figure 11). Except for Imperial County, the counties in the region grew at a slower rate than in the 1999-2000 period (see Figure 12a page 94). Factors contributing to a slower employment growth in 2001 included, among others, a sharp slowing of the U.S. economy, a continuing declining of the region's non-durable manufacturing sector, lower consumer confidence and a sharp decline in travel and tourism expenditures worsened by the September 11 terrorist attack.[3]

Figure 13
Employment Change in the SCAG Region



Source: California Employment Development Department, US Bureau of Labor Statistics

Between 1990 and 1993, the region suffered a net loss of almost half a million jobs. The driving force for this decline began in 1988 with the massive defense spending cut after the end of the Cold War in 1988, which was followed by the most severe recession since the Great Depression of the 1930s. During the second half of the decade, the region's total employment grew at 14 percent, even a little faster than the nation. *However, the region's total employment growth between 1990 and 2000 was only 8 percent, or only half of the state's 16 percent growth rate and well below the nation's 20 percent growth rate* (Figure 13).

Within the region, there were also significant variations among the counties for employment growth. In Los Angeles County, because of the tremendous loss of about 400,000 jobs from 1990 to 1995, despite the significant growth since 1995, the 2000 total employment for the County was still 67,000 jobs lower than its 1990 level (see Figure 13a page 96). In sharp contrast, the Inland Empire experienced a phenomenal employment growth rate of about 37 percent with 275,000 net new jobs, followed by Ventura (19 percent or 47,000 net new jobs) and Orange Counties (18 percent or 220,000 net new jobs). It is important to note that the Inland Empire Counties grew throughout the recession and have not experienced any single-year employment loss since 1990 (see Figure 12a page 94).

Sectors

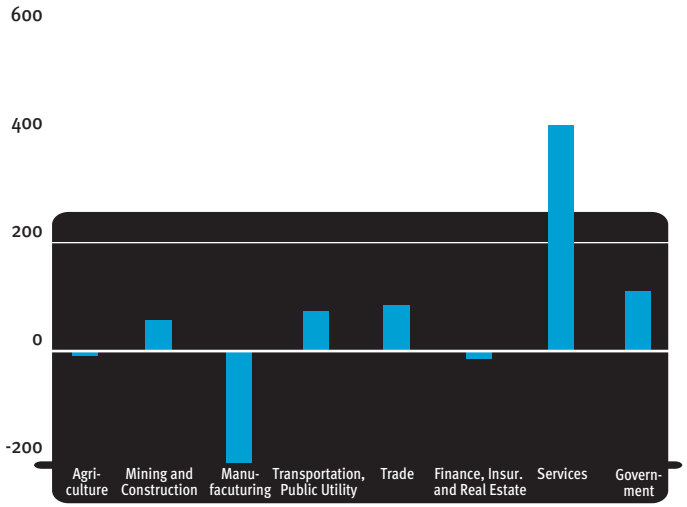
Why is this important?

Different economic sectors have different levels of wages as well as future growth potential in employment and income. Compositions of occupation also vary among the different economic sectors. A more diversified regional economy will be less vulnerable to turbulent environments, such as recessions or disasters.

How are we doing?

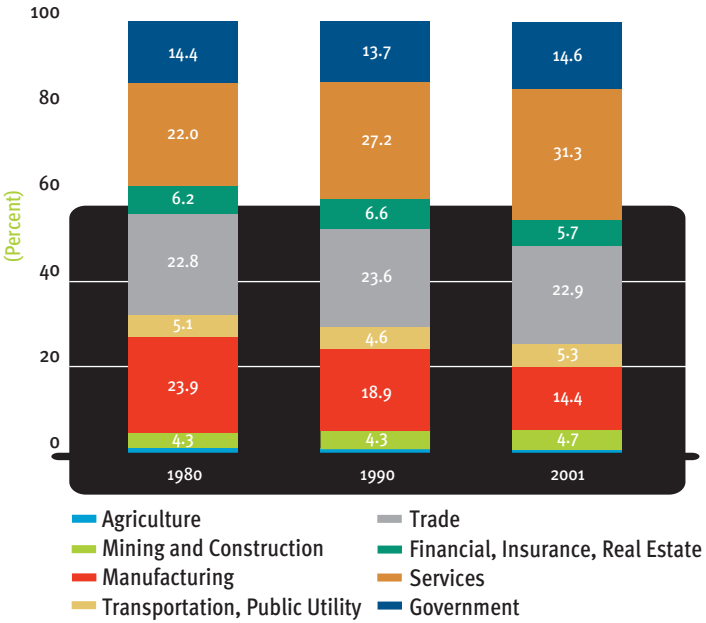
Since 1990, the region has added almost 450,000 service sector jobs while losing about 200,000 manufacturing jobs (Figure 14). During the same period, four other sectors have added jobs to the region. The government sector increased by approximately 140,000 jobs, followed by the trade sector with 90,000 additional jobs, transportation and public utilities with 70,000 new jobs, and construction and mining with 50,000 more jobs. In addition to the manufacturing sector, the agricultural and finance, insurance and real estate (FIRE) sectors also experienced a minor decline, losing about 4,500 and 20,000 jobs respectively.

Figure 14
Employment Change by Sector
1990-2001 (000)



Source: California Employment Development Department

Figure 15
Employment by Sector

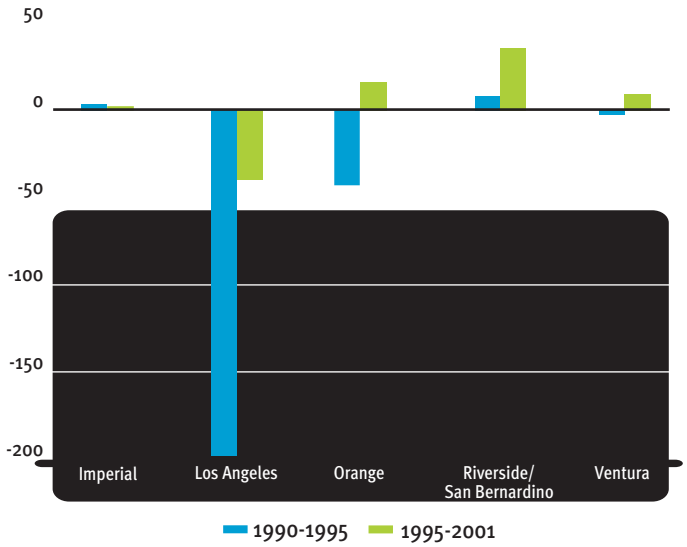


Source: California Employment Development Department

During the past two decades, the region's employment experienced significant changes, particularly in the service and manufacturing sectors. In 1980, the manufacturing sector had the highest employment share among all sectors, about 24 percent, and the service sector had about 22 percent of the employment share (Figure 15). However, by 2001, the share of service employment increased to about 31 percent while the manufacturing share fell sharply to about 14 percent.

The manufacturing sector consists of durable goods and non-durable goods subsectors. *The net loss of about 200,000 manufacturing jobs in the region since 1990 occurred predominantly in Los Angeles County for durable goods* (Figure 16). Furthermore, the majority of the 200,000 manufacturing jobs lost in Los Angeles County were defense or aerospace related, including more than 70,000 in the aircraft/spacecraft/missiles category, 40,000 in instruments, and another 30,000 in electronic equipment and industrial machinery.[4] Since 1990, Orange County has experienced a net loss of 19,000 manufacturing jobs (23,000 for durable goods), while Riverside and San Bernardino Counties gained about 39,000 manufacturing jobs (25,000 for durable goods). From 1995 to 2001, only Los Angeles County still experienced some decrease while all the other five counties gained manufacturing jobs.

Figure 16
Manufacturing Employment Change by County
(000)



Source: California Employment Development Department

The significant decline in defense and aerospace manufacturing related employment during the 1990s was more than offset by dramatic growth in service-oriented employment. During this decade, the region's employment increased about 210,000 in business services, 150,000 in direct international trade services, and 60,000 each in health services and motion pictures/television production. Within the manufacturing sector, a significant increase of immigrant workers contributed to an almost 20,000 increase of apparel and textile employment during the 1990s, contrary to the declining trend at the national level.[5] Those expanding industries in Southern California together grew by more than 500,000 jobs during the 1990s. In addition, the majority of these jobs were created by small and medium-size companies. *By the end of the 1990s, the region's economic base was much more diversified than it was at the beginning. This economic diversification also contributed to the renewed resilience of the region's economy as it continued growing through the 2001 national recession.*

Unemployment Rate

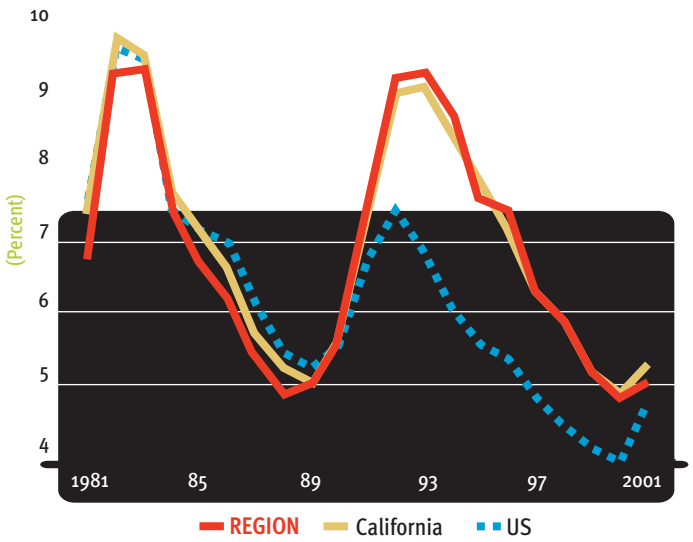
Why is this important?

Unemployment significantly impacts the economic and social well-being of individuals and families. People with higher unemployment rates will naturally have higher poverty rates. Places with higher unemployment rates would require higher levels of public assistance.

How are we doing?

Throughout most of the 1990s, the region's unemployment rates have been significantly higher than the national average. This is a reversal of the trend in the 1980s during which the region stayed consistently just below the national average (Figure 17). Since the 1990-93 recession, the gaps of unemployment rates between the region and the nation have been gradually reducing.

Figure 17
Unemployment Rate

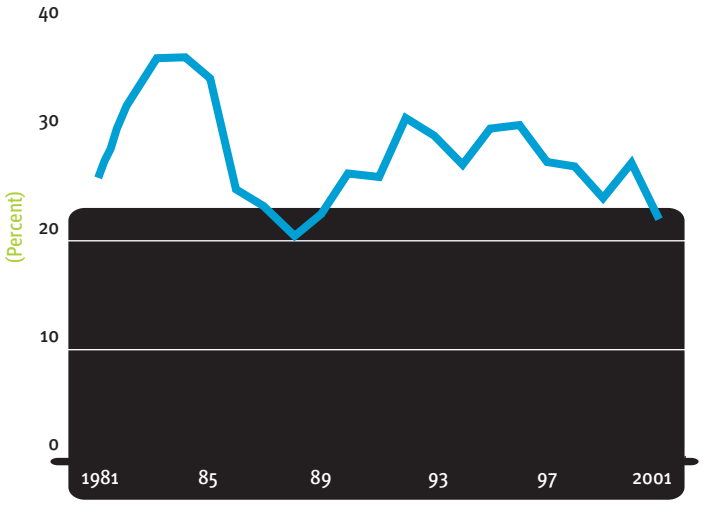


Source: California Employment Development Department

The region's unemployment rate increased only slightly in 2001 from 4.9 to 5.1 percent, a small increase compared to the nation and the state. Nationally, the unemployment rate rose from 4 to 4.8 percent while California's rate increased from 4.9 to 5.3 percent. *Hence, the 2001 recession had less impact on the unemployment rate in the region than the state or the nation.* One reason is that the region's employment base was more diversified in 2001 than in 1990. In addition, the declining sector slowing national growth was business investment, particularly information technology equipment and software, which is more concentrated in northern California.[6]

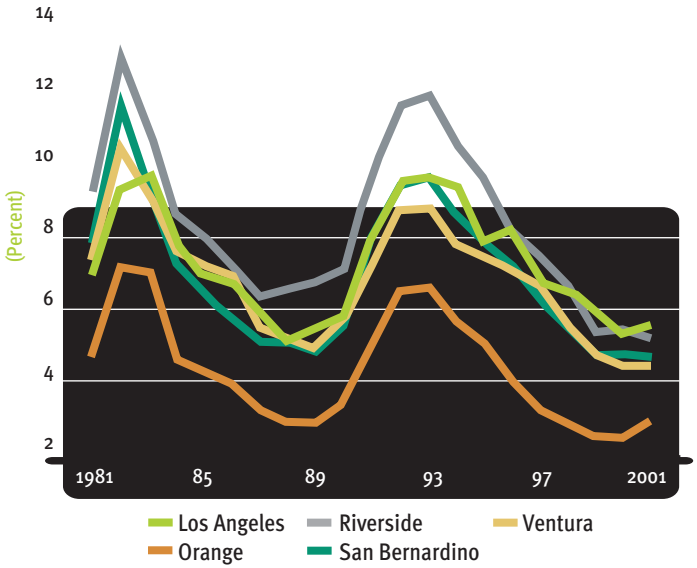
Unemployment rates vary significantly among different racial, ethnic and age groups. Recessions also tend to have a greater impact on minorities than on the White population. *African American and Hispanic populations have consistently had much higher unemployment rates than the Non-Hispanic White and Asian populations.* In 2001, the statewide unemployment rate was 8.8 percent for blacks and 7.2 percent for Hispanics, both significantly higher than the 5.3 percent for Asians and 4.2 percent for Non-Hispanic Whites.[7] Youths aged 16 to 19 experienced a 16.4 percent unemployment rate in 2001.[8]

Figure 18
Unemployment Rate – Imperial County



Source: California Employment Development Department

Figure 19
Unemployment Rate by County



Source: California Employment Development Department

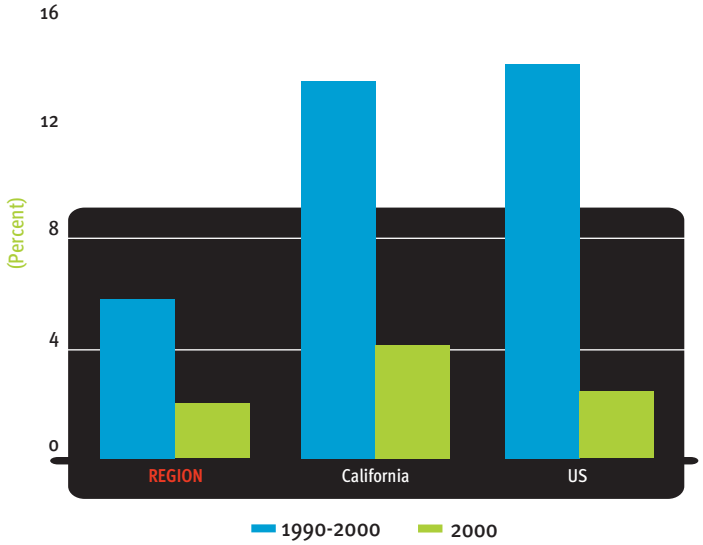
Among the six counties in the region, Imperial County continued to have an unemployment rate higher than 20 percent in 2001 (Figure 18). Only Los Angeles and Orange Counties experienced increases in unemployment rates in 2001 (Figure 19). For the past two decades, Orange County has consistently maintained the lowest unemployment rate in the region. Los Angeles, San Bernardino and Ventura Counties maintained similar unemployment rates among themselves throughout the 1980s and 1990s. (See Map 4 page 31 on unemployed persons in 2000.)

Income

Why is this important?

■ ■ Per capita income is one of the most important indicators of economic well-being. An increase in per capita income is generally associated with improving social and economic indicators such as reduced poverty and an increase in educational attainment. A higher income level not only provides more resources for current consumption but also enhances future opportunities. An area's income level also provides an indication of its ability to provide services to its population. ■ ■

Figure 20
Growth of Personal Income Per Capita
1990-2000



Source: US Bureau of Economic Analysis

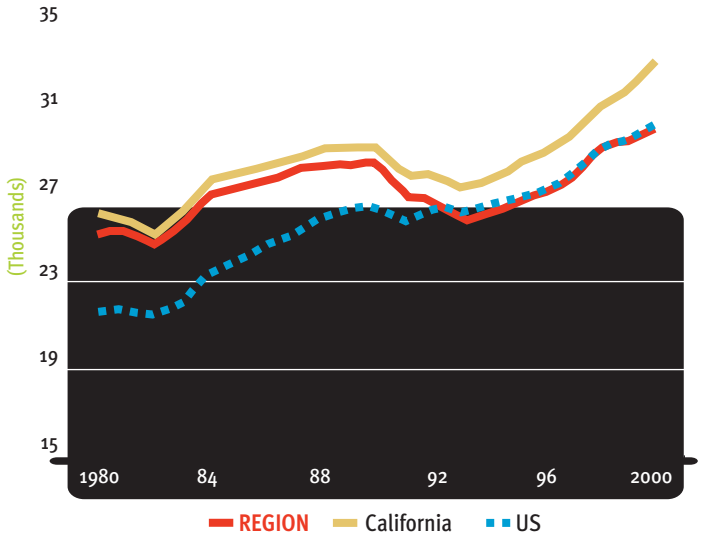
How are we doing?

In 2000, the region's per capita income increased by only about 2 percent from the previous year to $29,325 while the state's per capita income increased to $32,149, a growth of 4 percent (Figures 20 and 21).

For the past 20 years, the region has been lagging behind both the state and the nation in growth of per capita income. For example, in 1980, the region's per capita income was about $3,400 higher than the national average. However, since 1993, the region's per capita income has fallen just below the national average (Figure 21). *Also since 1990, the gap between the region and the state in per capita income has been gradually widening. During the 1990s, income grew at about 6 percent in the region, well below the approximately 14 percent for the state and the nation.* The substitution of lower-wage service jobs for higher-wage manufacturing jobs lost led the region's overall wage level less competitive compared to the rest of the state (see Figure 22).

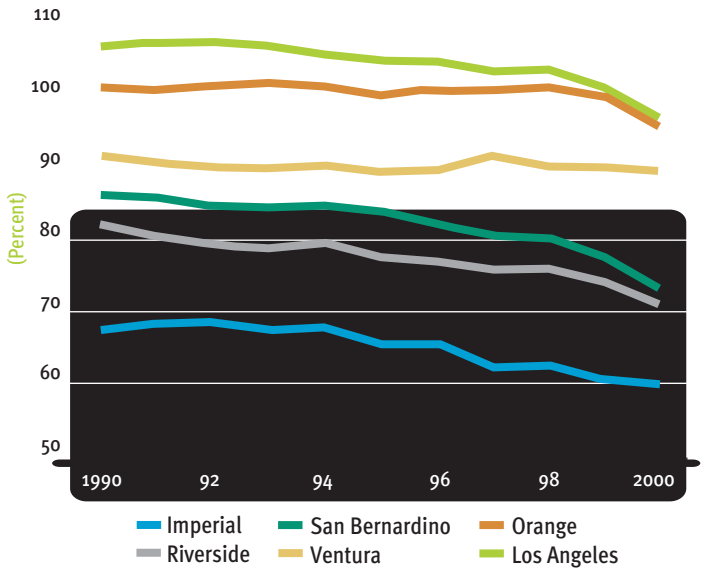
Within the region, Orange and Ventura Counties continued to have higher per capita incomes than the rest of the region (Figure 23). Between 1990 and 2000, Orange and Ventura Counties and, to a less extent, Los Angeles County achieved a significant increase in their per capita income. Riverside and San Bernardino Counties achieved little gains in the decade, while Imperial County suffered a loss between 1990 and 2000. In 2000, Orange County was the only county in the region that had a higher per capita income than the state average. *It is also important to note that disparities in per capita income among the six counties have been growing since 1980.*

Figure 21
Real Personal Income Per Capita
(2000 Dollars)



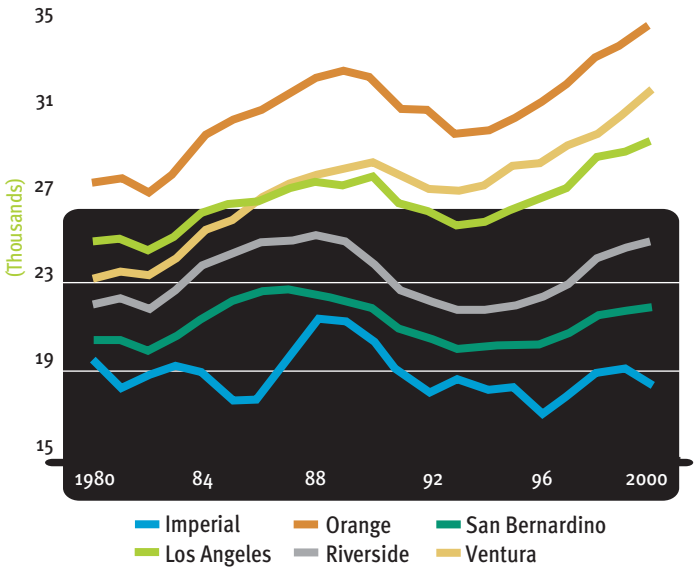
Source: US Bureau of Economic Analysis

Figure 22
Average Payroll Per Job
California = 100%



Source: US Bureau of Economic Analysis

Figure 23
Real Personal Income Per Capita by County
(2000 Dollars)



Source: US Bureau of Economic Analysis

Figure 24
Per Capita Personal Income Ranking Among The 17 Largest Metropolitan Regions in US

	SCAG Region
1970	4th Place
1980	5th Place
1990	7th Place
1995	16th Place
2000	16th Place

Source: U.S. Bureau of Economic Analysis

Figure 25
Per Capita Personal Income Ranking Among 58 California Counties

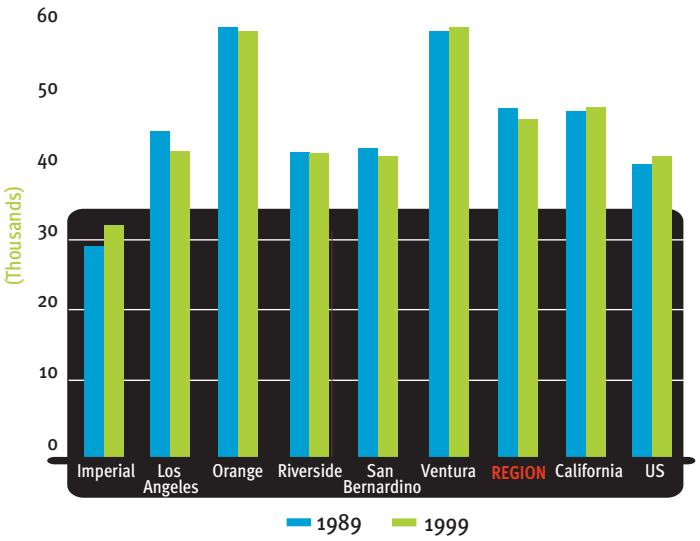
County	1980	1990	1995	2000
Imperial	46	45	51	55
Los Angeles	11	13	17	17
Orange	7	6	7	11
Riverside	28	22	28	28
San Bernardino	38	30	40	43
Ventura	19	12	11	15

Source: US Bureau of Economic Analysis

During the 1990s, Southern California lost ground in per capita income relative to other regions. When comparing per capita income among the 17 largest metropolitan regions in the nation, the region dropped from the fourth highest in 1970 to 16th in 2000 (Figure 24). Among the nine largest metropolitan regions in the nation, the SCAG Region had the lowest per capita income in 2000 (see Figure 73 page 77). Each of the six counties also ranked lower in per capita income among the 58 counties in California in 2000 compared to 1990 (Figure 25). Statewide and national comparisons indicated that the region lost most ground during the first half of the 1990s and was not able to recover during the latter half of the decade.

Median household income declined by more than $1,600 during the last decade, contrary to the improving trends in the state and the nation (Figure 26). Declining median wage, partly due to the disproportionate increase of less educated immigrant workers, contributed to the declining median household income. Within the region, Los Angeles County suffered the largest decline of more than $3,000 in median household income while Imperial County experienced an increase of $2,800.

Figure 26
Median Household Income
(1999 Dollars)



Source: 1990 and 2000 Census

Poverty

Why is this important?

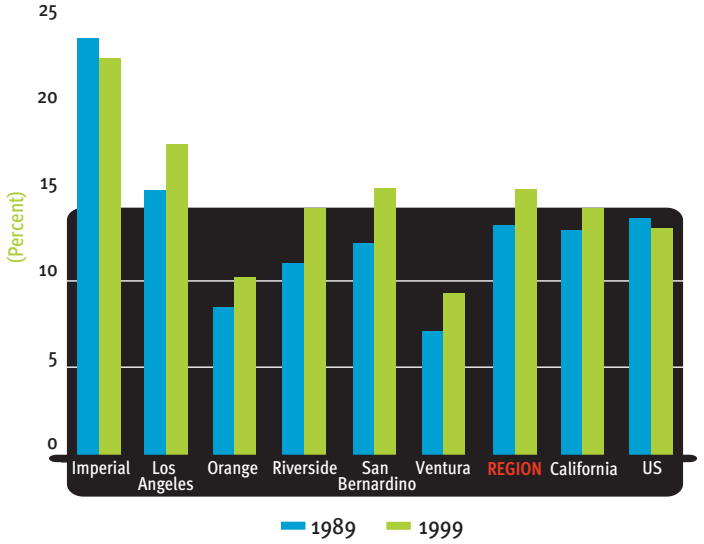
The poverty rate measures the proportion of a population that has an income below the poverty line and therefore lacks the economic resources needed to support a minimum acceptable standard of living.[9] The poverty line is adjusted for family size. Poverty not only results in current economic hardship, but also limits individual's and family's future development opportunities. A higher poverty rate is both a cause, as well as an outcome, of lower educational attainment and higher unemployment rates. The extent of poverty also reflects the need for various kinds of public assistance.

Poverty among children is of particular concern. Poverty in childhood is associated with higher risks for dropping out of school, poor health, teenage pregnancy and long-term economic disadvantage as adults.[10]

How are we doing?

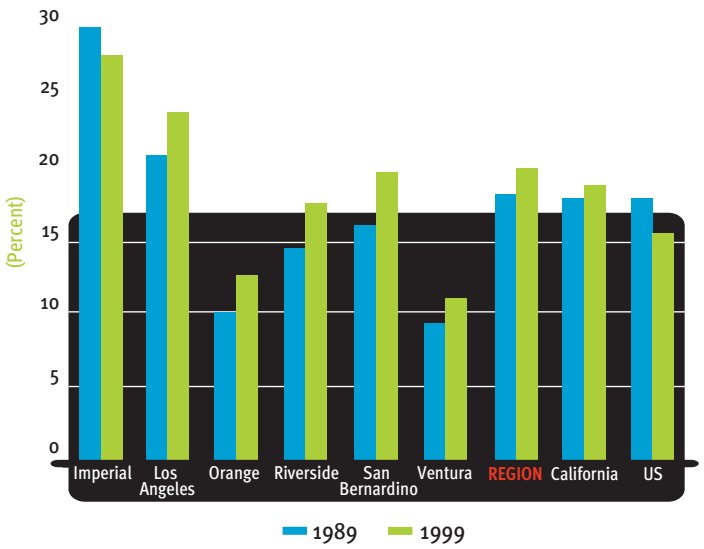
In 1999, over 2.5 million persons were in poverty in the region, an increase of about 650,000 from 1989 (see Figure 27a page 95). A total of over 940,000 children under 18 in the region were in poverty in 1999, an increase of about a quarter million in ten years. *Both the poverty populations of persons of all ages and children under 18 grew significantly faster (about 35 percent for both) than that of the total population (13 percent) from 1989 to 1999.*

Figure 27
Persons in Poverty



Source: 1990 and 2000 Census

Figure 28
Children (under 18) in Poverty



Source: 1990 and 2000 Census

Between 1989 and 1999, the percentages of persons of all ages and children under 18 living in poverty increased in every county in the region (except Imperial County, although Imperial County still had the highest poverty rate) (Figures 27 and 28). *In 1999, close to one in six persons of all ages and one in five children under 18 in Southern California were in poverty, higher than the state and the nation. During the 1990s, poverty rates for both measures increased significantly in the region while decreasing at the national level.* (See Map 5 page 32 on persons in poverty in 1999.)

Imperial and Los Angeles Counties had the highest rate of poverty for both measures within the region, while Ventura and Orange counties had the lowest. For children under 18 in poverty, Riverside and San Bernardino Counties had the largest percentage increase, 63 percent and 51 percent respectively, over the ten-year period.

Among the nine largest metropolitan regions in the nation, the region had the highest poverty rate among persons of all ages as well as children under 18 (see Figures 74 and 75 pages 77 and 78). Unlike Southern California, many of the largest metropolitan regions made improvements in reducing poverty rates during the 1990s, particularly for children under 18.

There is a significant disparity in poverty rates among different racial/ethnic populations. Specifically, statewide data consistently show much higher poverty rates among Hispanics and African Americans than among Asians and Whites during the 1990s.[11] The higher poverty rates of African Americans and Hispanics are in part due to a lower level of educational attainment, lower wages and higher unemployment rates.

Taxable Sales

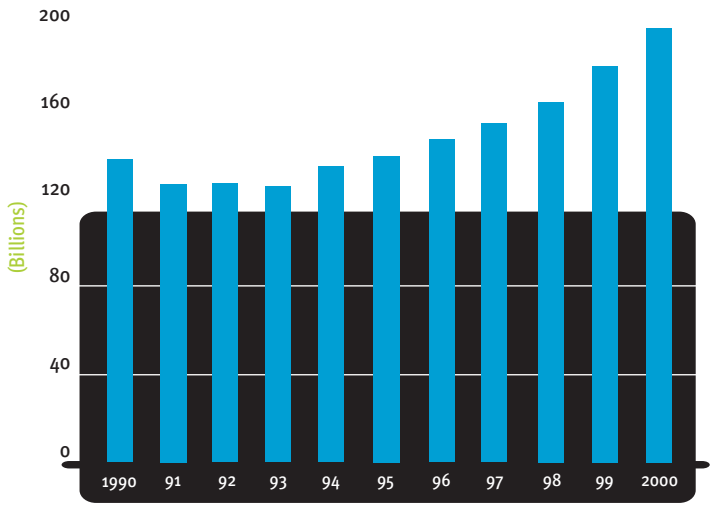
Why is this important?

■ ■ Taxable sales provide important revenue sources for state and local governments and special districts. While employment and income are measures on the production side, taxable sales measure the level of consumption activities. Taxable sales tend to follow closely trends in personal income as well as consumer confidence. ■ ■

How are we doing?

In 2000, taxable sales in California increased almost 12 percent to reach more than $440 billion.[12] The region's taxable sales in 2000 were just below $200 billion, an increase of about $18 billion or 10 percent over

Figure 29
Taxable Sales – All Outlets
Current Dollars



Source: California State Board of Equalization

1999 (Figure 29). However, estimates for the first and second quarters (pre-September 11) in 2001 for the region's taxable sales indicated a significantly slower growth rate over the same period in 2000. *At the state level, preliminary estimates show a 1.2 percent decline in 2001 over the previous year, primarily due to reduced sales during the third and fourth quarters in 2001.*

With about $200 billion taxable sales, the region generated approximately $16 billion in tax revenue for state, counties, cities and special districts in 2000. Of the $200 billion taxable sales, about $130 billion were generated through retail stores, $60 billion through other outlets and $10 billion through business and personal services. Within the retail stores category, automobile related sales generated close to $40 billion, or 20 percent of the total in the region.

All six counties in the region experienced a healthy increase in 2000, with the Inland Empire Counties leading the growth. In addition, both Orange and Los Angeles Counties reached about a 10 percent annual increase for the first time in two decades (see Figure 29a page 96). Los Angeles County, with about 58 percent of the population, had only 54 percent of the region's total taxable sales. Orange County, which has only 17 percent of the population, had close to 23 percent of the region's taxable sales.

International Trade

Why is this important?

■ ■ International trade includes export and import activities that create job opportunities and bring income into the region. Though exporting goods produced in Southern California generates higher net economic benefits for the region, imports could create economic benefits too. The region's role as a major transshipment center linking domestic and global markets is also of national and international significance. ■ ■

How are we doing?

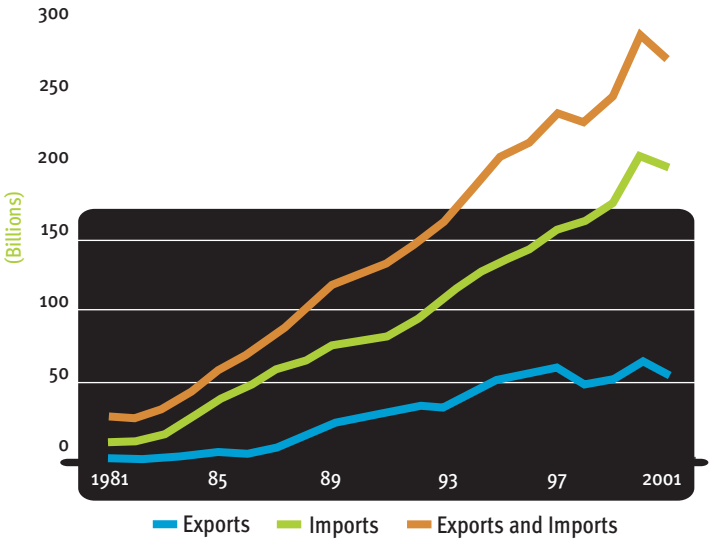
Southern California plays two dominant roles in international trade.[13] *First, it serves as a leading trade center exporting its own goods as well as importing goods for its use. Second, the region also serves as a global transshipment center for the domestic and global markets.* In particular, the region serves as the single largest transshipment center between the most active exporting region, East Asia, and the world's number one source of demand, the United States.[14]

Total trade through the Los Angeles Customs District (LACD) more than doubled between 1990 and 2001, from about $130 billion to almost $270 billion, accounting for about one-eighth of all U.S. international trade flows

(Figure 30). Factors that contribute to the region's dominance in international trade include the region's diversified export-manufacturing base, geographic location with respect to Mexico and Pacific Rim countries, its multi-cultural communities and its first-class international trade infrastructure.

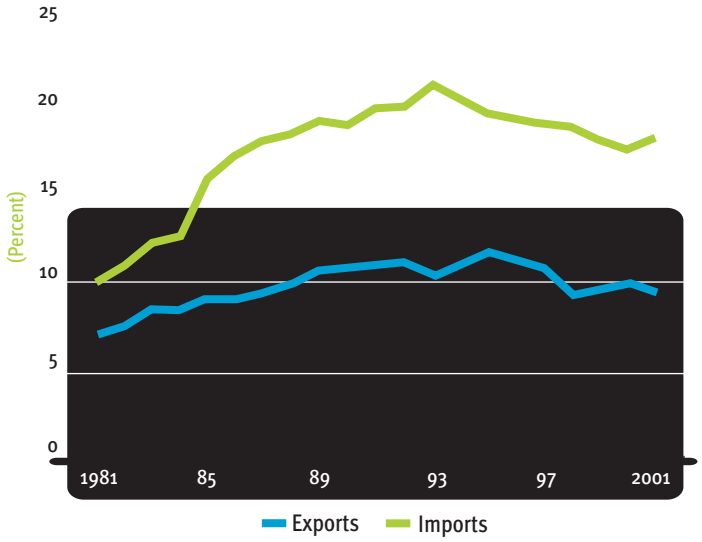
The LACD includes the Ports of Long Beach, Los Angeles and Hueneme, Los Angeles International Airport and McCarran Field. Of the $270 billion total trade, approximately 40 percent consists of exporting goods produced within the region and importing goods to meet the region's demand, for the region's role as a trade center. The remainder, approximately 60 percent, consists of transshipping goods via the region to its final destination, the role as a transshipment center.[15]

Figure 30
Exports and Imports – LA Customs District
Current Dollars



Source: US Census Bureau

Figure 31
Exports and Imports – LA Customs District
Percent of US



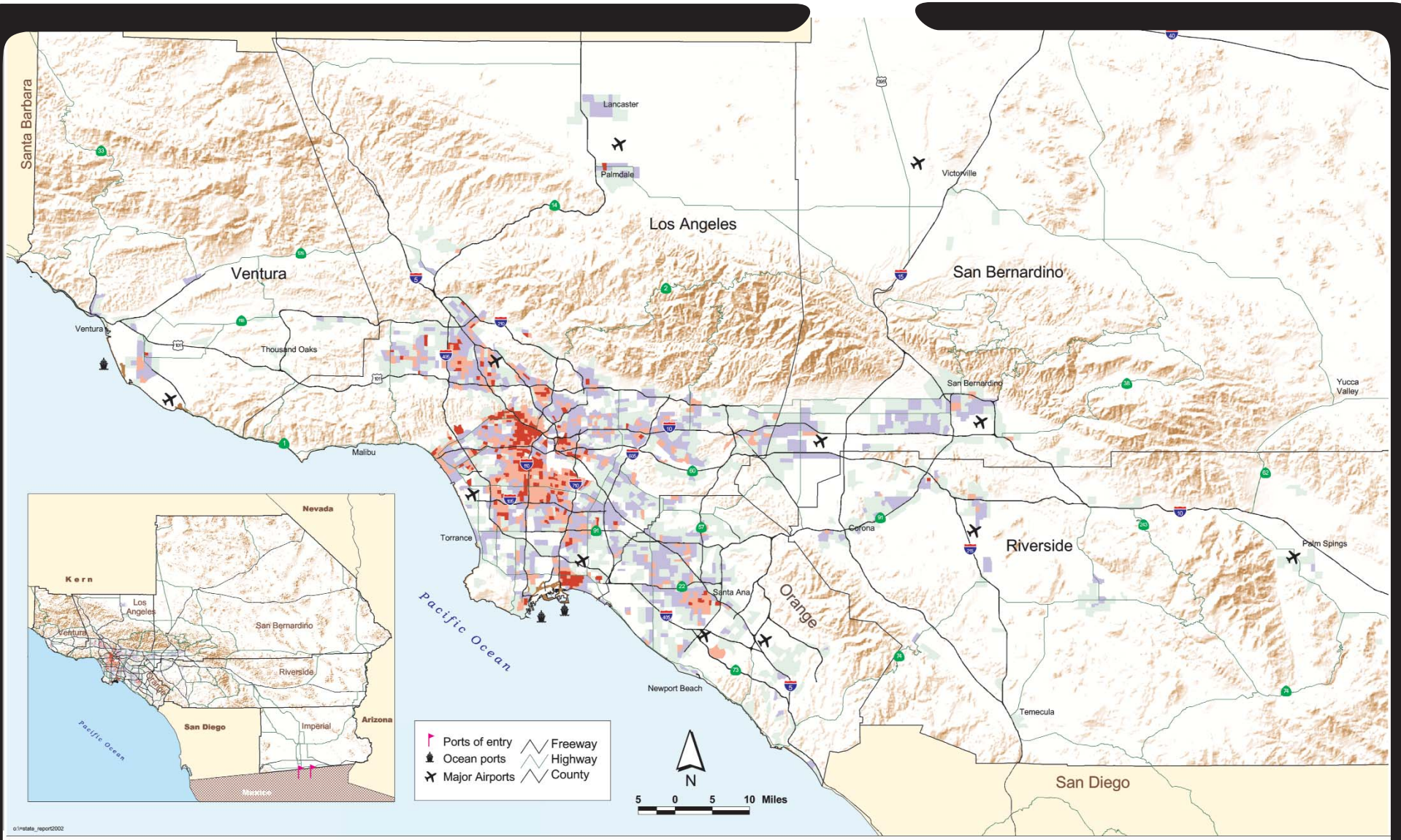
Source: US Census Bureau

In 2001, the LACD experienced a decline in the values of both its exports and imports (Figure 30). Exports fell by about $8 billion to just below $70 billion. Imports also declined for the first time in two decades by $6 billion to about $200 billion. Factors contributing to the decline in international trade activities included recessions in both the U.S. and Mexico and widespread economic weakness in Asia, Europe and Canada.

For a given amount of trade values, exports are far more important to the regional economy than imports, since they generate more jobs and income in the region. Nearly one out of every nine jobs in Southern California is generated through export-related activities, without

including transshipment-related jobs.[16] Since 1995, the LACD's share of U.S. exports has generally been on a declining path (Figure 31). This is partly due to the increased number of manufacturing centers spread around the nation. The top five export sectors in the region consist of transportation equipment, industrial machinery and computers, electric and electronic equipment, scientific instruments and chemical products. The top five countries receiving exports from the region in 2001 included Japan, China, South Korea, Taiwan and Australia.[17]

Imports are a much larger component of Los Angeles' international trade than exports, accounting for almost three quarters of the total trade through LACD in 2001. Import transshipments are the largest single source of demand for direct international trade services. In 2001, the top five countries importing through the LACD were China, Japan, Taiwan, South Korea and Malaysia. The top import commodities through the LACD in 2001 were electronic machinery and motor vehicles.



Unemployed Persons per Square Mile by Census Tract

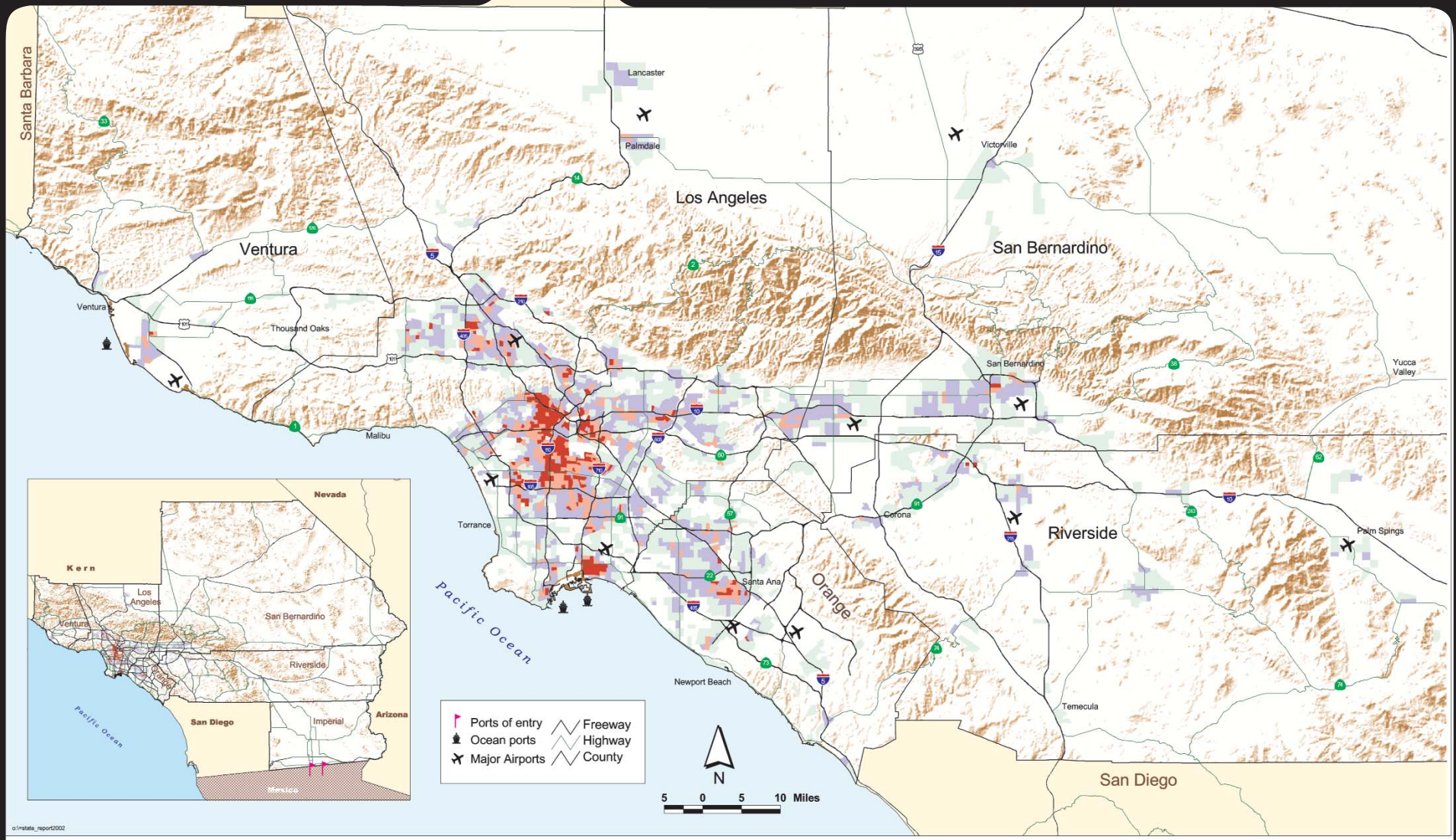
- 0 - 100
- 101 - 250
- 251 - 500
- 501 - 1,000
- Over 1,000

Source: Census 2000, SF3
Thomas Bros. Network

Unemployed Persons

SOUTHERN CALIFORNIA ASSOCIATION of GOVERNMENTS

Map 4



Persons Below Poverty per Square Mile by Census Tract

0 - 300
301 - 1,000
1,001 - 3,000
3,001 - 6,000
Over 6,000

Source: Census 2000, SF3
Thomas Bros. Network

PERSONS IN POVERTY

SOUTHERN CALIFORNIA ASSOCIATION of GOVERNMENTS

Map 5

The $11 billion of expenditures on residential building provided a significant stabilization factor to the region

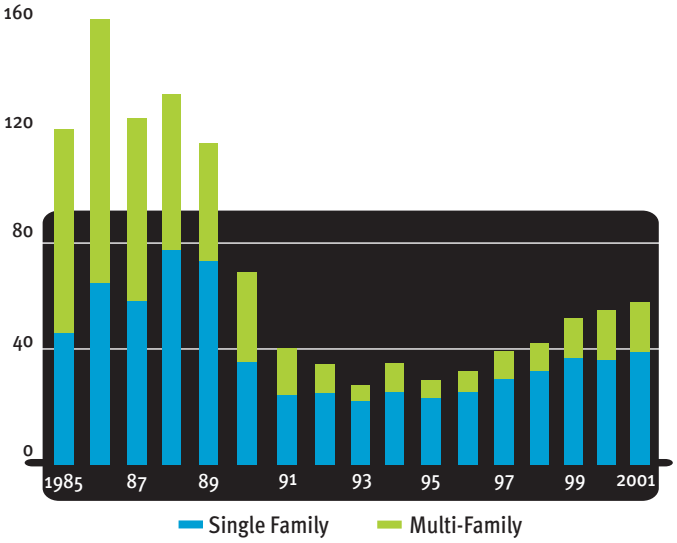
HOUSING

Housing Construction

Why is this important?

The magnitude of housing construction, population growth and new households are major determinants of housing prices. Different geographical distributions of the new housing result in different needs for support infrastructures and services. The residential construction industry is also an important source of employment and corporate profits in the region.

Figure 32
Residential Building Permit Activity
Units (000)

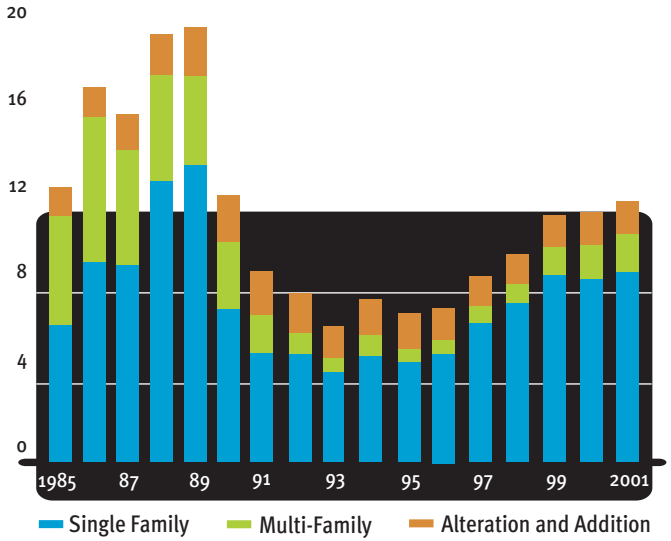


Source: Construction Industry Research Board

How are we doing?

In 2001, almost 59,000 building permits for residential units were issued, an increase of approximately 2,500 over the previous year (Figure 32). *The value of residential building activity reached more than $11 billion in 2001* (Figure 33). *The increase of residential unit permits in 2001 occurred despite a slowing down of the overall economic activities in the region.* Furthermore, the $11 billion of expenditures on residential building provided a significant stabilization factor to the regional economy during this national recession year.

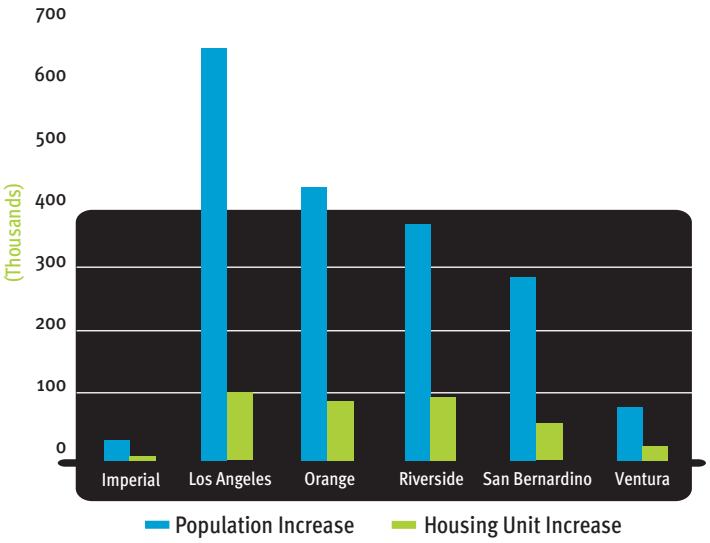
Figure 33
Residential Building Permit Activity
Valuations (Dollars in Billions)



Source: Construction Industry Research Board

Housing construction has been lagging behind population growth in the region. Between 1990 and 2000, there were an additional 600,000 residents in Los Angeles County, while just over 100,000 housing units were constructed in the county (Figure 34).

Figure 34
Population Increase vs. New Housing Units
1990-2000

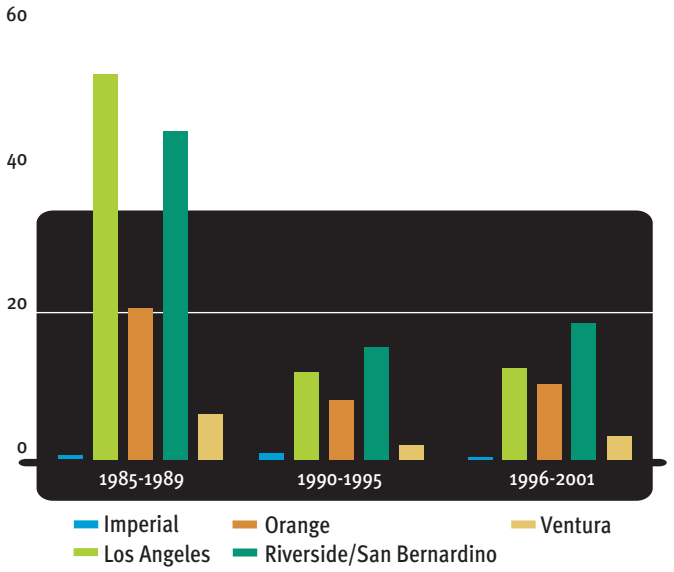


Source: US Census Bureau and Construction Industry Research Board

Since 1995, building permits for residential units have steadily increased and almost doubled. However, the 2001 total still remained about half of the 120,000-per-year units in the late 1980s. *During the past 15 years, in addition to the substantial reduction in total units, housing construction also underwent significant changes in composition as well as geographic location.* As to the composition of the building permit activity, the share of the multi-family units decreased from about 60 percent in 1985 to 20 percent in 1995. There has been a gradual increase in recent years in multi-family units, and these accounted for 30 percent of all residential building permits in 2001 (see Figure 34a page 96).

As to the location of housing construction, Riverside and San Bernardino Counties have been playing an ever-increasing role in housing production in the region. For example, between 1985 and 2001, the share of new residential units in the Inland Empire increased from 30 to 50 percent, while Los Angeles County's share decreased from 45 to 30 percent (Figure 35).

Figure 35
Residential Building Permit Activity by County
Annual Average (000)



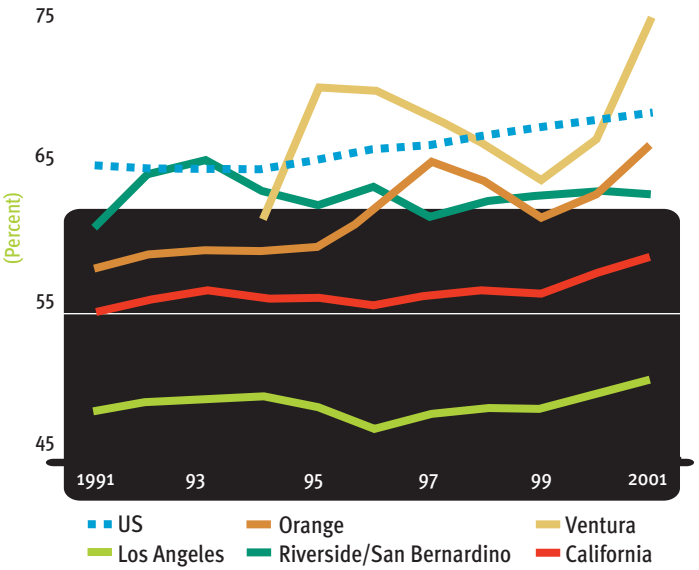
Source: Construction Industry Research Board

Homeownership

Why is this important?

Owning one's home has long been considered an important part of the American Dream. In addition, equity generated from homeownership represents almost 45 percent of the total household wealth.[1] Higher homeownership rates also help to improve neighborhood stability.

Figure 36
Homeownership Rates



Imperial County's homeownership rate was 58 percent in both 1990 and 2000
Source: US Census Bureau. Ventura County annual data started from 1994

How are we doing?

Between 1990 and 2000, the homeownership rate improved in almost every county in the region, particularly towards the end of the decade (Figure 36). Imperial County's homeownership rate was 58 percent in both 1990 and 2000. In 2001, the increase in homeownership rate throughout the region was due partly to the low mortgage interest rates.

Except for Ventura County, the region lagged behind the nation in homeownership. While nationally more than two-thirds of the households owned their homes in 2001, only half of the households in Los Angeles County were homeowners. In addition, throughout the 1990s, Los Angeles County was the only county in the region with a homeownership level lower than the state average.

When comparing homeownership in the nine largest metropolitan regions in the nation, the region's homeownership rate of 55 percent in 2000 ranked eighth, above only the New York Metropolitan Region (see Figure 76 page 78). It should be noted that the San Francisco Bay Area, though famous for its high housing prices, achieved a 58 percent homeownership rate, surpassing Southern California. The Detroit Metropolitan Region's homeownership rate of 72 percent was the highest in 2000. Factors constraining homeownership in the region include inadequate housing production of various housing types, particularly multi-family units, and an increase in housing prices that is faster than household income.

There was a significant disparity in homeownership among racial/ethnic groups. Homeownership is more common for Whites and Asians than for African Americans and Hispanics. Based on the statewide data, 41 percent of Hispanics and 30 percent of African Americans owned their homes in 2000, compared to 65 percent of Whites and 57 percent of Asians.[2]

Housing Affordability

Why is this important?

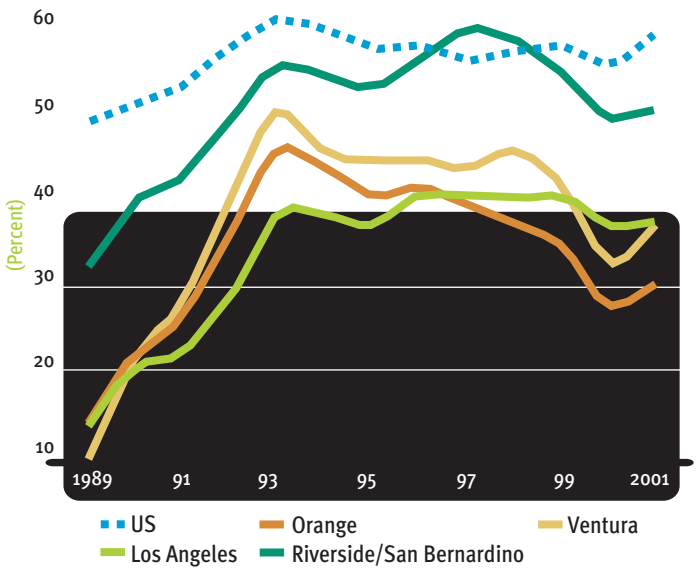
■ ■ Housing affordability provides an indication of the level of burden from housing expenses. Housing expenses constitute the largest share of household expenditures among all consumption items. When a household spends too much on housing, there is not enough left to meet other household needs, such as transportation, healthcare or education. Housing affordability also affects decisions as to where to live. Hence, housing affordability is an indicator reflecting the fundamental well-being of households. In addition, it also influences business decisions to locate or expand in the region. Lack of affordable housing would result in a weakening our region's attractiveness and competitiveness. ■ ■

How are we doing?

After the 1990-1993 recession, the gap of affordable housing available between the region (particularly the coastal counties) and the nation has been gradually widening (Figure 37). In 2001, partly as a result of lower interest rates, the percentage of households who can afford to purchase a median-priced home increased slightly throughout the region from the previous year. Nevertheless, almost two-thirds of the residents in coastal counties (Los Angeles, Orange and Ventura) could not afford a median-priced home in 2001.

In 2000, 37 percent of all household expenditures in the region were on housing alone, which is significantly higher than the national average of 32 percent.[3] *When comparing housing costs among owner-households in the nine largest metropolitan regions in the nation, the region had the highest rate (33 percent) of households with housing costs greater than 30 percent of the household income* (see Figure 77 page 79, also see Map 6 page 40 on owner-household cost burden). For renter-households, the cost burdens were even higher across the nine metropolitan regions than for owner-households. In this region, 43 percent of renter-households had housing costs greater than 30 percent of the household income, the highest rate in the nation (see Figure 78 page 79). There were no major variations among the six counties as to the housing cost burden for both owner and renter-households. Finally, in both measures, Southern California had a higher housing cost burden than either the New York Metropolitan Region or San Francisco Bay Area.

Figure 37
Housing Affordability
(Percent of Households Who Can Afford to Purchase a Median-Priced Home)



Source: California Association of Realtors

Housing affordability issues impact low-income households even more significantly. (Low-income households are those with 80 percent or less of the median household income in the county). Lack of lower-end multi-family housing construction and the decline of median household income further compound the problem of housing affordability for low-income households (see Figure 26 page 26). Over 60 percent of low-income households in Los Angeles, Orange, San Bernardino and Ventura Counties spend more than 30 percent of their income on housing. Except for Imperial County, more than 30 percent of low-income households in the region pay more than 50 percent of their income on housing.[4]

Housing Crowding

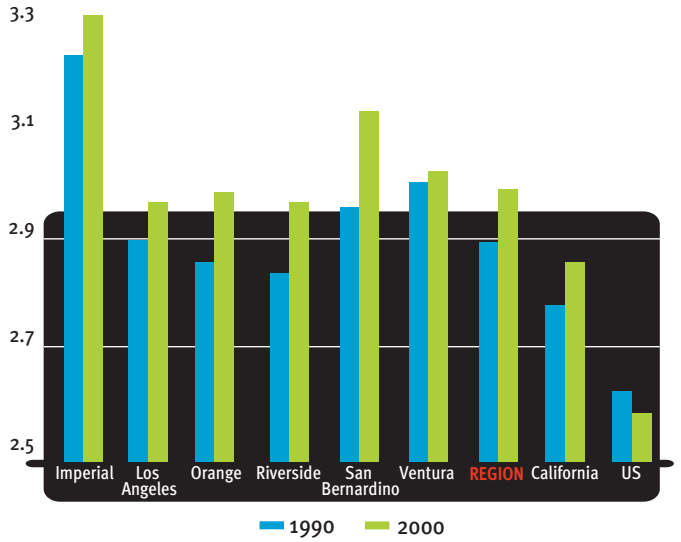
Why is this important?

■ ■ Housing crowding measures the percent of housing units with more than one person per room, including all rooms except bathrooms. It provides indications on housing shortage and housing affordability. Lack of affordable housing will lead to higher levels of housing crowding. ■ ■

How are we doing?

The housing shortage in the region has impacted the quality of life in some fundamental ways. Without an adequate amount of housing, population growth can be accommodated to a greater degree by increases in the number of persons per household (Figure 38). There is an important racial/ethnic dimension in the trend of more crowded housing in the region. Hispanics and Asians have substantially larger households than African Americans and Whites and are more likely to live in overcrowded housing. In addition, living in crowded housing is more common among foreign-born than U.S.-born residents.

Figure 38
Persons per Household



Source: 1990 and 2000 Census

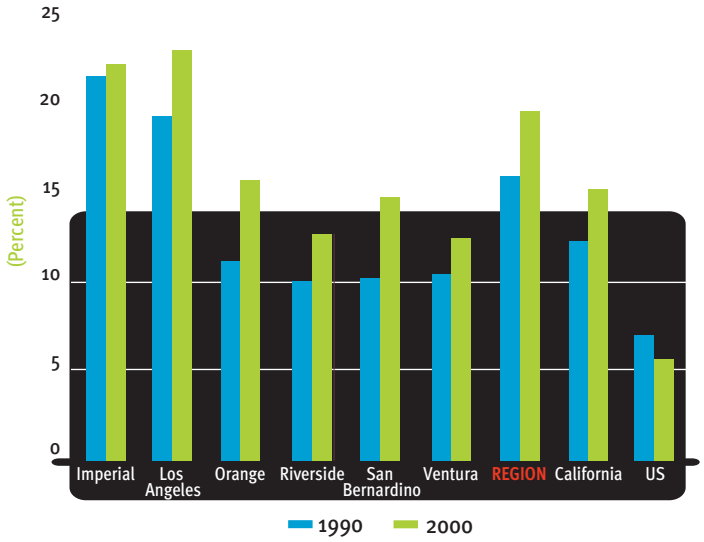
A housing shortage has also been reflected in the decline of the vacancy rates. By 2000, California had the lowest percentage of unoccupied units (5.8 percent) among the 50 states in the nation. Within Southern California, three counties had even lower percentages of unoccupied units than the state: Los Angeles (4.2 percent), Orange (3.5 percent) and Ventura (3.4 percent).

Contrary to the decreasing trend at the national level, the percentage of housing considered crowded increased in every county in the region from 1990 to 2000 (Figure 39). *Almost one out of every five households in the region lived in crowded housing in 2000, compared to about 15 percent for the state and 7 percent for the nation.* In 2000, Los Angeles County had the highest rate of housing considered crowded in the

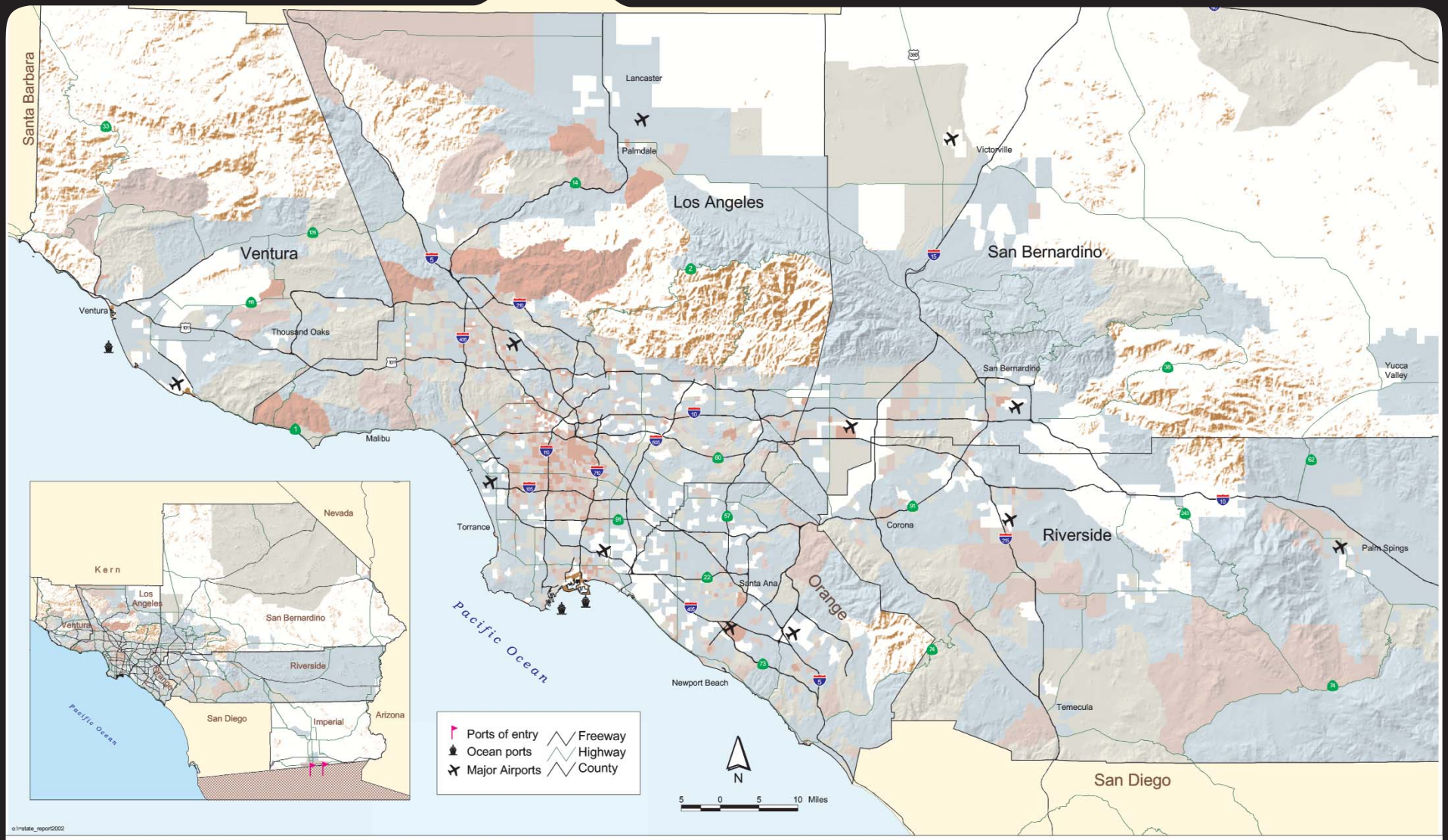
region, followed closely by Imperial County. There was also a substantial increase in the level of crowding in Orange and San Bernardino Counties during the 1990s. (See Map 7 page 41 on overcrowded housing in 2000.)

When comparing crowded housing among metropolitan regions, Southern California had by far the highest rates of crowded housing at 20 percent (see Figure 79 page 80). The San Francisco Bay Area had the second highest rate, 11 percent. Six of the nine largest metropolitan regions had less than 10 percent of their housing classified as crowded housing.

Figure 39
Crowded Housing
(Percent of Housing with More Than One Person per Room)



Source: 1990 and 2000 Census



Percent of Homeowner Households Spending Over 30% of Household Income on Housing

0 - 25%
26 - 35%
36 - 40%
41 - 50%
Over 50%

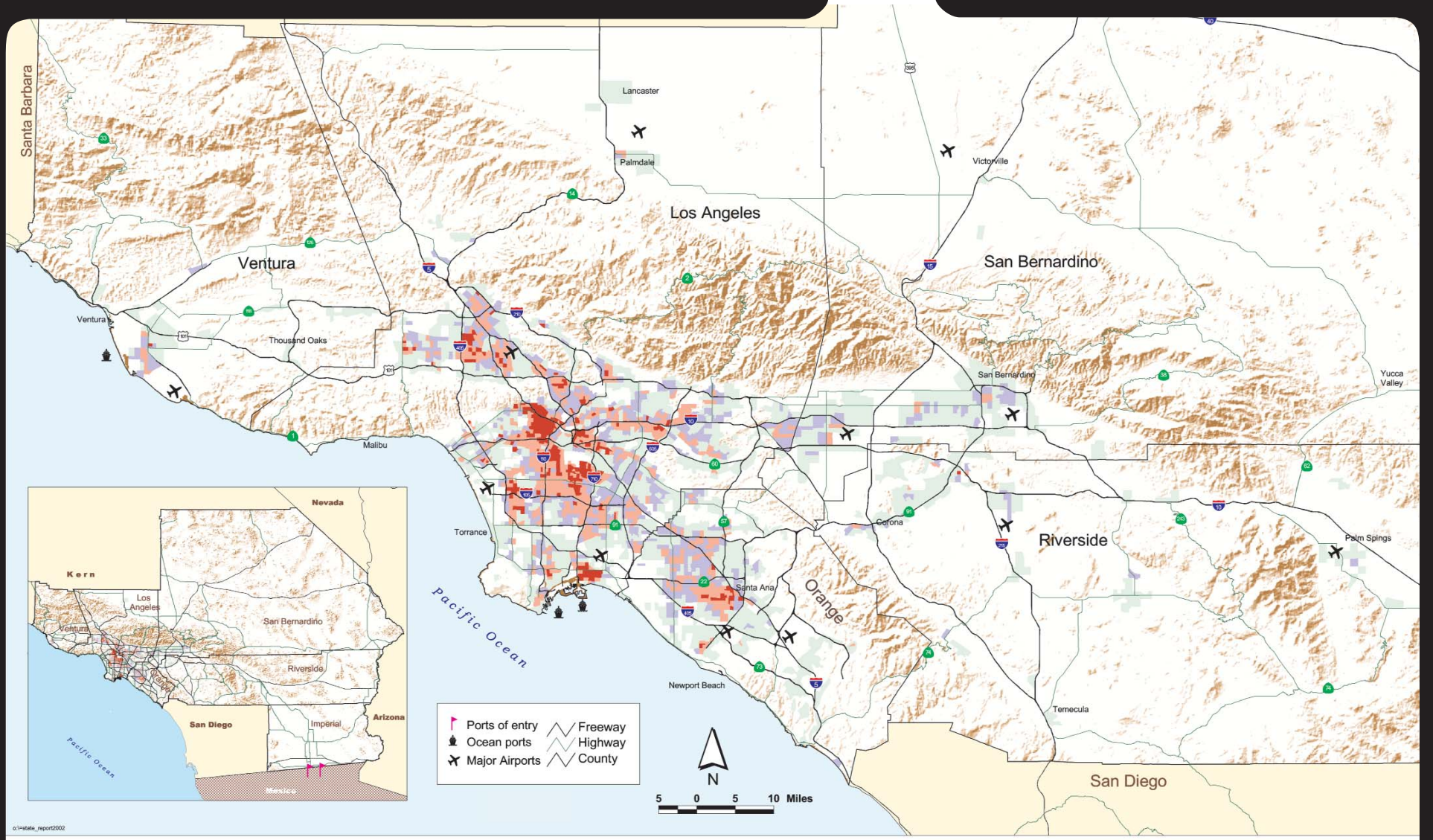
Source: Census 2000, SF3
Thomas Bros. Network

HOUSING COST BURDEN

Homeowner Households

SOUTHERN CALIFORNIA ASSOCIATION of GOVERNMENTS

Map 6



Crowded Housing Units (> 1 person/room) per Square Mile by Census Tract

0 - 100
101 - 500
501 - 1,000
1001 - 2,500
Over 2,500

Source: Census 2000, SF3
Thomas Bros. Network

OVERCROWDED HOUSING

SOUTHERN CALIFORNIA ASSOCIATION of GOVERNMENTS

Map 7

From 1990 to 2000, the rate of increase in transit trips was higher than population growth

TRANSPORTATION

Highway Use and Performance

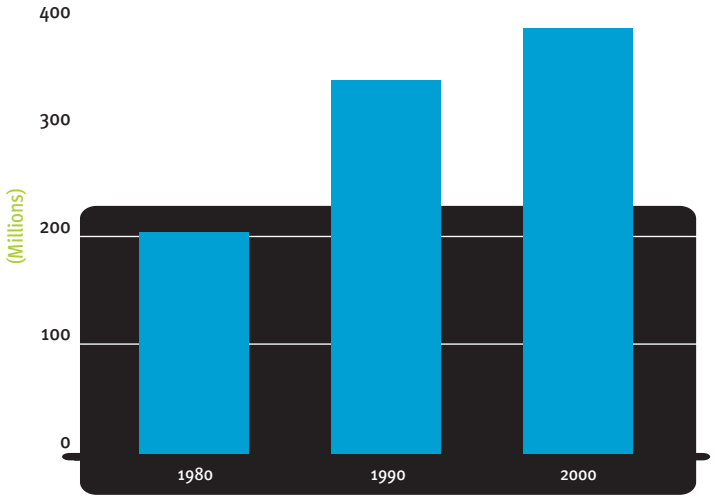
Why is this important?

The number of vehicle miles traveled (VMT) indicates the overall level of highway and automobile uses, and is directly related to mobile source emissions. VMT also has implications for various issues of concern including congestion, energy consumption, and demand for infrastructure improvements.

How are we doing?

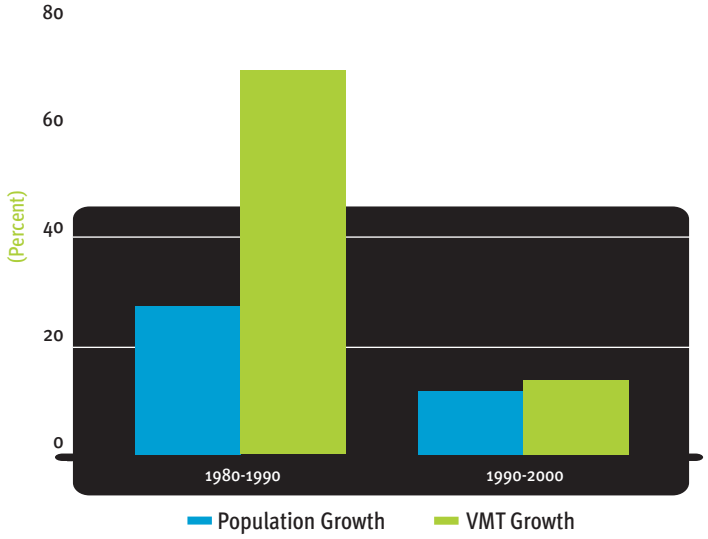
From 1980 to 2000, the vehicle miles traveled in the region almost doubled (Figure 40). *However, there were different patterns of VMT growth between the 1980s and the 1990s*. From 1980 to 1990, VMT increased almost three times faster than population growth, 71 percent versus 26 percent (Figure 41). This was a consistent VMT growth trend in every county in the region (see Figure 41a page 97).

Figure 40
Daily Vehicle Miles of Travel



Source: California Department of Transportation

Figure 41
Population Growth vs. VMT Growth



Source: California Department of Transportation

However, the growth pattern was very different in the 1990s. During this time, VMT increased at about the same rate as population, which was approximately 13 percent. In addition, three counties (Imperial, Riverside and Orange) experienced less growth in VMT than their respective population growth (see Figure 41b page 97).

Slower population growth only partially explains the slower VMT growth rate during the 1990s versus the previous decade. Employment grew at a much smaller rate in the 1990s (8 percent) than the 1980s (24 percent). The widespread congestion of the region's highway system itself could have been a factor discouraging VMT growth. A slight decline of the real median household income is considered a factor limiting the growth of vehicle ownership and vehicle miles traveled. Contrary to national trend, the percentage of households without a car in the region actually increased from 1990 to 2000 (see Figure 84 page 82).

Los Angeles was ranked the most congested metropolitan area in the nation in both 1990 and 2000 by the Roadway Congestion Index.[1] This index measures the level of congestion including considerations of the time duration and the percentage of the roadway system in congestion. In 2000, the Los Angeles Metropolitan Area also had the highest annual hours of delay and congestion cost per person.[2] However, while the congestion indices for the other large metropolitan areas increased significantly during the 1990s, Los Angeles maintained its congestion index level (see Figure 80 page 80).

Transit Use and Performance

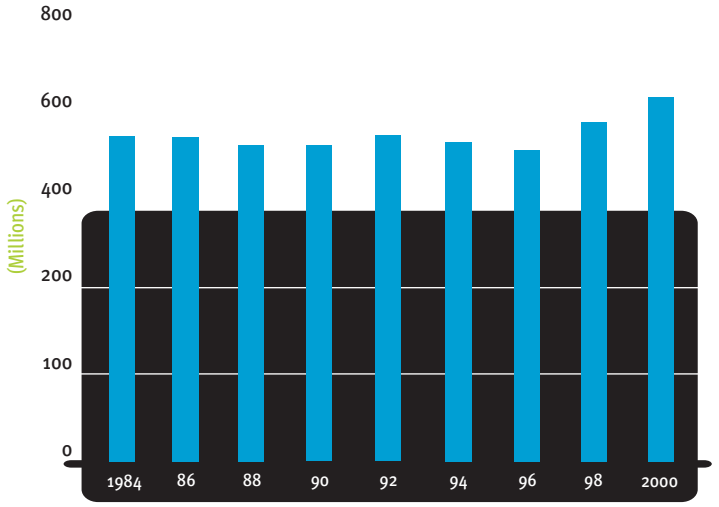
Why is this important?

■ ■ Use of public transit helps to improve congestion and air quality and decrease energy consumption. Reliable and safe transit services are essential for many residents to participate in the economic, social and cultural life in Southern California. Work trips account for only about one half of the total transit trips. The indicator of annual unlinked transit trips measures the level of transit use at the system level. In addition, transit trips per capita provides a measure of transit use at the individual level. ■ ■

How are we doing?

In 2000, total unlinked transit trips in the region reached 630 million, which is an increase of more than 40 million, or 7 percent, over 1999 (Figure 42). *The increase in transit ridership during 1999-2000 was the highest since 1985*. The Los Angeles County Metropolitan Transportation Authority (LACMTA) heavy rail (the Metro Red Line Subway System) annual ridership more than doubled, increasing from about 13 million to almost 28 million, between 1999 and 2000.

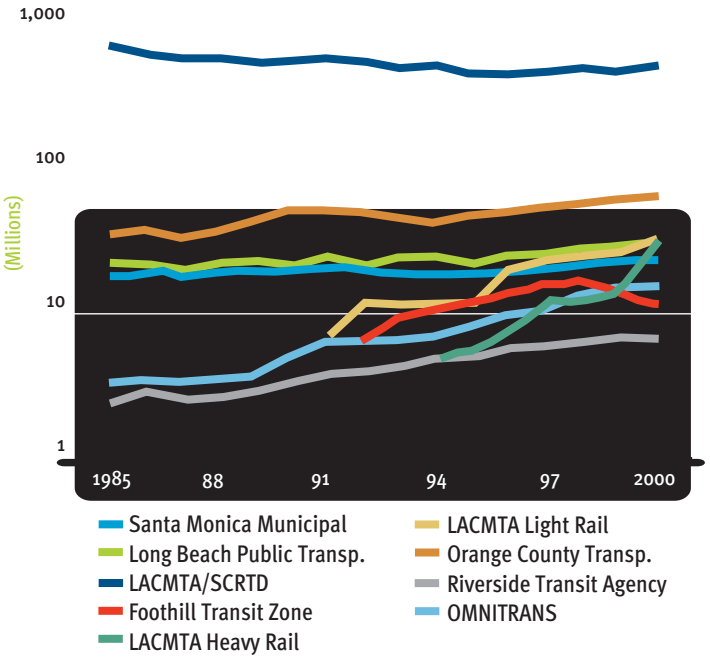
Figure 42
Annual Unlinked Transit Trips – All Major Operators



Source: National Transit Database and SCAG

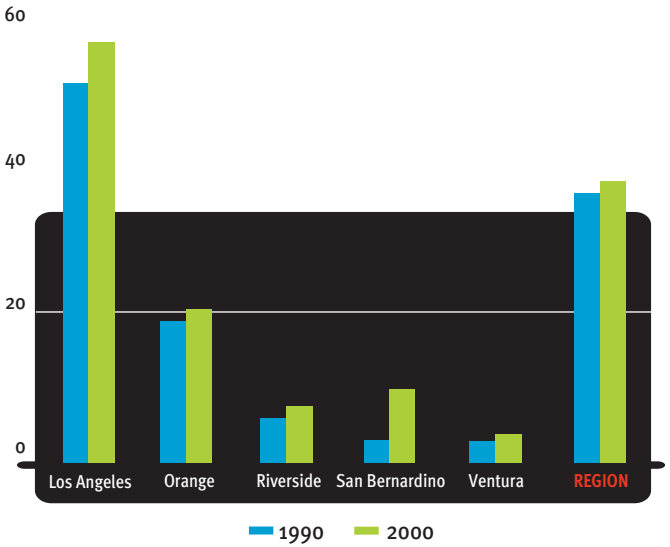
While annual transit trips were declining from 1991 to 1995, they have been increasing continuously since 1995. From 1990 to 2000, annual transit trips increased by about 20 percent. This increase in transit use was higher than both the VMT growth (15 percent) or population growth (13 percent) during the same period (see Figure 42a page 98). Accordingly, annual transit trips per capita increased from 36 transit trips in 1990 to 38 transit trips in 2000. An increase of both the percentage and the number of households without a car in the last decade provided a larger pool for potentially "captive" transit riders. In addition, the immigrant population, particularly those who arrived in the 1990s, had a higher propensity to use transit than the native residents.[3]

Figure 43
Annual Unlinked Transit Trips – Large Operators
Log Scale



Source: National Transit Database and SCAG

Figure 44
Transit Trips per Capita



Source: National Transit Database, 1990 and 2000 Census

The LACMTA, which continues to be the primary transit operator in the region, accounted for about 70 percent of the total unlinked transit trips in the region in 2000. Six of the nine large transit operators that account for 90 percent of the region's total transit trips are in Los Angeles County (Figure 43).

Since transit services have been heavily concentrated in Los Angeles County, transit trips per capita during 2000 remained much higher in Los Angeles County than the other counties in the region (Figure 44). However, transit trips per capita have also increased in each of the other five counties in the region. (See Map 8 page 43 on the region's commuter rail, urban rail and rapid bus system. Also see Map 9 page 54 on park and ride lots in the region.)

Journey to Work: Travel Time

Why is this important?

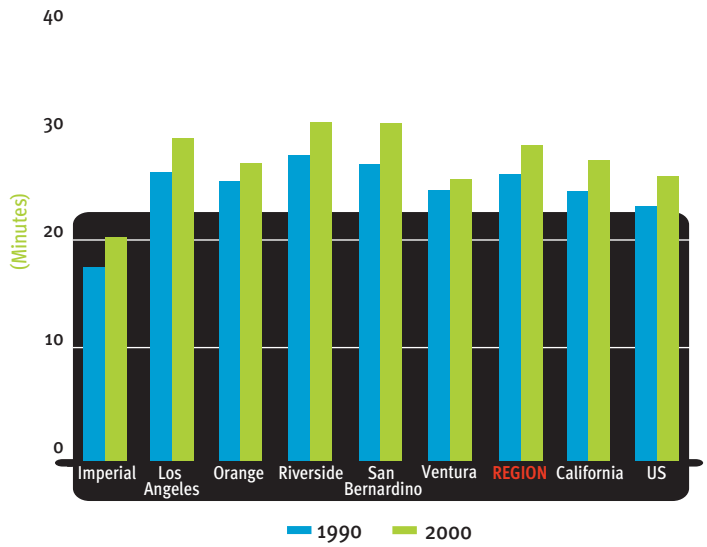
■ ■ Though the share of work trips among total trips has been declining, work trips continue to generate disproportionately higher impacts. Work trips tend to be longer than other daily trips. In addition, commute hours are generally the period with the most traffic congestion. Accordingly, transportation investments are still influenced significantly by the nature of work trips. Finally, the choice of residential location is partly determined by the location of work and the associated journey to work. ■ ■

How are we doing?

The Southern California Association of Government's (SCAG) 2001 Regional Transportation Plan (RTP) identified targets to be achieved by 2025, including an average travel time to work of 25 minutes for auto and 45 minutes for transit. Between 1990 and 2000, the average travel time to work increased in every county in the region (Figure 45). *The region's average travel time to work increased from about 26 to 29 minutes, and continued to be higher than the state and national average*. Within the region, workers in the Inland Empire (Riverside and San Bernardino Counties) continued to have the highest average travel time to work.

There were also different patterns of travel time distribution among counties in the region in 2000. The Inland Empire had a significantly higher percentage of work trips that were 60 minutes or more (Figure 45a page 98). Most of those trips were likely to be cross-county trips with longer trip length. Also both of the Inland Empire Counties had a higher percentage of work trips that were less than 25 minutes. (See Map 10 page 55 on average travel time to work.)

Figure 45
Average Travel Time to Work
(Workers 16 Years and Over)



Source: 1990 and 2000 Census

More than half the work trips by public transit in 2000 were less than 45 minutes (Figure 45b page 99). In addition, more than 30 percent of the transit work trips in 2000 were longer than 60 minutes. However, with the exception of Los Angeles County, about 50 percent of transit work trips in the region were longer than 60 minutes.

Journey to Work: Mode Choice

Why is this important?

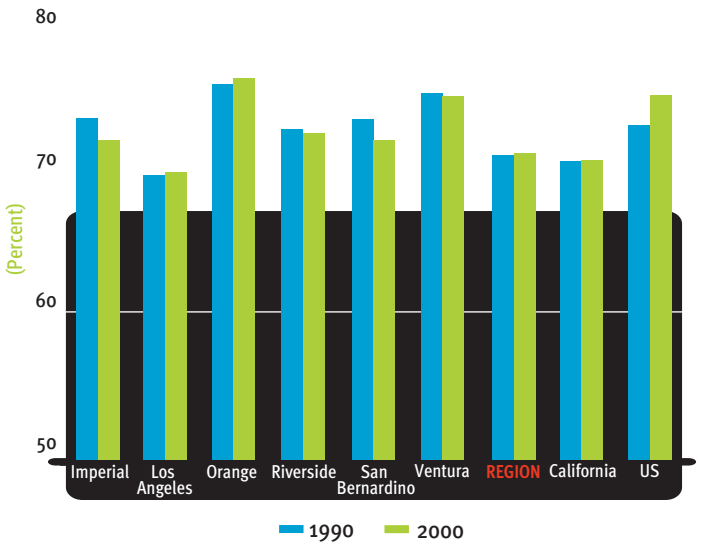
■ ■ Single-occupant vehicle use accounts for the highest level of land consumption among all transportation modes. It also generates the highest level of environmental and social impacts. Increasing the use of alternative modes to work (e.g., carpool, transit, etc.) is critical to accommodate future growth with less environmental, economic and social impacts. ■ ■

How are we doing?

Between 1990 and 2000, the national trend in the mode choice to work was an increase in drive alone commuting and a decrease in carpooling and transit use (see Figure 46a page 99). This is contrary to a shared public policy objective of decreasing the level of the drive alone commuting. *Contrary to the national trend, the overall pattern of mode choice to work in the region remained essentially unchanged during the 1990s. In particular, the region maintained a higher level of carpooling than the rest of the nation.* However, the percentage of workers driving alone did not decrease and continued to be the choice of 72 percent of workers in Southern California.

Within the region, Los Angeles County continued to have the lowest rate of workers who drove alone to work, while Orange and Ventura Counties continued to have the highest rates. Only San Bernardino and Imperial Counties showed noticeable improvements in reducing the drive-alone commute (Figure 46).

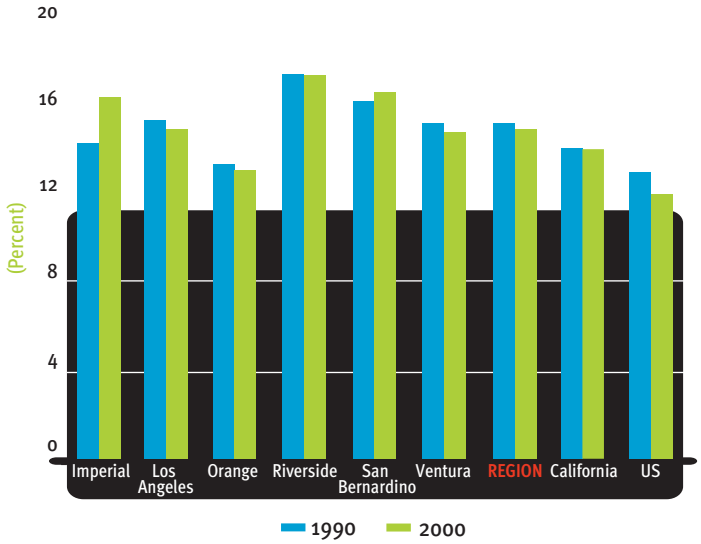
Figure 46
Drove Alone to Work
(Workers 16 Years and Over)



Source: 1990 and 2000 Census

Among the nine largest metropolitan regions in the nation, the SCAG Region had the highest share of workers who carpooled (see Figure 82 page 81). The three inland counties had a higher rate of workers who carpooled to work than the three coastal counties (Figure 47). Orange County continued to have the lowest rate of carpooling in the region. There is a continuing effort to maintain the existing carpool share, since a one percent drop in the carpooling rate translates into more than 40,000 additional vehicles on our already crowded freeways and surface streets which in turn results in an annual increase of more than 300 million vehicle miles of travel.[4]

Figure 47
Carpooled to Work
(Workers 16 Years and Over)

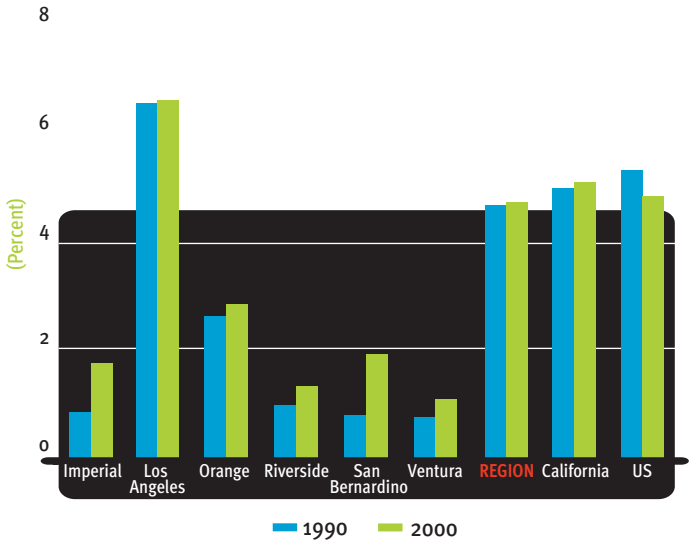


Source: 1990 and 2000 Census

The share of workers in the region that used transit for their commute increased slightly between 1990 and 2000 (Figure 48). Every county experienced a slight increase in transit use. Los Angeles County, with the most extensive transit system, continued to have the highest percentage of transit use in the region. San Bernardino County, whose number almost tripled, had the largest increase in both the percentage share as well as the absolute number of workers using transit to get to work. *Among the nine largest metropolitan regions in the nation, the region ranked 7th in the transit share of journey to work trips, ahead of only the Dallas and Detroit regions* (see Figure 83 page 82).

The number of people who "worked at home" in the region increased from approximately 186,000 to 241,000 between 1990 and 2000, an increase of about 30 percent, significantly higher than the population increase of 13 percent.

Figure 48
Transit to Work
(Workers 16 Years and Over)



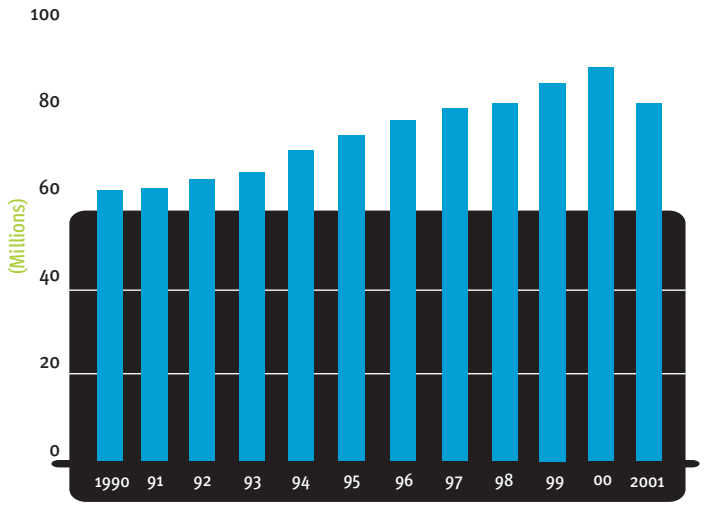
Source: 1990 and 2000 Census

Airport Activities

Why is this important?

Air transportation is vitally important to the regional economy of Southern California. Because of its geographical location, Southern California relies heavily on air transportation services to access and interconnect domestic and foreign markets. For example, airborne exports accounted for about 54 percent of the total value of commodity exports out of the Los Angeles Customs District (LACD) in 2000. Adequate aviation capacity and quality services are essential to the tourism, business, and trade sectors of the regional economy.

Figure 49
Air Passenger Traffic in Major Airports

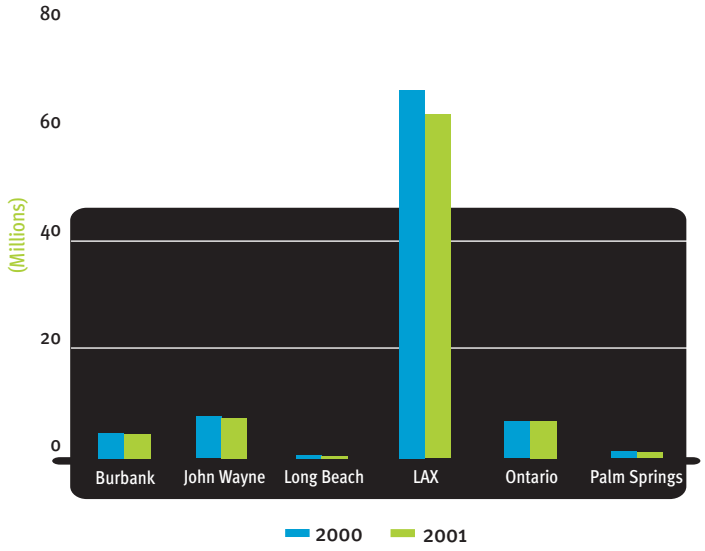


Source: SCAG gathered data

How are we doing?

For the first time since 1990, air passenger traffic in the region declined in 2001 (Figure 49). The combined effects of the decline of international trade activities due to recession (as further discussed in the International Trade Section), as well as the September 11 terrorist attack, led to the largest reduction of airport-related activities in a decade. During the month of September 2001, air passengers at the region's airports decreased by about 47 percent compared to August 2001 and by about 30 percent compared to September 2000.[5] The international air travel market experienced the greatest decline, especially among risk-averse foreign tourists. From 2000 to 2001, the number of air passengers at the Los Angeles International Airport (LAX) decreased from 68 million to under 62 million (Figure 50). Each of the other five major airports in the region suffered a lower passenger decline than LAX.

Figure 50
Air Passenger Traffic by Airport

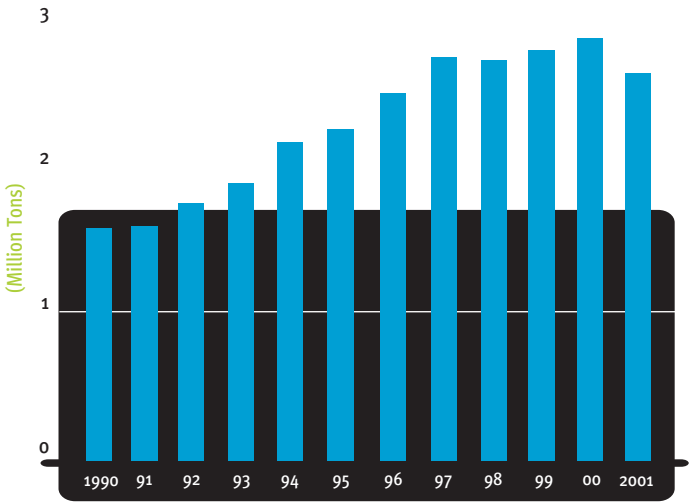


Source: SCAG gathered data

Among the region's airports, LAX also suffered the largest reduction in aircraft operations (Figure 50a page 100). Aircraft operations were reduced by 45,000 in 2001 from 2000 to a six-year low of 738,000. Despite the significant decline, LAX was still ranked the third busiest passenger airport in the world, behind only Atlanta Hartsfield International Airport and Chicago O'Hare International Airport.[6] While the region's airport activity declined in 2001, LAX's activity is expected to increase towards its ultimate physical capacity of 78 million annual passengers. However, its location in a built-out urban environment makes airport expansion both physically and politically challenging.

In 2001, the region also experienced the largest decline in air cargo since 1990 (Figure 51). Air cargo was reduced by 340,000 tons to a five-year low of just over 2.5 million tons from 2000. The leading airborne exports out of LACD by value are electronic components, computers and aerospace components.[7]

Figure 51
Air Cargo in the Six Largest Airports



Source: SCAG gathered data

The economic consequences of September 11 have strongly reverberated throughout the region. The impacts to airport activities in Southern California have likely been disproportionately severe compared to other parts of the country because of the greater importance of air services to the regional economy. The September 11 events may accelerate the growth of corporate jet activities at small air carrier airports such as Burbank Airport and John Wayne Airport , as well as large general aviation airports such as Van Nuys and Santa Monica.[8]

Port Activities

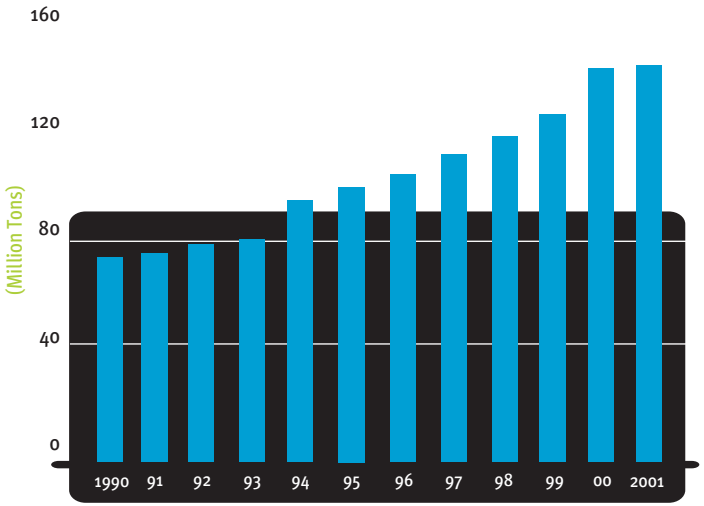
Why is this important?

■ ■ Almost 85 percent of the imports through the Los Angeles Customs District (LACD) arrive at the region's ports. In addition, more than 55 percent of the nation's west coast port traffic is handled through the Ports of Los Angeles and Long Beach.[9] Continuing to provide a world-class port infrastructure is critical to sustaining a growing and prosperous regional economy. ■ ■

How are we doing?

In 2001, the Ports of Los Angeles and Long Beach combined processed over 142 million tons of cargo, which is a slight increase from the previous year and a near doubling from their 1990 level (Figure 52). The Port of Hueneme in Ventura County processed 3.3 million tons of cargo in 2001, which was a slight decrease from 3.4 million in the previous year.

Figure 52
Port Cargo at Los Angeles and Long Beach



Source: Los Angeles Economic Development Corporation, 2002 International Trade Trends and Impacts

LACD contains the largest port complex in the nation, accounting for 25 percent of the nation's waterborne trade by volume. It is also the third largest container complex in the world, ranked behind Hong Kong and Singapore but ahead of Rotterdam and the major port complex in South Korea.[10]

There has been a major investment to upgrade the ports and the support infrastructure in the region. Most notably, the $2.4 billion Alameda Corridor Project was completed in April 2002. In addition, two new "mega-terminals" at the Ports of Los Angeles and Long Beach are also partially open to handle large container ships.

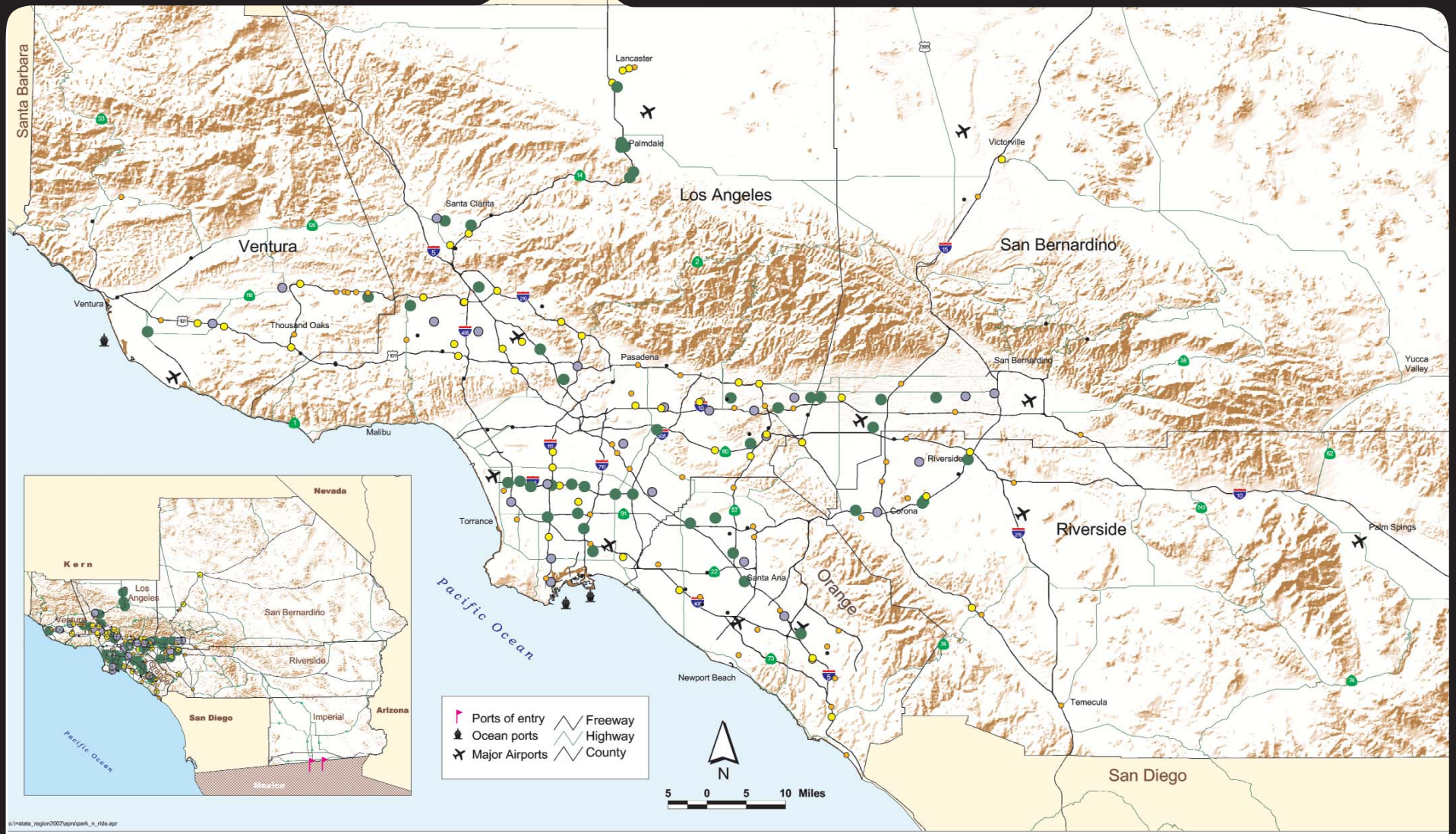
Metro Red Line
Metro Blue & Green Lines
Metro Rapid Bus
Metrolink

Source: 2001 RTP
Thomas Bros. Network

Commuter Rail, Urban Rail
and Rapid Bus System

SOUTHERN CALIFORNIA ASSOCIATION of GOVERNMENTS

Map 8



Number of Parking Spaces

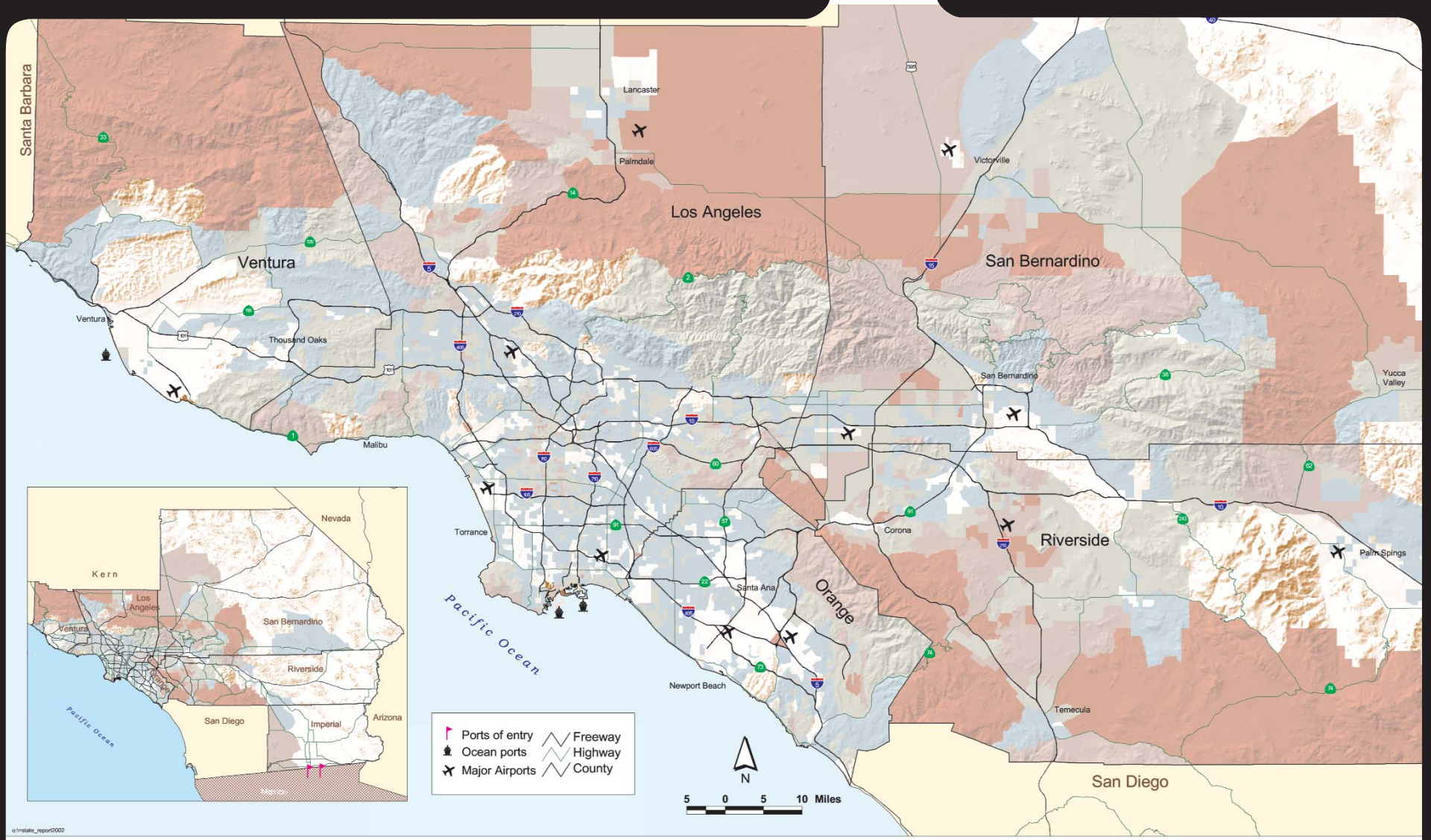
- 50 and Under
- 51 - 100
- 101 - 200
- 201 - 300
- Over 300

Source: SCAG Park & Ride Inventory 2001
Thomas Bros. Network

Park and Ride Lots

SOUTHERN CALIFORNIA ASSOCIATION of GOVERNMENTS

Map 9



Average Travel Time to Work by Census Tract (Minutes)

0 - 25
26 - 30
31 - 35
36 - 40
Over 40

Source: Census 2000, SF3
Thomas Bros. Network

AVERAGE TRAVEL TIME TO WORK

SOUTHERN CALIFORNIA ASSOCIATION of GOVERNMENTS

Map 10

During the 1990s, the region made consistent improvements in carbon monoxide, ozone and particulate matter

THE ENVIRONMENT

Air Quality

Why is this important?

■ ■ Good air quality is vital for the health of residents, nature and the economy. Air quality regulations target six "criteria" pollutants that adversely affect human health and welfare: carbon monoxide, ozone, particulate matter, nitrogen dioxide, sulfur dioxide, and lead. ■ ■

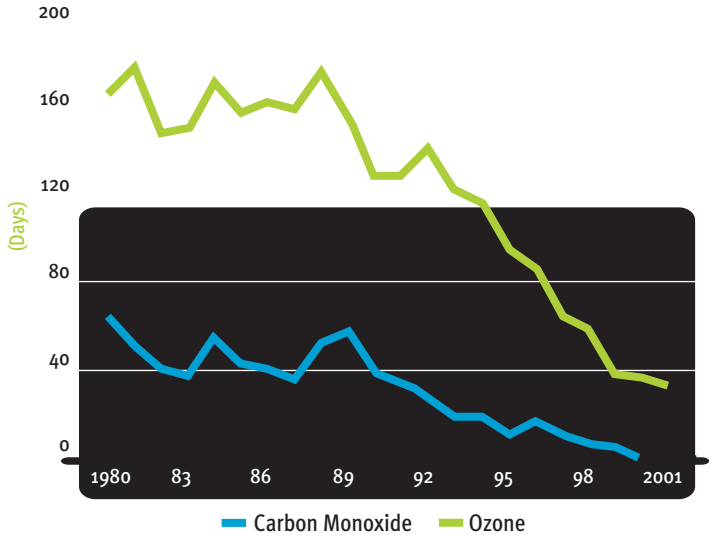
How are we doing?

During the 1990s, the region made consistent improvements in carbon monoxide (CO), ozone and particulate matter (PM10) in fewer days exceeding federal or state standards. In addition, consistent improvements were also made in the decrease of number of days of second stage episodes.

Carbon Monoxide

The 8-hour federal standard for carbon monoxide (> 9.5 parts per million) was not exceeded on a single day in 2001 in the SCAG Region, compared to 67 days in 1980 and 3 days in 2000 (Figure 53). The locations with the highest concentrations of CO were in South Central Los Angeles County and the West San Fernando Valley. Carbon monoxide has become less of a national air quality problem over the past twenty years as concentrations in the air have decreased by 60 percent nationwide.[1] Transportation sources (e.g., automobile exhaust) account for approximately 95 percent of the region's emissions. Declining transportation emissions have contributed significantly to the reduction in total CO emissions. Contributors to reduced CO emissions from motor vehicles include national standards for tailpipe emissions, new vehicle technologies, and use of oxygenated gasoline.

Figure 53
Number of Days Exceeding Federal Standards
In the SCAG Region



Note: Ozone data represents the total number of days the Federal 1-hour standard was exceeded at all monitoring stations in the South Coast Air Basin

Source: South Coast Air Quality Management District

Ozone

Ozone occurs both in the Earth's upper atmosphere and at ground level. Ozone occurs naturally in the Earth's upper atmosphere (stratospheric) – 10 to 30 miles above the Earth's surface – where it forms a protective layer that shields us from the sun's harmful ultraviolet rays.

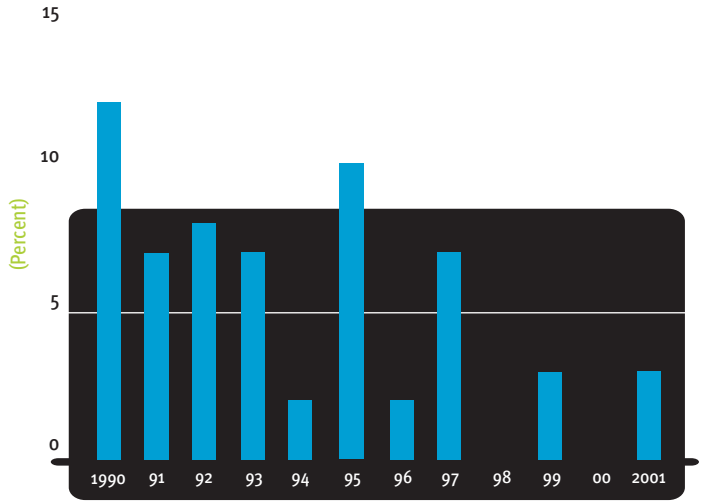
Ground-level ozone (tropospheric) is formed when pollutants emitted from various sources including motor vehicles and industrial sources react chemically in the presence of sunlight with NO2, dependent upon weather-related factors. Ozone pollution is a concern during the summer months, when the weather conditions needed to form it – lots of sun, hot temperatures – normally occur.

Ozone is a good indicator of overall air pollution. Progress in attaining state and federal standards is limited by the fact that ozone and its precursory pollutants can be carried long distances from their original sources by the wind. Even though tropospheric ozone is the most persistent air quality problem, the number of days exceeding the one-hour federal standards for ozone (> 0.12 parts per million (ppm) parts of air, by volume per hour) have declined by almost 79 percent in the South Coast Air Basin between 1980 and 2001. *The Basin exceeded the federal one-hour standard for ozone during 36 days in 2001, compared to 167 days in 1980 and 40 days in 2000* (Figure 53). All of the federal standard exceedances have occurred during the months from May to September. Furthermore, health advisories were issued on only 15 days in 2001 in the Basin, a decrease of approximately 89 percent from 1980. For the third year in a row, the region has not had a single Stage 1 ozone episode, (when air quality is very unhealthy (one-hour average ≥ .20 ppm)), proving that such ozone levels are a thing of the past (see Figure 53a page 100).

Nitrogen Dioxide and Sulfur Dioxide

Oxides of Nitrogen, or NOx, is the generic term for a group of highly reactive gases, all which contain nitrogen and oxygen in varying amounts. One common pollutant, nitrogen dioxide (NO2), along with particles in the air, can often be seen as a reddish-brown haze over many urban areas. NOx and the pollutants formed from NOx can be transported over long distances, following the pattern of prevailing winds. As a result, problems associated with NOx are not confined to areas where NOx are generated. Controlling NOx is, therefore, often most effective if done from a regional perspective, rather than focusing on sources in one local area.

Figure 54
Percent of Days Exceeding Federal Standards (PM_{10})



Source: South Coast Air Quality Management District

In 2001, the federal nitrogen dioxide standard was not exceeded in the Basin, with a maximum concentration of 0.0419 ppm, which was 78 percent of the standard. In addition, concentrations of SO2 were below the federal standard at every monitoring location in the Basin in 2001.[2]

Particulate Matter

Particulate matter is the general term for a mixture of solid particles, including pieces of dust, soot, dirt, ash, smoke and liquid droplets or vapor directly emitted into the air, where they may remain suspended for long periods of time. Sources of particulate matter include stationary, area, and mobile sources. Of greatest concern to public health are the particles small enough to be inhaled into the deepest parts of the lung that are less than 10 microns in diameter. One 10-micron particle is about one-seventh the thickness of a human hair, and is known as PM10. Health problems begin as the body reacts to these foreign particles. *Although PM10 levels have fluctuated over the years, the region has still witnessed a decrease by 83 percent of sample days that have exceeded the federal standard since 1985.[3] Only three percent of the sample days exceeded the federal standards in 2001.*

The AQMD began in 1999 to record the number of Basin-days that the PM2.5 federal standard was exceeded. PM2.5 are particulates that are 2.5 micrometers or smaller. Based on the recognition that smaller particles are more likely to be inhaled deeper into the lungs, PM2.5 is considered a better indicator of public health impact than PM10. *The federal standards for PM2.5 were exceeded 15 days in 1999 and 23 days in both 2000 and 2001 in the region.*

In the Los Angeles area, transportation is the most important source of PM10, accounting for approximately 40 percent of this pollutant.[4] In the Los Angeles basin primarily during the May through October summer period, particles form photochemically in the atmosphere from gaseous motor vehicle exhaust and industrial emissions, accounting for approximately 20 percent of PM10.[5] Air quality is worse in the Inland Empire counties of Riverside and San Bernardino, due to both weather conditions and geography. These counties, however, are not the major emitters of this pollutant.

In June 2002, the California Air Resources Board passed new, stricter standards for particulate matter, amounting to new clean air goals for the state. The standards are to become effective by early 2003. Also in June 2002, the AQMD adopted a stringent dust control plan for the Coachella Valley to reduce particulate pollution levels and protect residents' health.[6]

Water Resources

Total Water Consumption

Why is this important?

■ ■ Ensuring reliable water resources to meet essential water demands and maintaining water quality are important goals in Southern California. ■ ■

How are we doing?

The Metropolitan Water District (MWD) serves approximately 85 percent of the region's population. MWD is the largest water wholesaler for domestic and municipal uses in Southern California. Water use in the MWD service area comes from both local and imported sources. MWD obtains its water supplies from two sources: Northern California's Bay-Delta through the California Aqueduct and from the Colorado River through its own Colorado River Aqueduct. The city of Los Angeles

purchases water from MWD to supplement its supplies from the Los Angeles Aqueduct (LAA), local groundwater, and recycled water. [7]

MWD customers within the region grew from approximately 12.5 million in 1990 to 14.2 million in 2000.[8] Of the 3.43 million acre-feet of water used in 2000, 3.14 million (91 percent) were used for municipal and industrial or urban purposes, and the remaining 0.3 million (9 percent) were used for agricultural purposes (Figure 55). The relative share of municipal and industrial water use to total water use has been increasing over time in the SCAG Region as agricultural water use has declined due to urbanization and market factors, including the price of water.

Total water consumption in the MWD service area increased from 3.25 million acre-feet in 1990 to 3.43 million acre-feet in 2000, an increase of approximately 5.4 percent. Agricultural water use decreased by nearly four percent from 302,000 acre-feet in 1990 to 290,200 acre-feet in 2000. Municipal and industrial use increased by 6.4 percent from 1990 to 2000, from 2.95 to 3.14 million acre-feet.

Figure 55
Water Consumption in Metropolitan Water District Service Area
In Acre Feet (000)

County	Agricultural 1990	Agricultural 2000	Urban/Retail 1990	Urban/Retail 2000	Total Use 1990	Total Use 2000
Los Angeles	3.9	4.9	1,784.5	1,821.3	1,788.4	1,826.2
Orange	30.5	25.9	629.8	671.4	660.3	697.3
Riverside	208.5	199.2	235.9	308.2	444.4	507.4
San Bernardino	33.5	44.5	184.2	209.6	217.7	254.1
Ventura	25.6	15.7	115.1	127.1	140.7	142.8
TOTAL	302.0	290.2	2,949.5	3,137.6	3,251.5	3,427.8

Note: The Metropolitan Water District does not serve Imperial County.
Note: One acre foot equals 326,000 gallons

Source: Metropolitan Water District: Planning and Resources

Per Capita Water Use

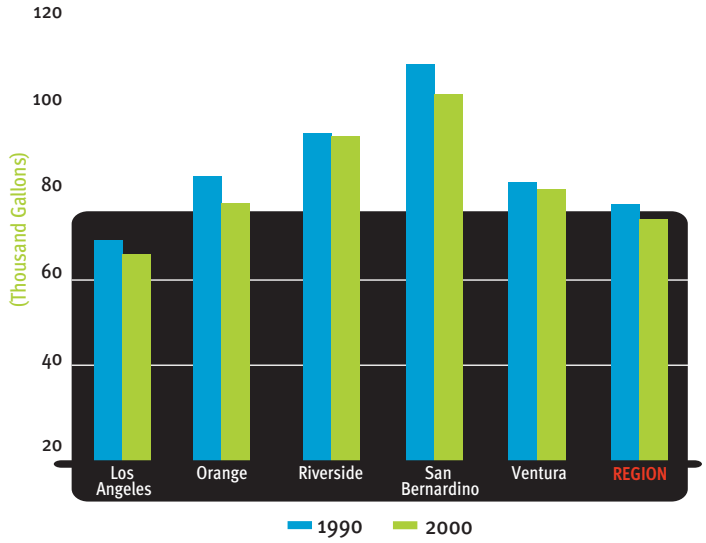
Why is this important?

Water consumption per capita is important when looking at a city's or county's growth projections in order to maintain a safe yield per person and sustain community well-being.

How are we doing?

Despite a population increase, per capita water consumption decreased in all counties in the SCAG Region from 1990 to 2000, with a regional decrease of over 6 percent (Figure 56). Per capita numbers do not include agricultural demands, only retail municipal and industrial consumption. Annual water consumption by San Bernardino County

Figure 56
Per Capita Water Consumption



Note: MWD service area includes Retail Municipal and Industrial use, not Agricultural use
Source: Metropolitan Water District

residents exceeded the regional average by 42 percent in 1990 and 43 percent in 2000. Residents of Los Angeles County used an average of 179 gallons of water per person per day in 2000, whereas residents of San Bernardino County used an average of 284 gallons per person per day. This indicates that residents of the cooler, denser coastal Los Angeles County use significantly less water than residents of inland San Bernardino County, which is warmer and less dense.

Water Recycling and Alternative Water Supply

Water recycling is the treatment and disinfection of municipal wastewater to provide a water supply suitable for non-potable (non-drinking water) purposes. Potential uses of recycled water include irrigating landscape, filling lakes, recharging groundwater basins, and providing water for non-potable uses, such as toilets and industrial uses. The SCAG Region is estimated to grow by approximately six million people by 2025, yet the quantity of water imported to the region will likely decrease, as water is diverted to competing demands such as population growth outside the region and environmental needs. Furthermore, water supply is subject to changes in climate and state and federal regulation. To remain reliable, Southern California households, workplaces, and agricultural operations need to make the best use of the supplies the region has – as well as improve the quality of the water coming to Southern California. The region needs to efficiently use and reuse water as well as explore alternative water supplies.

Beach Closures

Why is this important?

■ ■ When the ocean waters adjacent to a beach contain sufficient concentrations of certain bacteria, they are not safe for swimming and other recreational uses. In 1999, the California Department of Health began monitoring all beaches with more than 50,000 annual visitors and that are affected by a flowing storm drain, river, or creek. Closures or advisories are issued for beaches that fail to meet the state's standards for various sources of pollution. ■ ■

How are we doing?

During wet weather, storm drain runoff is the largest source of pollution to local beaches, flowing untreated to the coast and severely impacting water quality. Runoff is often contaminated with motor oil, animal waste, pesticides, yard waste and trash. A rain advisory is issued anytime there is significant rainfall that may affect bacteria levels in ocean waters. Levels of bacteria can rise significantly in ocean waters, during and after rainstorms, especially when they are adjacent to storm drains, creeks and rivers.

Beach advisories and closings increased by 14 percent statewide from 2000 to 2001, partly due to greater rainfall quantities in 2001 compared to 2000 levels, and partly due to the fact that more municipalities are monitoring their beaches more regularly. *Among all California counties, Orange County reported the highest number of closings/advisories for 2001 followed by Ventura, Los Angeles, San Diego, and Santa Barbara.* The total closings and advisories by county in 2001 were 1,540 in Ventura, 1,592 in Orange and 1,046 in Los Angeles. Los Angeles County experienced a 17 percent decrease in total closings and advisories in 2001, while both Ventura and Orange Counties had roughly a 80 percent increase in closings and advisories for the same year.[9]

In both Los Angeles and Orange Counties the beach advisories and closings were primarily due to bacteria levels that exceeded standards. In most cases, the contamination was from undetermined sources. A

small percent was due to general rain advisories, sewage discharges, and storm-water washing pollution into beach water. In Ventura County approximately 82 percent of the beach closings were due to elevated bacteria levels from stormwater, while 18 percent were of unknown origin.[10]

Natural Systems

Why is this important?

■ ■ The landscape of the SCAG Region has experienced significant changes over the years, largely resulting from human impact and rapid growth. The region is witnessing significant changes in not only the urban and suburban areas of the region, but also in the agricultural areas. ■ ■

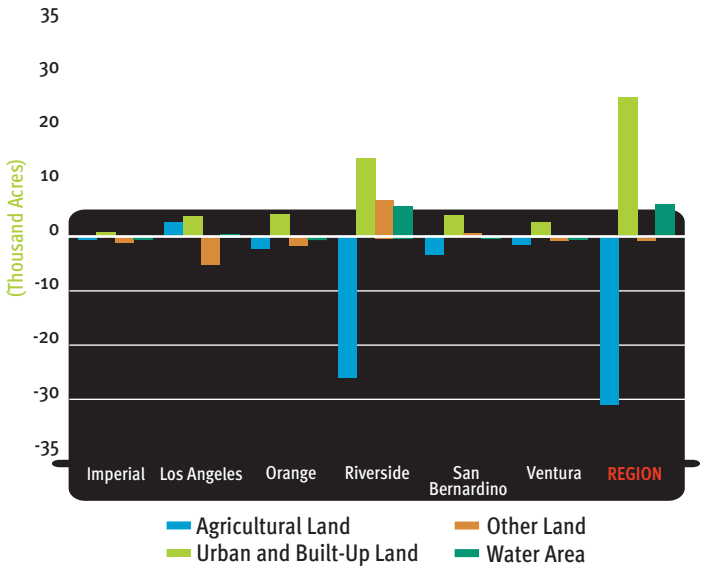
How are we doing?

The California Department of Conservation's Farmland Mapping and Monitoring Program (FMMP) conducts biennial land use inventories, the latest occurring in 2000 for the period of 1998-2000. The inventory of agricultural and urban land use for the six-county SCAG Region includes both private and public land.

In the region as a whole, there were 25,453 acres of new urban land (Figure 57). This resulted primarily from the net loss of 31,101 acres of agricultural land, which includes both farmland and grazing land. For the 1998-2000 inventory, Riverside County led all other SCAG counties with 14,080 new urban acres. It was also the leader in net losses of agricultural land in the region, with 26,747 acres going out of production. The conversion of 6,814 acres to the Other Land category was primarily due to the establishment of the San Jacinto Wildlife Area, the Santa Rosa Plateau Ecological Reserve, and the Southwestern Riverside County Multi-Species Reserve. The 5,853 acres converted to the Water Area category was due to the completion of the Diamond Valley Reservoir near Hemet and the addition of Mystic Lake in the San Jacinto Wildlife Area. A total of 1,934,615 acres were inventoried in Riverside County for both 1998 and 2000.[11]

Los Angeles County was the only county to significantly gain, rather than lose agricultural acreage. The 2,022 acres that the county gained were the result of a conversion of 4,166 acres to prime farmland due to newly irrigated agricultural land, primarily carrots and potatoes, in the Antelope Valley area. The county did, however, have a net loss of 1,307 acres of grazing land in order for the farmland acreage to expand.12 In

Figure 57
Land Use Conversion, 1998-2000
Net Acreage Changed



Source: California Department of Conservation Division of Land Resources Protection

addition, the Trust for Public Land has spearheaded the effort to protect land along the Los Angeles River Greenway.

The conversion to Urban and Built-Up Land in Imperial County (net change of 366 acres) was for a water control structure on the Holtville West quadrangle.

Solid Waste

Why is this important?

■ ■ A sustainable society minimizes the amount of waste sent to landfills by reducing, recycling or reusing the waste generated as much as possible. ■ ■

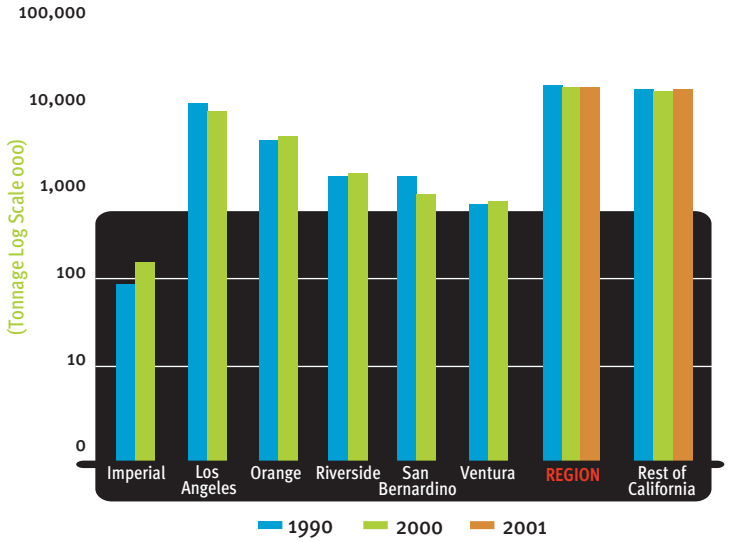
How are we doing?

Solid waste disposal at landfills measures the response to California's adoption of the Integrated Waste Management Act (IWMA) of 1989. Under the oversight of the California Integrated Waste Management Board (CIWMB), California's cities, counties and businesses have implemented thousands of diversion programs, such as curbside recycling pickups, drop-off centers, green waste collection, and municipal composting. The IWMA established a 50 percent goal for solid waste diversion from landfills for jurisdictions in California. Diversion rates are calculated by removing disposal from estimated generation and expressing the remainder as a percent of total generation. These rates are used to evaluate the progress of a particular city or county in reducing waste and complying with the IWMA.[13]

The 2001 economic downturn in California resulted in a negative effect on the recyclable commodities markets. Because waste generation is highly correlated with economic and demographic change, generation increased at a lower rate in 2001, a little less than 3 percent. The 2001 statewide diversion rate remained the same as it was in 2000, at 42 percent compared to 10 percent in 1989. Since 1990, the CIWMB estimates that Californians have diverted 195.8 million tons of waste from disposal.[14]

Despite the rising population, residents of the SCAG Region reduced the amount of waste sent to landfills by 10 percent between 1990 and 2000 (Figure 58). San Bernardino County reduced the amount of waste it sent to landfills by 42 percent, while the amount of waste Riverside County sent to landfills increased by 11 percent. Imperial County, on the other hand, increased the amount of waste it sent to landfills during the decade by 118 percent. The total amount of waste the SCAG Region sent to landfills remained relatively constant from 2000 to 2001.[15]

Figure 58
Solid Waste Disposal at Landfills



Source: California Integrated Waste Management Board

Energy

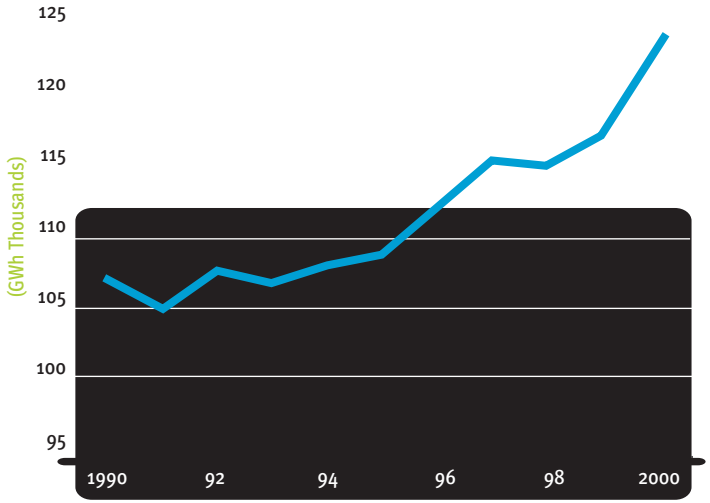
Why is this important?

Adequate energy is essential to support the regional economy and meet the demands of the increasing population in the region. Energy uses from different sources also create different environmental, fiscal and public health impacts.

How are we doing?

During the 1990s, rapid population growth as well as growth in the economy and the boom in computer- and power-driven e-commerce, caused an increase in power demand throughout California and the West. The SCAG Region's growth in power demand was similar to that of the state as a whole. During the 1990s, electricity consumption in the region increased almost 16 percent (Figure 59).[16] While demand grew, little new generation was being built in the state, causing power reserves to shrink. In both the SCAG Region and California, the commercial sector is the largest electricity user while the agricultural sector is the smallest.

Figure 59
Electricity Consumption



Source: California Energy Commission, California Energy Demand Forecast, September, 2001

Figure 60
Electricity Use by Provider

Plan Area	1990	2000
Electricity Consumption (GWh)		
SCE*	81,673	96,050
LADWP	21,971	24,115
BGP**	2,951	3,281
REGION	106,595	123,446
Peak Demand (MW)		
SCE*	16,879	18,724
LADWP	4,920	5,031
BGP	773	842
Region	22,572	24,597

**SCE figures include forecasts for municipal utilities besides LADWP, Burbank, Glendale and Pasadena. SCE service territory includes some area outside the SCAG Region.*
*** Burbank, Glendale and Pasadena power utilities.*

Source: California Energy Demand 2002-2012 Forecast, September 2001

Both private and public utilities serve the SCAG Region's electricity needs. Southern California Edison, provided approximately 70 percent of the total electricity demand in the region in 2000, covering all or nearly all of Orange, San Bernardino, and Ventura Counties, and most of Los Angeles and Riverside Counties (Figure 60). Ten municipal utilities and the Imperial Irrigation District, which comprise The Southern

California Public Power Authority (SCPPA) provided the remaining local electricity distribution service in the region.[17]

In 2000, residents in the region used electricity to provide energy services such as refrigeration (21 percent of electricity use), washing laundry, air conditioning, pool heating, lighting (20 percent), and for small household appliances (19 percent). In the industrial and commercial sectors, lighting, motors, and cooling were the largest electricity users.[18] Factors influencing electricity use in the region are economics and population growth. Weather also influences electricity use, particularly peak demand. Hot weather results in increased use of air conditioning and therefore increases peak demand.

Conventional fossil-fuel power plants still provide most of the SCAG region's power, with coal and natural gas being the two most dominant fuels. According to data from the SCPPA, the region's municipal utilities provide a much larger portion of electricity from coal than Southern California Edison does. According to projected 2002 figures, Southern California Edison's largest sources of energy are natural gas (38 percent) and nuclear power (25 percent) (see Figure 60a page 101). Equal portions of Southern California Edison's power come from coal (16 percent) and renewables (16 percent). The SCPPA resource mix is largely due to the overwhelming contribution of LADWP whose coal-fired plants provide about 50 percent of the utility's power, although they are located outside California (see Figure 60b page 101).[19]

Natural Gas

Natural gas demand increased by almost 36 percent between 1990 and 2000 in the SCAG Region, much higher than that of electricity. The Southern California Gas Company primarily serves the region. A municipal gas utility, Long Beach Energy (part of the City of Long Beach), supplies about 1.5 percent of the gas in the region.[20]

Excluding natural gas used to generate electricity, natural gas usage in the region consists of three nearly equal components: industrial and commercial use, residential use, and gas usage in thermally enhanced oil recovery (TEOR) operations, where heat is used to improve pumping of viscous petroleum from production fields.[21] Presently, natural gas vehicles represent a tiny fraction of the region's natural gas usage (about half of one percent), although this use of natural gas is expected to increase dramatically in the next decade.

Between 2000 and 2001, there was a significant variation among the six counties in high school dropout rates

QUALITY OF LIFE

Student Performance

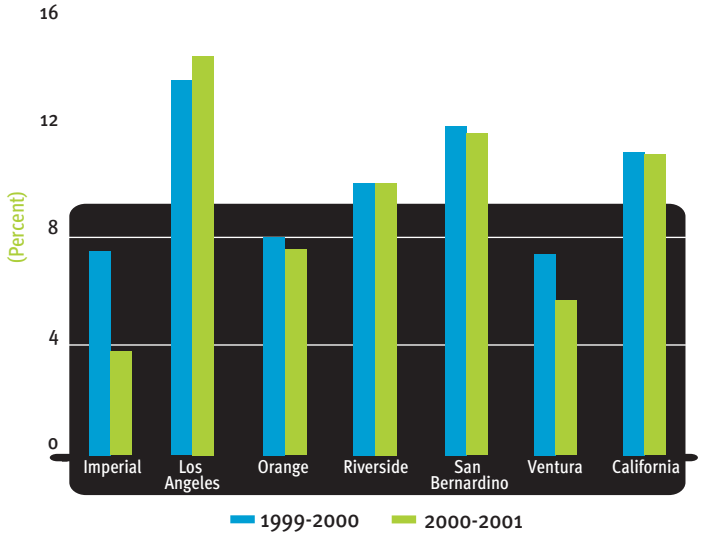
Why is this important?

■ ■ High school student performance is measured through three indicators: 1) high school dropout rates, 2) percent of high school graduates meeting the University of California (UC) or California State University (CSU) entrance requirements, and 3) percent of high school graduates meeting criteria on SAT/ACT Tests. High school dropouts are severely disadvantaged in competing for quality jobs. Performance on the last two indicators reflects the potential level of success in pursuing college education by high school graduates. ■ ■

How are we doing?

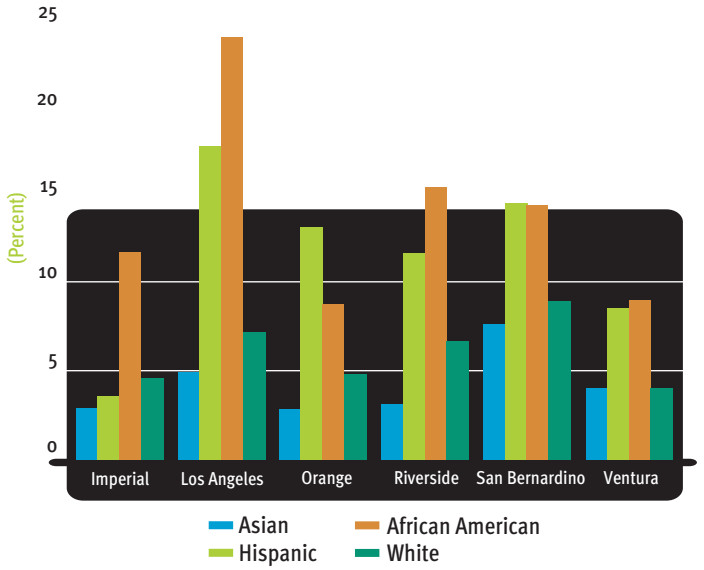
Between 1999 and 2001, Los Angeles County had the highest dropout rate in public high schools in the region followed by San Bernardino County (Figure 61). These were also the two counties in the region with higher dropout rates than the state. There was a significant variation

Figure 61
Dropout Rates in Public High Schools



Source: California Department of Education

Figure 62
Dropout Rates by Ethnicity in Public High Schools
2000-2001



Source: California Department of Education

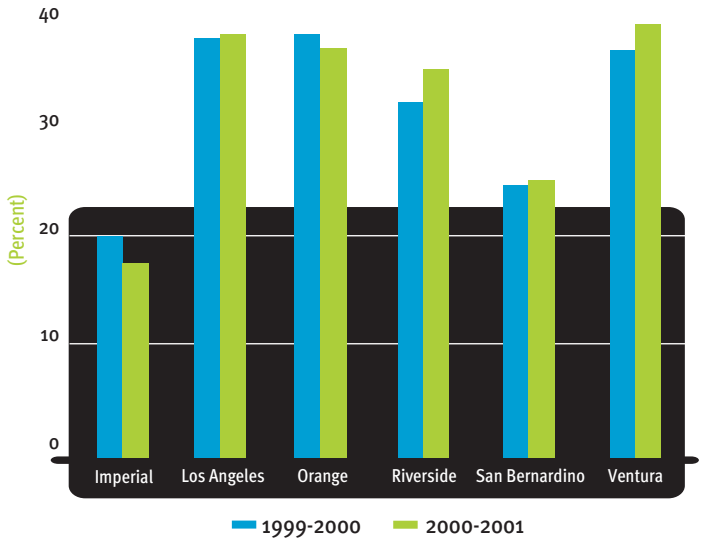
among the counties, ranging from about 15 percent in Los Angeles to less than 4 percent in Imperial from 2000 to 2001. From 2000 to 2001, Los Angeles was the only county with a higher dropout rate. On the other hand, Imperial County's dropout rate decreased by almost half, from approximately 8 percent to less than 4 percent.

There was a significant disparity in dropout rates among the different racial and ethnic groups in the region. African American students experienced about a 25 percent dropout rate in Los Angeles County, in contrast to about 3 percent for Asian students in Orange and Imperial Counties. African American and Hispanic youths had much higher dropout rates than White or Asian high school students in every county (Figure 62).

As to the percent of graduates in public schools meeting UC or CSU entrance requirements, the three coastal counties (Los Angeles, Orange and Ventura) continued to outperform the other three inland counties (Imperial, Riverside and San Bernardino) (Figure 63). The three coastal counties also had higher attainment rates for Bachelor's degrees as discussed under "Education Attainment" (see Figure 9 page 13).

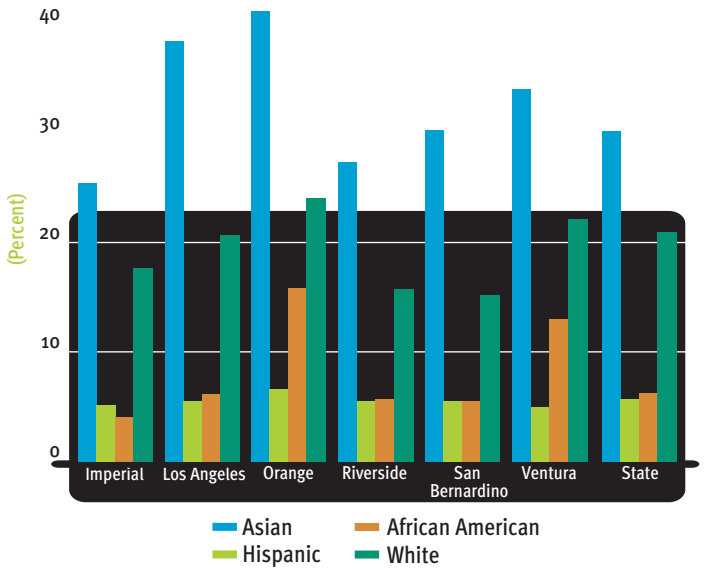
As to the percent of high school graduates meeting criteria on SAT/ACT Tests, significant disparity also exists among different racial and ethnic groups (Figure 64). Asian and White students outperformed Hispanic and African American counterparts in every county in the region. However, African American students in Orange County performed as well as Whites in Riverside and San Bernardino Counties.

Figure 63
Graduates Meeting UC or CSU Entrance Requirements



Note: Graduates from public high schools
Source: California Department of Education

Figure 64
Graduates Meeting SAT/ACT Test Criteria
2000-2001



Note: Graduates from public high schools
Source: California Department of Education

Public Safety

Why is this important?

Crime related activities consume an enormous amount of valuable social and economic resources. The social costs are real, though less quantifiable, including for example, pain and suffering of crime victims and their families and weakening of community cohesion. The economic costs include loss of productivity because of death or disability resulting from crime, medical costs, and loss of property values in neighborhoods with high crime rates.

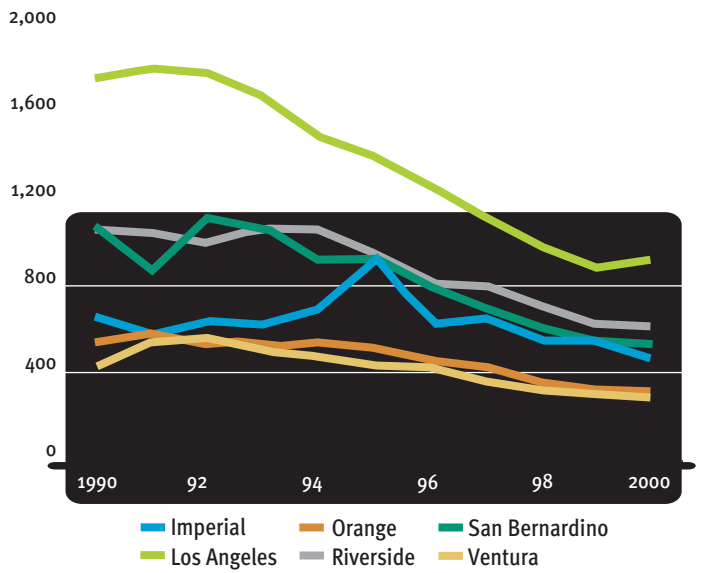
How are we doing?

The overall crime rate has been decreasing in the region, state and the nation since the early 1990s.[1] *During the 1990s, violent crime rates generally went down in every county in the region* (Figure 65). Violent crimes include homicide, forcible rape, robbery and aggressive assault. The rate of decrease was among the steepest recorded since World War II. Factors contributing to the decrease in crime rates include general improvements in law enforcement as well as better economic conditions, particularly during the second half of the 1990s decade.[2]

From 1990 to 2000, the region as a whole consistently had higher violent crime rates than the state, primarily because of the higher rate in Los Angeles County. Within the region, Ventura and Orange Counties had the lowest rates in violent crime.

An important recent exception to crime reduction was when the violent crime rate in Los Angeles County in 2000 increased by more than five percent from 1999. The increase occurred in all categories of violent crime.[3] The rate of homicides increased from 9.1 to 10.3 per 100,000 population. The number of homicide victims, though it had decreased from 1,856 persons in 1991 to 891 persons in 1999, increased significantly back to 1,000 persons in 2000, accounting for almost 50 percent of the total homicide victims in California. Between 1999 and 2000, Los Angeles was also the only county in the region with a higher property crime rate.

Figure 65
Violent Crime Rate
Per 100,000 Population



Source: California Department of Justice

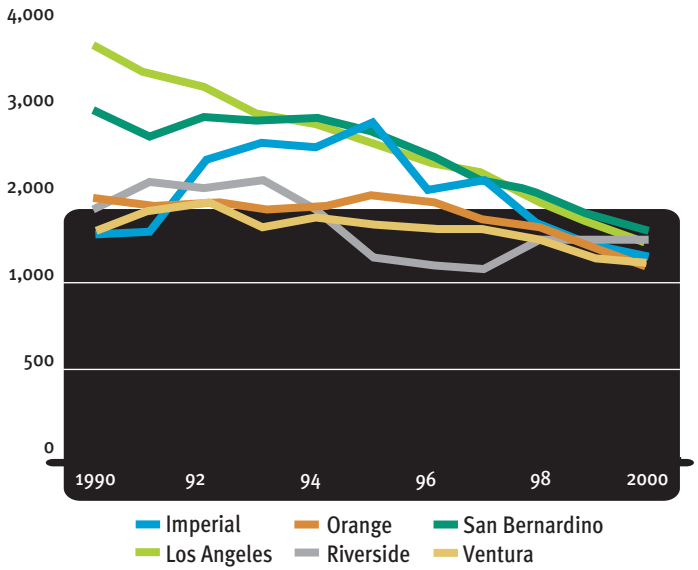
In 2001, statewide major crime rates increased by almost 4 percent. The number of homicides reported increased by 5 percent and robbery increased by about 4 percent. The number of property crimes increased by 6 percent from 2000 to 2001. The number of hate crime events increased by almost 16 percent in 2001 from the previous year.[4]

Juvenile felony arrests rates declined between 1990 and 2000 in every county in the region (Figure 66). A felony offense is defined as a crime which is punishable by death or by imprisonment in a state prison. Gaps among the counties in juvenile arrest rates were significantly narrowed at the end of the decade. Statewide data showed that felony arrest rates for California's juveniles also displayed significant racial and ethnic disparities. The arrest rate for African American juveniles was more than three times higher than other juveniles.[5] The juvenile arrest rate has been higher than the adult arrest rate since 1990.[6] The arrest rate for property offenses and robberies is twice as high for juveniles than for adults.[7]

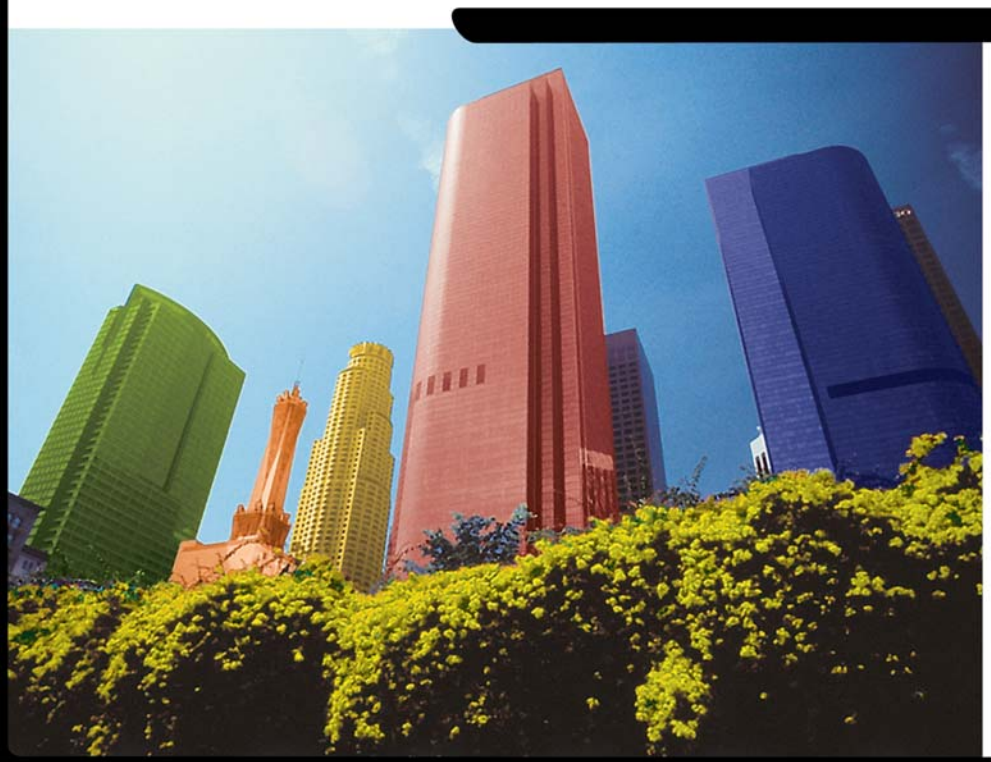
Figure 66

Juvenile Felony Arrests

Per 100,000 Population Aged 10-17



Source: California Department of Justice



In 2000, the region was the second most populous region in the nation, second only to New York

METROPOLITAN REGIONS

METROPOLITAN REGIONS

In order to fully assess the progress of our region, it is useful to compare the performance of our region with that of other regions. This section compares the SCAG Region to the other eight largest metropolitan regions in the nation.

Figure 67
Population by Metropolitan Region

Rank	Metropolitan Region Name	Population 1990	Population 2000	Population Increase 1990 to 2000 Number	Population Increase 1990 to 2000 Percent
1	New York/No. New Jersey/ Long Island, NY/NJ/CT/PA CMSA	19,549,649	21,199,865	1,650,216	8.4%
2	SCAG REGION*	14,640,832	16,516,006	1,875,174	12.8%
3	Chicago/Gary/Kenosha, IL/IN/WI CMSA	8,239,820	9,157,540	917,720	11.1%
4	Washington/Baltimore, DC/MD/VA/WV CMSA	6,727,050	7,608,070	881,020	13.1%
5	San Francisco/Oakland/ San Jose, CA CMSA	6,253,311	7,039,362	786,051	12.6%
6	Philadelphia/Wilmington/ Atlantic City, PA/NJ/DE/MD CMSA	5,892,937	6,188,463	295,526	5.0%
7	Boston/Worcester/Lawrence, MA/NH/ME/CT CMSA	5,455,403	5,819,100	363,697	6.7%
8	Detroit/Ann Arbor/Flint, MI CMSA	5,187,171	5,456,428	269,257	5.2%
9	Dallas/Fort Worth, TX CMSA	4,037,282	5,221,801	1,184,519	29.3%

**The SCAG Region includes Imperial, Los Angeles, Orange, Riverside, San Bernardino and Ventura Counties. Except for Imperial County, the other five counties belong to the Los Angeles-Riverside-Orange Consolidated Metropolitan Statistical Area (CMSA).*

Source: 1990 and 2000 Census

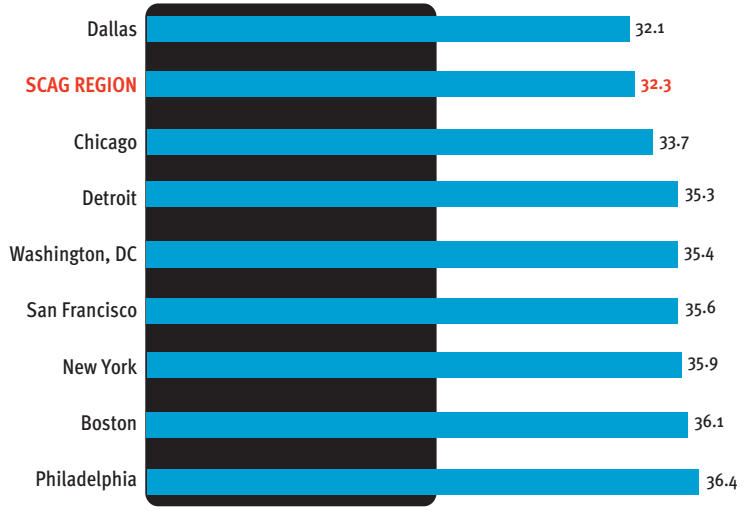
Socio-Economic Indicators

Population

In 2000, the SCAG Region was the second most populous region in the nation, second only to New York. Between 1990 and 2000, the region had the largest population increase, about 1.9 million, and the third highest growth rate after Dallas and Washington.

Among the nine largest metropolitan regions in the nation, Southern California had the second youngest median age, just behind the Dallas Region.

Figure 68
Median Age by Metropolitan Region

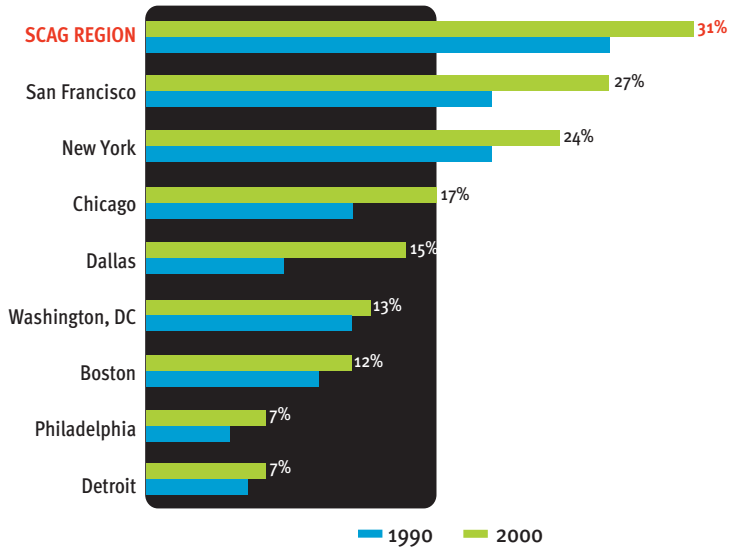


Source: 2000 Census

Gateway Region

Southern California is one of the most dynamic gateway regions in the nation and the world, due to its high proportion of foreign-born population and its leading position in international trade. In 2000, the region had the highest percentage of foreign-born population among the largest metropolitan regions. About one in every six foreign-born residents in the nation lives in Southern California.

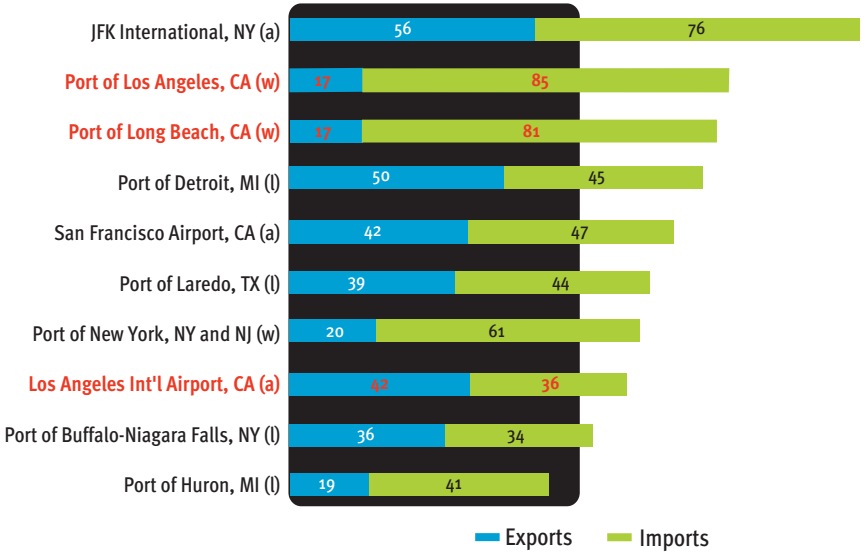
Figure 69
Foreign-Born Population by Metropolitan Region



Source: 1990 and 2000 Census

The region contains three of the top ten international trade gateways in the nation. In 2000, the Ports of Los Angeles and Long Beach ranked second and third respectively, while Los Angeles International Airport ranked as the eighth largest.

Figure 70
Top 10 International Trade Gateways in US
2000 (Billions)



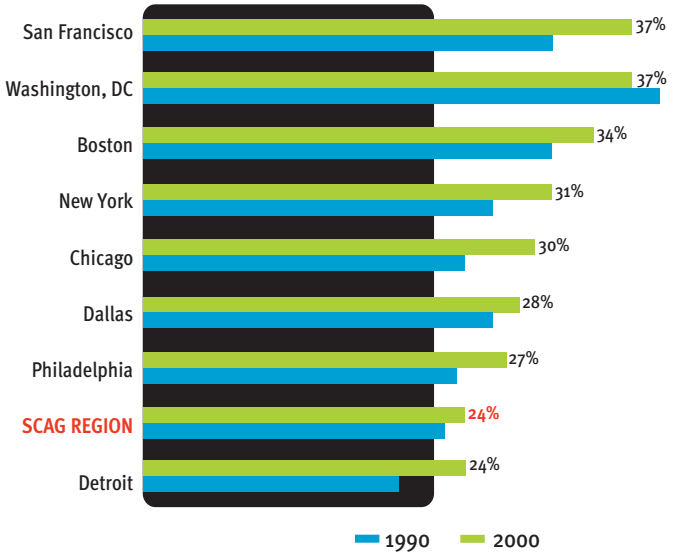
Key: a = air; l = land; w = water

Source: Bureau of Transportation Statistics (2002). Pocket Guide to Transportation.

Educational Attainment

As to the educational attainment of its residents, the region ranked eighth among the nine largest metropolitan regions in the nation in 2000 for bachelor's degrees or higher. The region ranked last in the attainment of high school diplomas or higher.

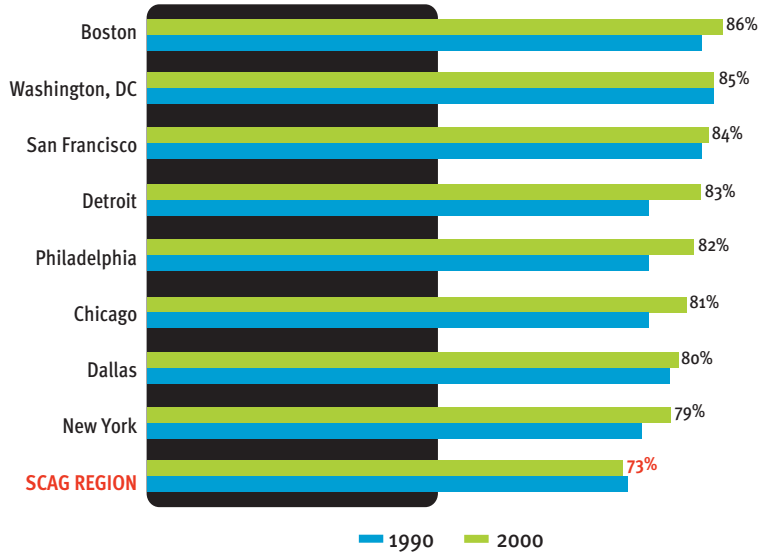
Figure 71
Educational Attainment by Metropolitan Region
(Bachelor's Degree or Higher*)



Percent of persons 25 years and over

Source: 1990 and 2000 Census

Figure 72
Educational Attainment by Metropolitan Region
(High School Diploma or Higher*)



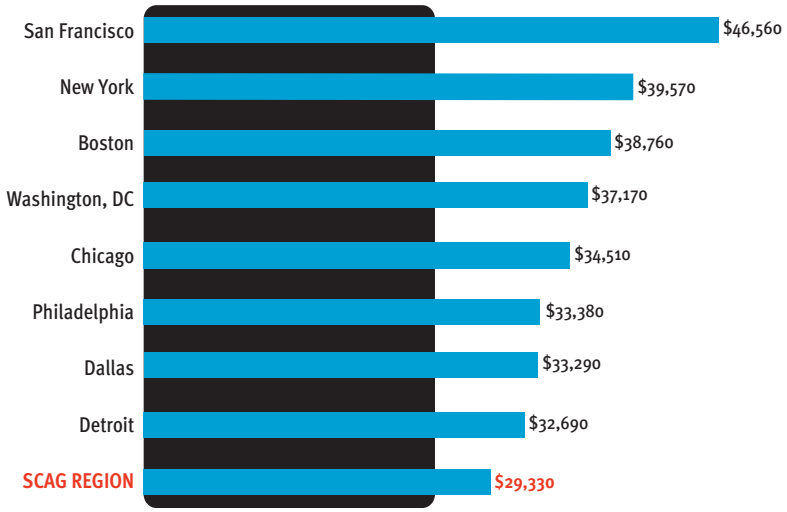
Percent of persons 25 years and over

Source: 1990 and 2000 Census

Income

The region's per capita income in 2000 was $29,330, the lowest among the largest metropolitan regions, compared to $46,560 for the San Francisco Bay Area.

Figure 73
Per Capital Personal Income by Metropolitan Region
2000

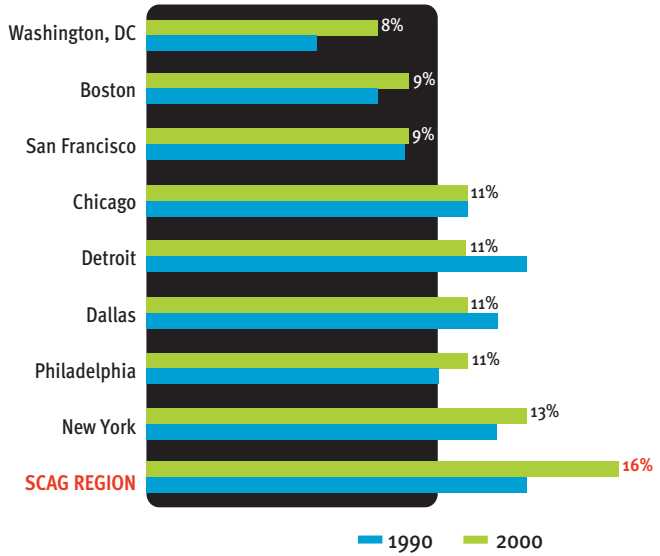


Source: US Bureau of Economic Analysis

Poverty

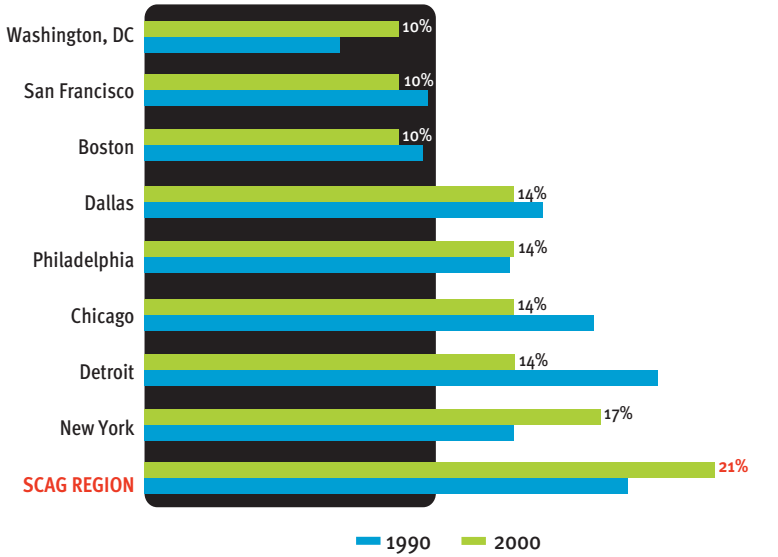
The region had the highest poverty rate among persons of all ages as well as children under 18. Unlike Southern California, many of the largest metropolitan regions made improvements in reducing poverty rates, particularly for children under 18 during the 1990s.

Figure 74
Persons in Poverty by Metropolitan Region
(Percent)



Source: 1990 and 2000 Census

Figure 75
Children (Under 18) in Poverty by Metropolitan Region
(Percent)

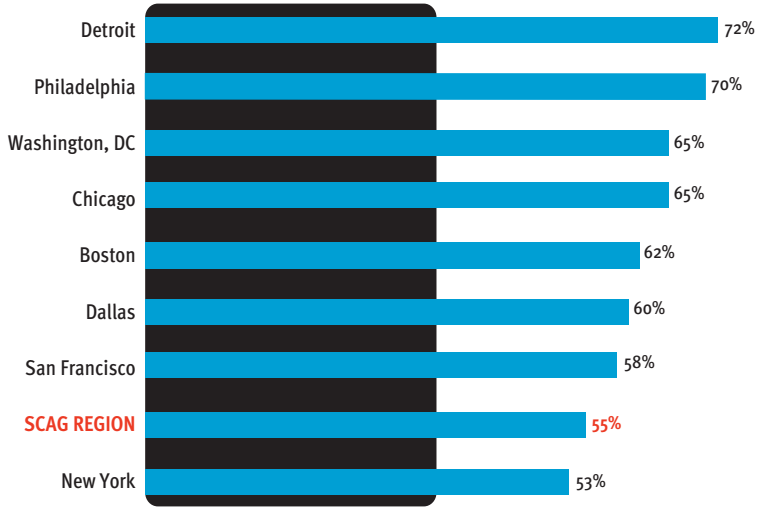


Source: 1990 and 2000 Census

Homeownership

The region's homeownership rate of 55 percent in 2000 ranked eighth among the largest metropolitan regions, only ahead of New York. The San Francisco Bay Area, though famous for its high housing price, actually achieved a 58 percent homeownership rate, surpassing Southern California.

Figure 76
Homeownership by Metropolitan Region
2000

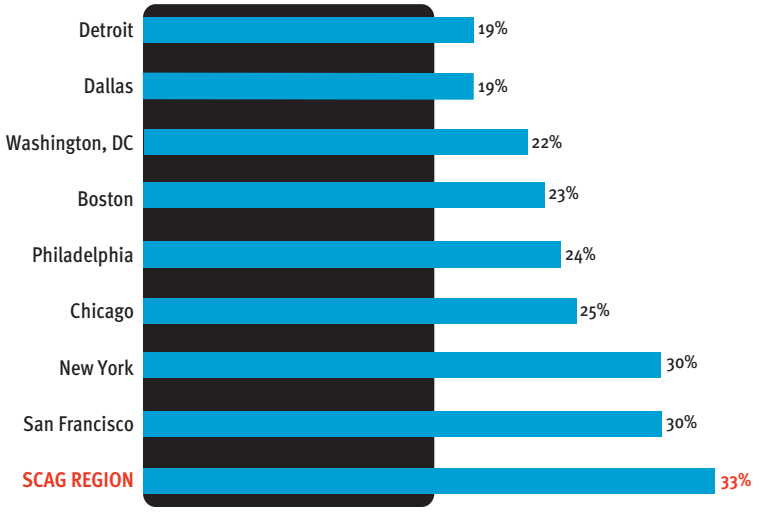


Source: 2000 Census

Housing Affordability

The region had the highest percentage (33 percent) of owner-households with housing costs greater than 30 percent of the total household income.

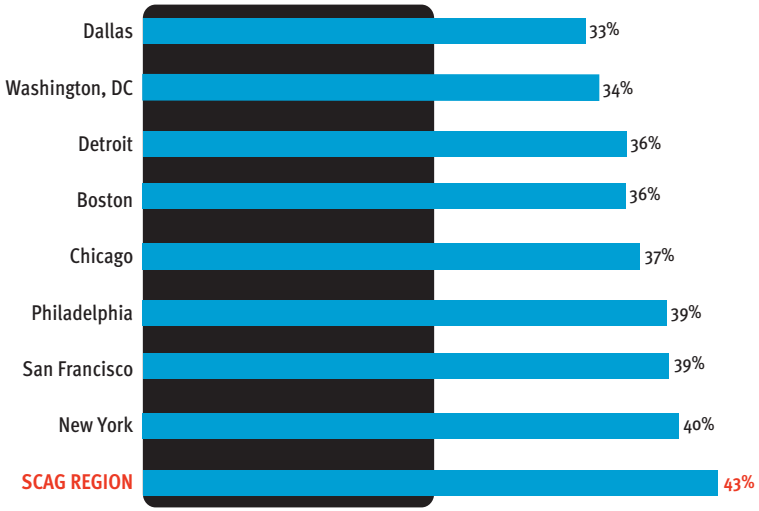
Figure 77
Housing Cost Burden by Metropolitan Region
1999 (Owners with Cost Above 30 Percent of Household Income)



Source: 2000 Census

In addition, 43 percent of renter-households in the region had housing costs greater than 30 percent of the household income, the highest in the nation. Finally, in both measures, Southern California had a higher housing cost burden than both the New York Metropolitan Region and the San Francisco Bay Area.

Figure 78
Rental Cost Burden by Metropolitan Region
1999 (Renters with Cost Above 30 Percent of Household Income)

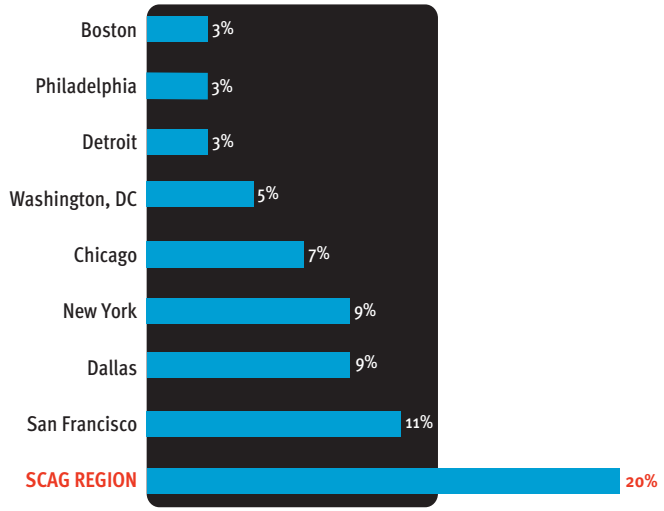


Source: 2000 Census

Housing Crowding

Southern California had the most crowded housing (20 percent). San Francisco Bay Area had the second highest with 11 percent. In addition, seven of the nine largest metropolitan regions had less than 10 percent of their housing falling into the crowded housing category.

Figure 79
Crowded Housing by Metropolitan Region
2000 (Percent of Housing with More Than One Person per Room)



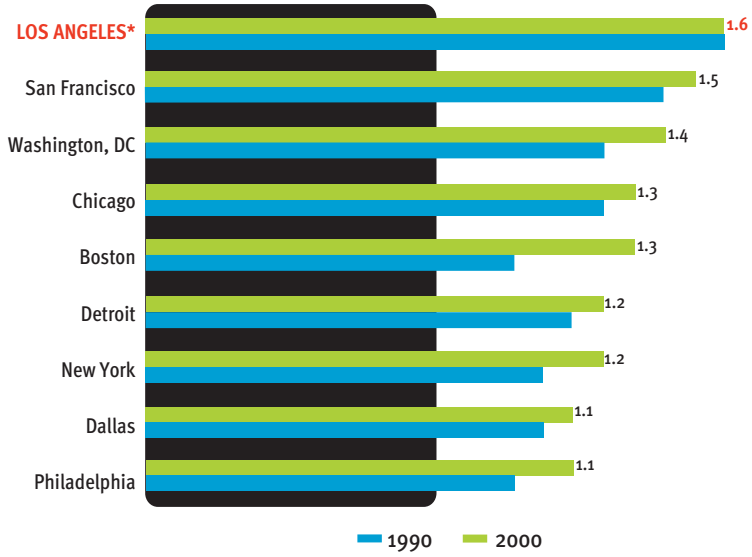
Source: 2000 Census

Transportation

Highway Congestion

Los Angeles and Orange Counties together ranked as the most congested metropolitan area in the nation in 1990 and in 2000 based on a Roadway Congestion Index. While the congestion index in all the other large metropolitan areas increased significantly during the 1990s, Los Angeles maintained its congestion index level. In 2000, the Los Angeles metropolitan area also had the highest annual hours of congestion delay, as well as congestion cost per person.

Figure 80
Roadway Congestion by Metropolitan Area

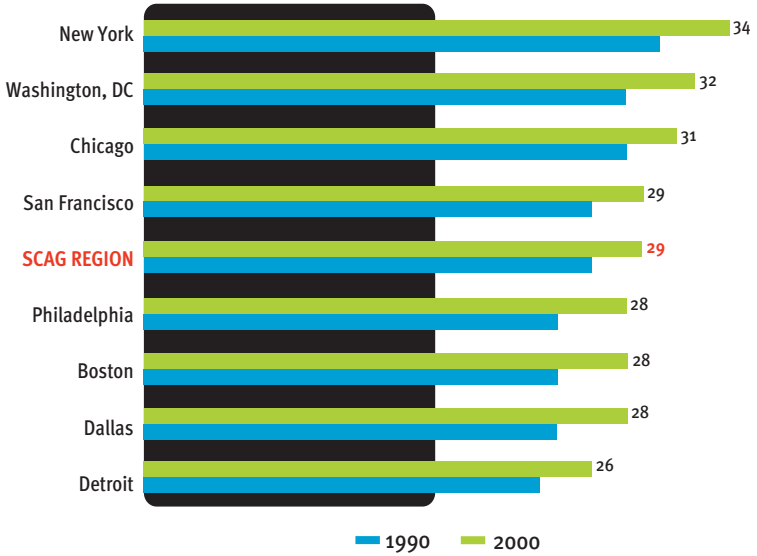


Includes Los Angeles and Orange Counties only
Source: Texas Transportation Institute

Journey to Work: Travel Time

The region's average travel time to work increased by about 3 minutes, from 26 to 29 minutes, and ranked fifth highest among the nine largest metropolitan regions.

Figure 81
Average Travel Time to Work by Metropolitan Region
(Minutes)

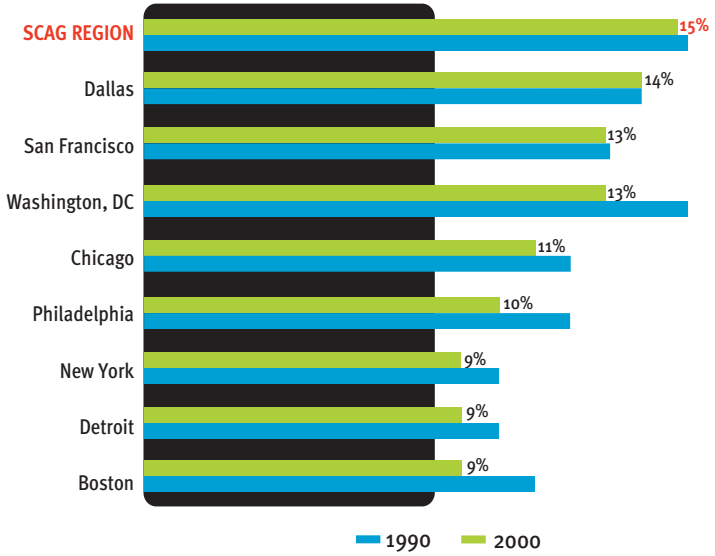


Source: 1990 and 2000 Census

Journey to Work: Mode Choice

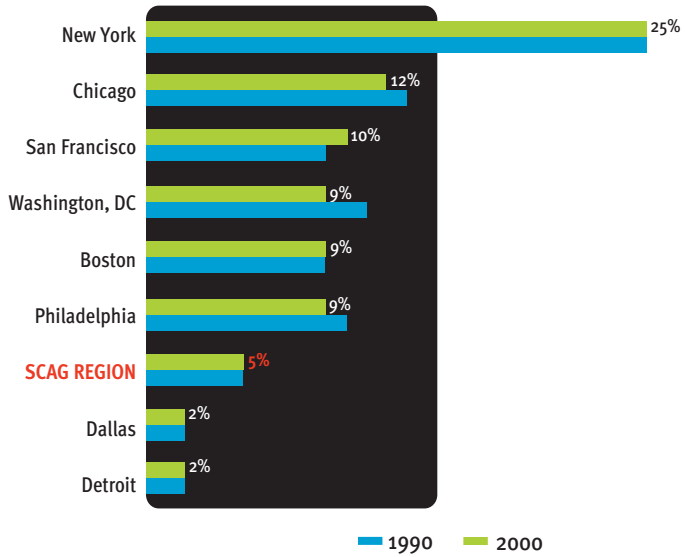
The region had the highest share of residents who carpooled to work.

Figure 82
Carpooled to Work by Metropolitan Region
(Percent of Workers 16 Years and Over)



Source: 1990 and 2000 Census

Figure 83
Transit to Work by Metropolitan Region
(Percent of Workers 16 Years and Over)



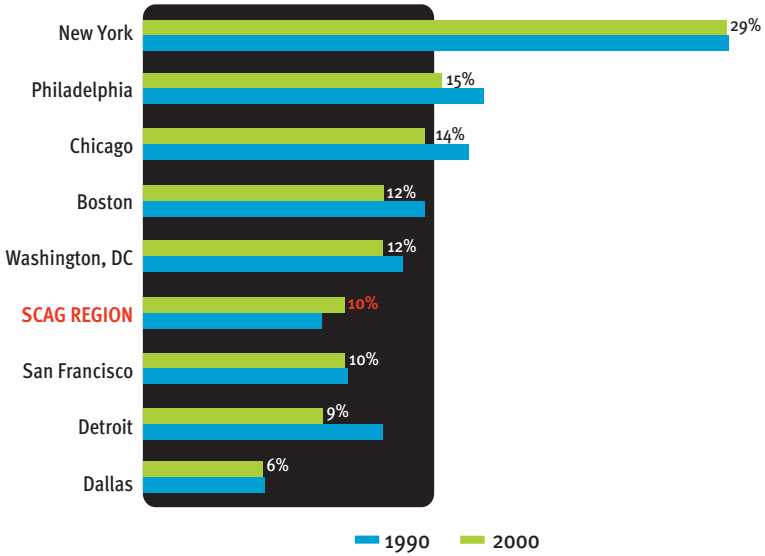
Source: 1990 and 2000 Census

The region ranked 7th as to the percent of residents who used transit in their journey to work, only ahead of the Dallas and Detroit regions.

Households Without a Car

Contrary to the national trend, the percentage of households without a car in the region actually increased during the 1990s.

Figure 84
Households Without a Car by Metropolitan Region
(Percent)



Source: 1990 and 2000 Census

NOTES

Population

1. Specifically, the Inland Empire's population grew by a phenomenal 66 percent during the 1980s and 26 percent during the 1990s, both were the highest among the nine subareas in California. See Johnson, Hans P. 2002. *A State of Diversity: Demographic Trends in California's Regions*, Table 2, p. 6, Public Policy Institute of California.

2. Southern California Association of Governments. 1995. *Migration in the Southern California Region*.

3. 2000 Census.

4. It is important to note that the immigrant population, after they have settled longer in the region, tend to have gradual improvements in the socioeconomic well-being. However, even after 20 years of improvements, the immigrant population still lags behind the native-born population in their socioeconomic well-being. For an illustration of this slow upward mobility process in the area of poverty, please see Figure 6a, page 94.

5. 1990 and 2000 Census.

The Economy

1. U.S. Bureau of Economic Analysis. 2001. *Regional Economic Information System*, Table CA05.2.

2. For total nonfarm wage and salary employment, also see Langdon, David S. et al. 2002. *"U.S. Labor Market in 2001: Economy Enters a Recession", Monthly Labor Review, February 2002*.

3. California State University, Long Beach. 2002. *2002-2003 Economic Forecast – Southern California and Its Counties*.

4. California Employment Development Department (EDD), *Labor Market Information*.

5. Data on employment increase is from the California EDD except that for direct international trade employment, data is from the *International Trade Trends and Impacts, the Los Angeles Region* published by the Los Angeles Economic Development Corporation, 2002. Direct international trade employment involves activities related to moving commodities in and out of the customs district and does not include any manufacturing activities. Also the region's employment in Apparel and Textile industries, though it had a net increase of 20,000 jobs during the 1990s, reached its peak in 1997 and has begun to decline ever since.

6. California State University, Long Beach. *2002*. *2002-2003 Economic Forecast – Southern California and Its Counties*.

7. California EDD. 2002. *The State of the State's Labor Market: A Labor Day Briefing for California*.

8. California EDD. *Labor Market Information*.

9. Reyes, Belinda I., Editor. 2001. *A Portrait of Race and Ethnicity in California: An Assessment of Social and Economic Well-Being*, Public Policy Institute of California, p. 140.

10. Council of Economic Advisors. 1998. *Changing America: Indicator of Social and Economic Well-Being by Race and Hispanic Origin*.

11. Reyes, Belinda I., op cited.

12. All taxable sales data in this section are from the California State Board of Equalization.

13. Southern California Association of Governments. 1989. *International Trade and Goods Movement: The Southern California Experience and Its Future*.

14. Lowenthal, Abraham F., et al. *Strengthening Southern California's International Connections: Trade and Investment Aspects*, Pacific Council on International Policy, prepared for the University of Southern California, Southern California Studies Center.

15. Lowenthal, Abraham R., et al. estimated that more than 56 percent of the total trade through LACD was due to transshipment in 1994. Since then, imports through LACD have increased significantly from $130 billion to $200 billion largely to satisfy additional national demand outside of the SCAG Region. Hence, the original 56 percent would be an underestimate for 2001.

16. Treverton, Gregory F. 2001. *Making the Most of Southern California's Global Engagement*, Pacific Council on International Policy, p. 7.

17. Los Angeles Economic Development Corporation. 2002. *International Trade Trends and Impacts, the Los Angeles Region*.

Housing

1. U.S. Census Bureau. 2001. *Population Profile of the United States: 2000*, p. 12-4.

2. California Department of Housing and Community Development based on HUD CHAS-CD and 1990 Census. It should be noted that the median household income in the region declined in 2000 from 1990.

3. California Budget Project based on 2000 Current Population Survey.

4. U.S. Bureau of Labor Statistics. 2002. *Consumer Spending Patterns in the Los Angeles Consolidated Metropolitan Statistical Area (CMSA), 1999-2000*.

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1. Texas Transportation Institute. 2002. *The 2002 Urban Mobility Report*.

2. Ibid.

3. University of Southern California, Population Dynamics Group. 2001. *Demographic Futures for California*.

4. Southern California Association of Governments. 1999. *State of the Commute*, p. VII.

5. Southern California Association of Governments. 2001. *Discussion Paper on the Short-Term Economic Impacts and Potential Long-Term Implications for Regional Aviation Following the September 11 Events*.

6. Airports Council International

7. Los Angeles Economic Development Corporation. 2002. *International Trade Trends and Impacts, the Los Angeles Region*.

8. Southern California Association of Governments. 2002. Aviation System Status (Staff Memo)

9. Los Angeles Economic Development Corporation, Ibid.

10. Center for Continuing Study of the California Economy. 2002. *California Economic Growth*, pp. 8-17.

The Environment

1. Environmental Protection Agency. 1999. *Indicators of the Environmental Impacts of Transportation*.

2. South Coast Air Quality Management District.

3. Hinds, William C., *"Particulate Air Pollution," Southern California Environmental Report Card 2001*, UCLA Institute of the Environment.

4. South Coast Air Quality Management District.

5. Hinds, William C., op cited.

6. Hinds, William C., op cited.

7. Los Angeles Department of Water and Power, available: http://www.ladwp.com; and the Metropolitan Water District.

8. Metropolitan Water District; estimates based on SCAG data and DOF reports; does not reflect 2000 census data.

9. Dorfman, Mark. 2002. *Testing the Waters XII: A Guide to Water Quality at Vacation Beaches*, Natural Resources Defense Council.

10. Ibid.

11. The California Department of Conservation, Farmland Mapping and Monitoring Program, available: www.consrv.ca.gov/DLRP/fmmp.

12. Ibid.

13. California Environmental Protection Agency (April 2002), *Environmental Protection Indicators for California (EPIC)*.

14. California Integrated Waste Management Board.

15. California Integrated Waste Management Board, available: www.ciwmb.ca.gov/Landfills/tonnage. The CIWMB obtains disposal information from returns filed with the California State Board of Equalization by disposal facility (landfill) operators. The figures reflect the amount of waste that is landfilled, or disposed of, in the SCAG region, as reported by each facility operator, rather than the total amount of waste generated in the region. In addition, the figures do not reflect inert waste disposed of by

facilities that accept inert waste exclusively on lands where surface mining operations were conducted when the disposal is for purposes of reclamation, as specified.

16. California Energy Demand Forecast, September 2001.

17. San Diego Gas & Electric serves a small number of customers in South Orange County.

18. California Energy Commission. 2001. *California Energy Demand 2002-2012 Forecast*.

19. Southern California Edison and Southern California Public Power Authority.

20. California Energy Demand 2000-2010, June 2000. These data do not include natural gas burned for electricity generation.

21. California Energy Commission.

Quality of Life

1. Marowitz, Leonard A. 2001. *Why Did the Crime Rate Decrease Through 1999? (And Why Might It Decrease or Increase in 2000 and Beyond?)*, California Department of Justice.

2. California Department of Justice, *Reported Crime and Crime Rates by Category and Crime*.

3. California Department of Justice, *Crime in California, 2000*.

4. California Department of Justice, *Crime and Delinquency in California, 2001*.

5. California Department of Justice, *Report on Juvenile Felony Arrests in California, 1998*.

6. Ibid.

7. Ibid.

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72. Educational Attainment by Metropolitan Region (High School Diploma or Higher)

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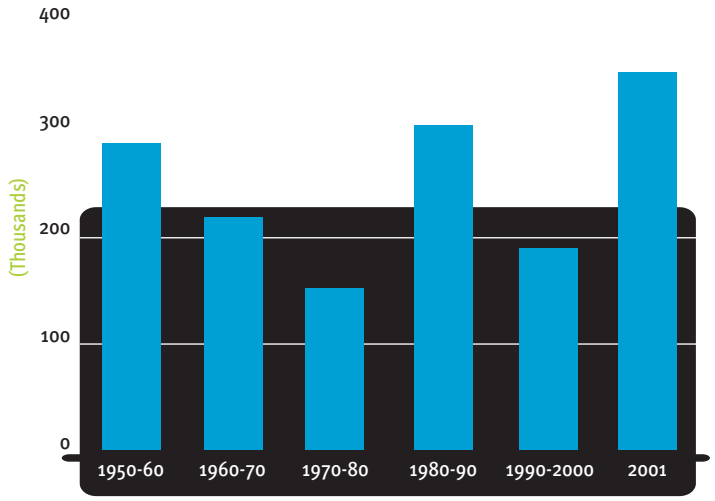
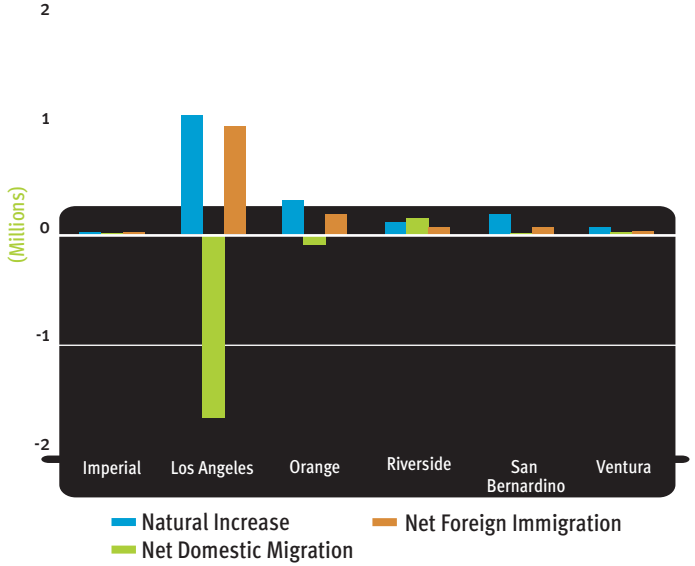
APPENDIX OF ADDITIONAL FIGURES

Figure 1a
Average Annual Population Increase



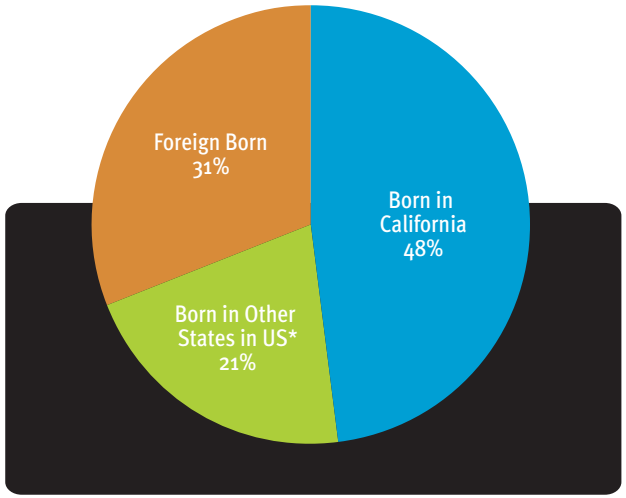
Source: US Census Bureau, California Department of Finance

Figure 3a
Population Growth – Components by County
1990-2000



Source: California Department of Finance

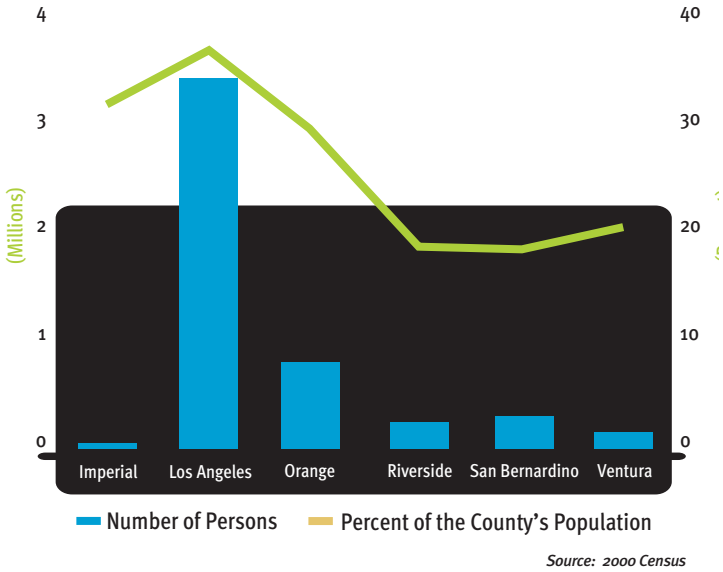
Figure 4a
Place of Birth of Population
2000



**Includes 1% representing persons born in Puerto Rico, US island areas and born abroad of American parent(s)*

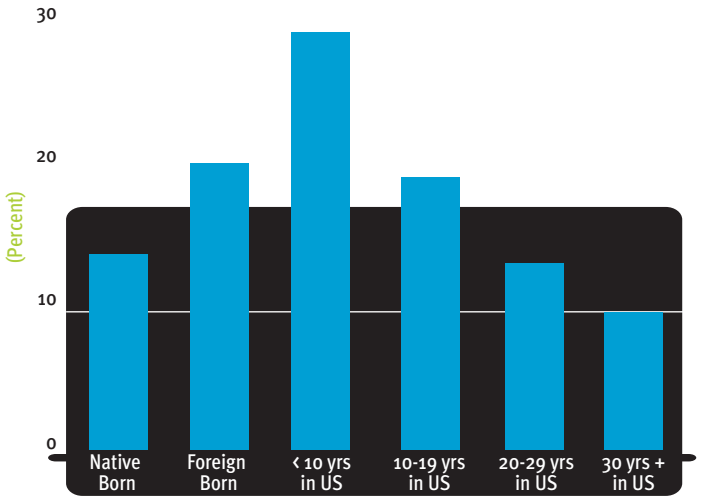
Source: 2000 Census

Figure 4b
Foreign-Born Population by County
2000



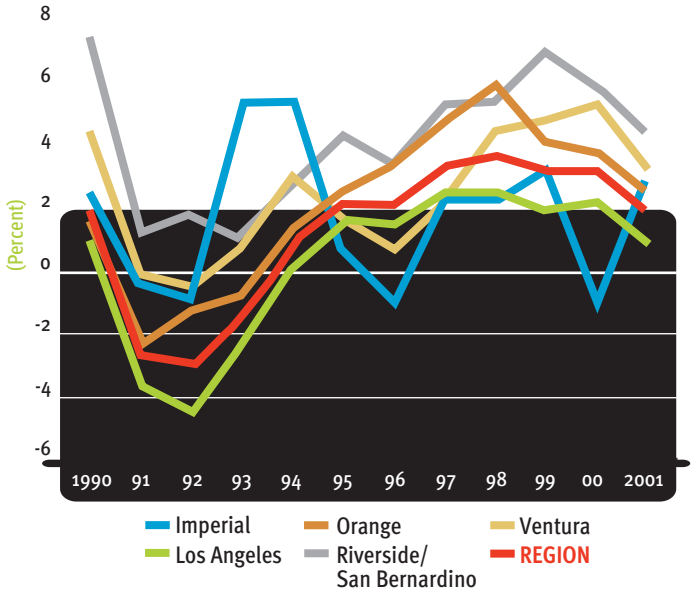
Source: 2000 Census

Figure 6a
Persons Below Poverty in California
2000



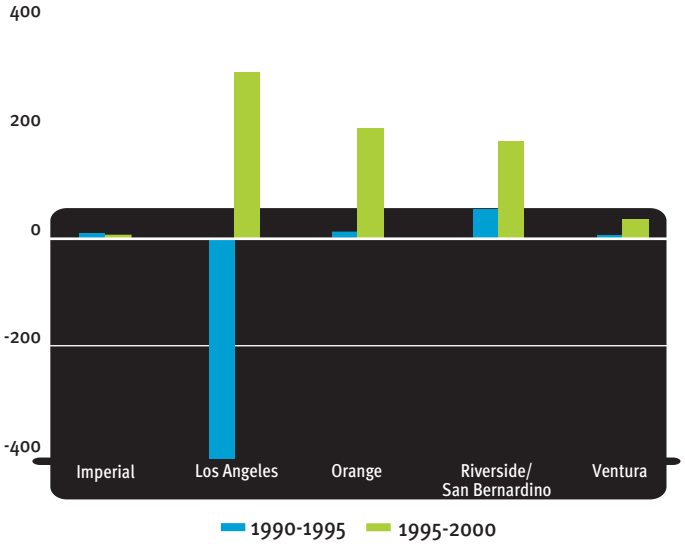
Source: USC, Population Dynamics Group, 2001.
"Demographic Futures for California," based on data in the Current Population Survey 2000.

Figure 12a
Wage and Salary Employment
Percent Change from Previous Year



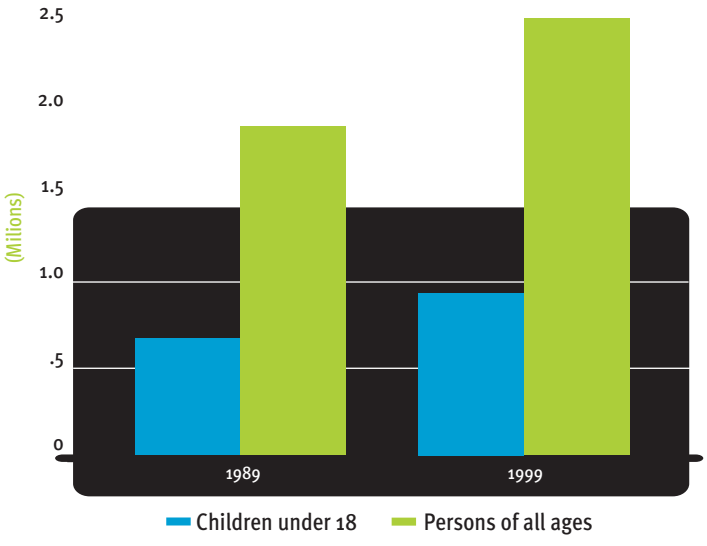
Source: California Employment Development Department

Figure 13a
Employment Change by County
(000)



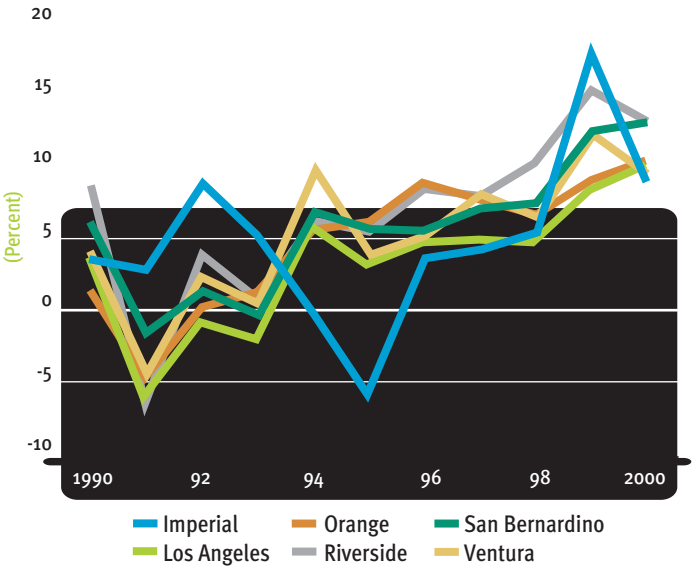
Source: California Employment Development Department

Figure 27a
Poverty Population



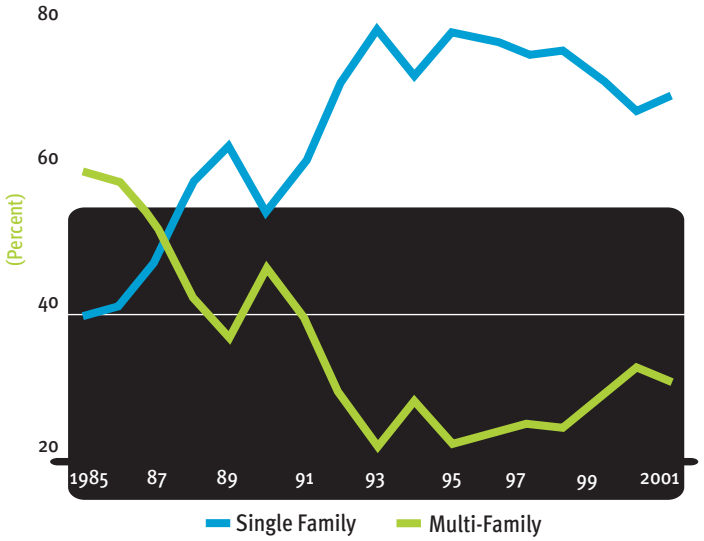
Source: 1990 and 2000 Census

Figure 29a
Taxable Sales
(Changes from Previous Year)



Source: California State Board of Equalization

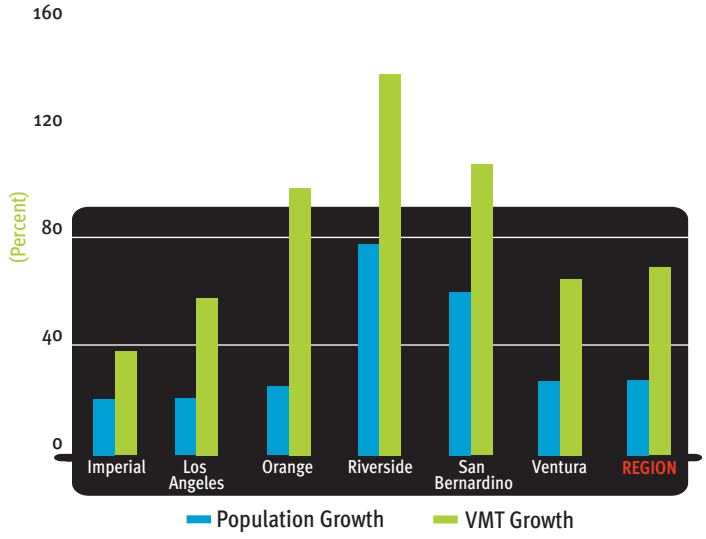
Figure 34a
Composition of Residential Units*



** Based on annual building permits issued*

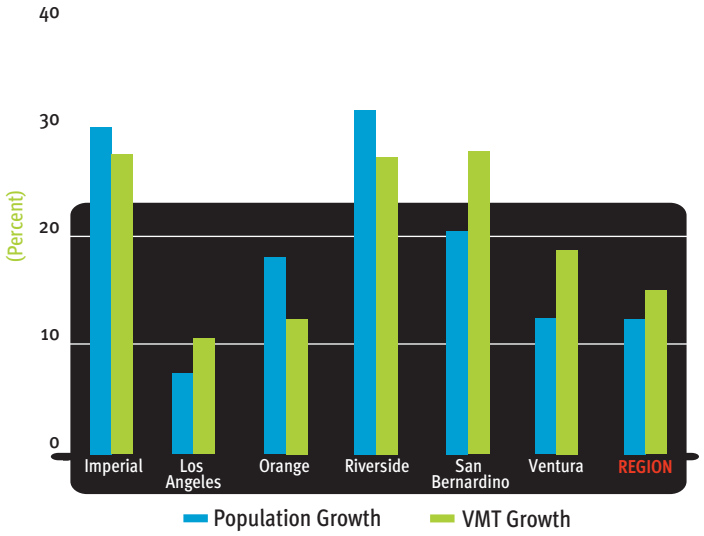
Source: Construction Industry Research Board

Figure 41a
Population Growth vs. VMT Growth by County
1980-1990



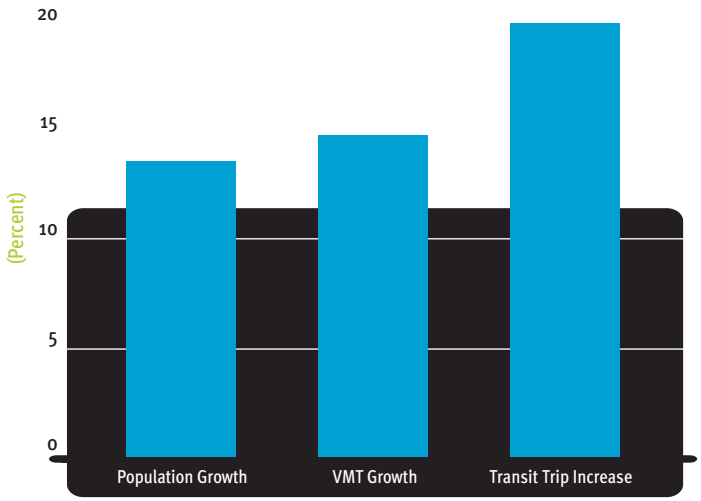
Source: California Department of Transportation

Figure 41b
Population Growth vs. VMT Growth by County
1990-2000



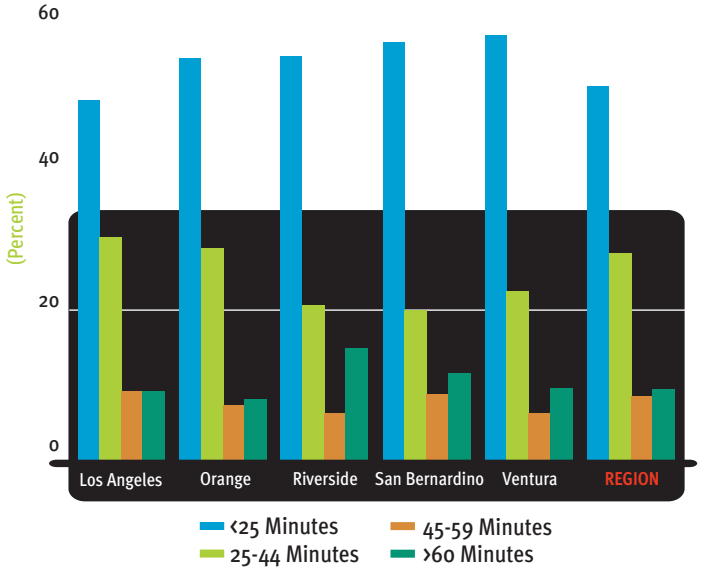
Source: California Department of Transportation

Figure 42a
Population, VMT and Transit Trips
Percent Increase, 1990-2000



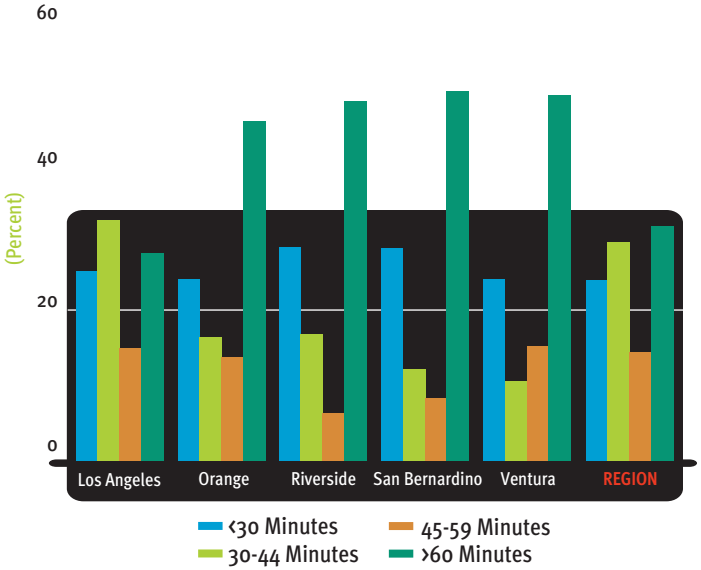
Source: 1990 and 2000 Census, California Department of Transportation and National Transit Database

Figure 45a
Travel Time to Work by All Modes
2000



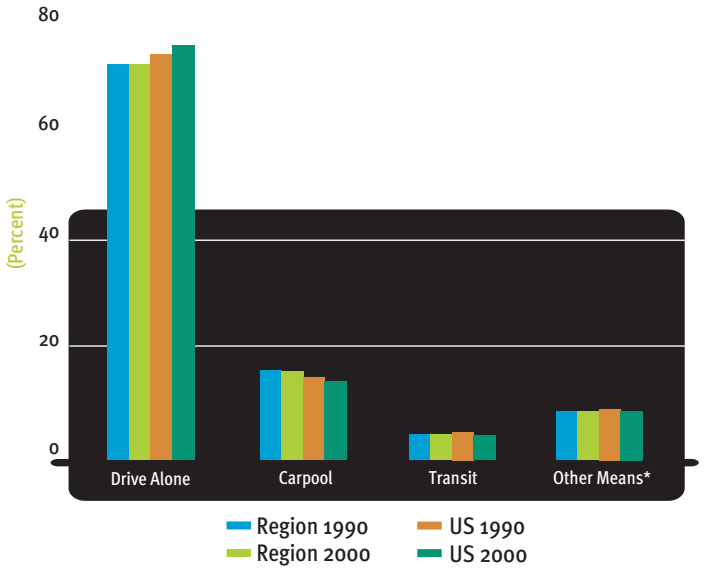
Source: 2000 Census Supplemental Survey. Imperial County data not available.

Figure 45b
Travel Time to Work by Transit
2000



Source: 2000 Census Supplemental Survey. Imperial County data not available.

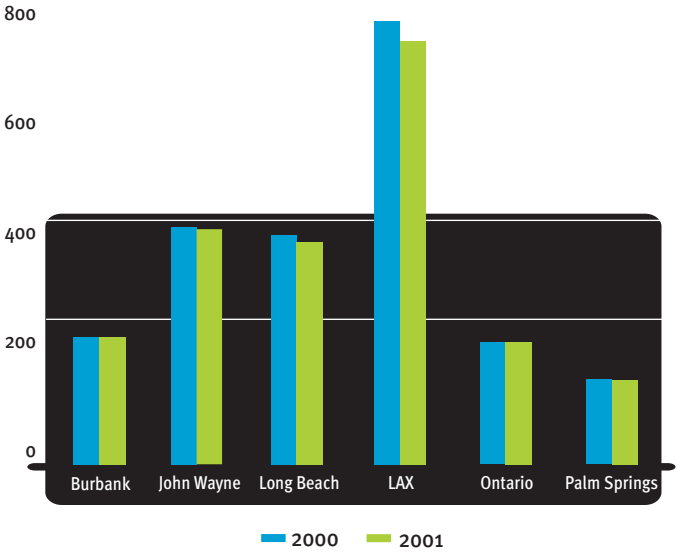
Figure 46a
Mode Choice to Work
(Workers 16 Years and Over)



**Other Means include bicycling, walking and working at home*

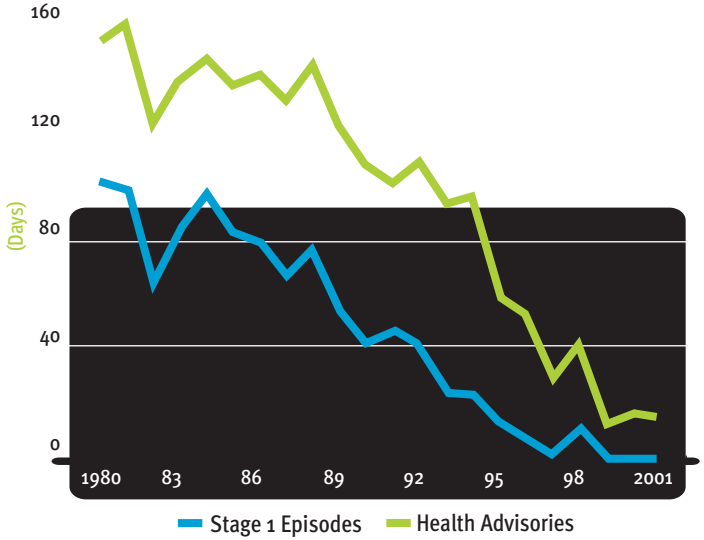
Source: 1990 and 2000 Census

Figure 50a
Aircraft Operations by Airport
Departures and Arrivals (000)



Source: SCAG gathered data

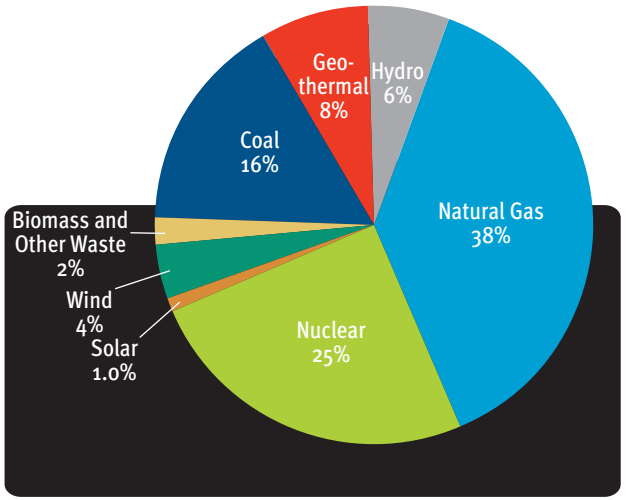
Figure 53a
Progress in Reducing Ozone Pollution



Note: Data represents the number of days a standard was exceeded anywhere in the South Coast Air Basin

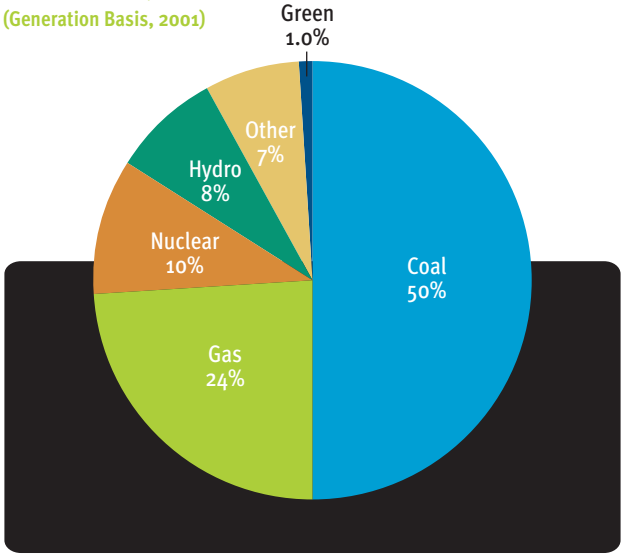
Source: South Coast Air Quality Management District

Figure 6oa
Southern California Edison Energy Mix
(Generation Basis, 2002 projected)



Source: Southern California Edison, June, 2002

Figure 6ob
SCPPA Energy Mix
(Generation Basis, 2001)



Source: SCPPA. April, 2002

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Mission Statement

Leadership Vision Progress

Leadership, vision and **progress** which promote economic growth, personal well-being, and livable communities for all Southern Californians.

The Association will accomplish this Mission by:

- Developing long-range regional plans and strategies that provide for efficient movement of people, goods and information; enhance economic growth and international trade; and improve the environment and quality of life.
- Providing quality information services and analysis for the region.
- Using an inclusive decision-making process that resolves conflicts and encourages trust.
- Creating an educational and work environment that cultivates creativity, initiative, and opportunity.

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