THE STATE OF THE REGION 2005

Measuring Regional Progress

SOUTHERN CALIFORNIA ASSOCIATION OF GOVERNMENTS

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Principal Author:
PING CHANG, Lead Regional Planner

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PREFACE

Since its formation four decades ago in 1965, the Southern California Association of Governments (SCAG) has been working with local governments, public agencies and many other partners to develop a shared regional vision and to collaboratively resolve regional challenges. The SCAG region, also referred to in this report as Southern California, includes six counties (Imperial, Los Angeles, Orange, Riverside, San Bernardino and Ventura) and 187 cities. As a global gateway for international trade and international migration, Southern California is one of the most dynamic metropolitan regions in the world. Currently, the region would rank 10th among all national economies.

Over the past few decades, the SCAG region has experienced significant growth as well as changes in many dimensions including its demographic characteristics and economic base. The region has been facing tremendous challenges in regaining its economic competitiveness, ensuring environmental sustainability and providing residents equal access to resources and opportunities.

The State of the Region 2005 tracks Southern California's progress in achieving the goals in SCAG's *Regional Comprehensive Plan and Guide*. It compares the recent performance of our region with its own previous records and that of other large U.S. metropolitan areas. The report is intended to raise awareness and engage the public about vital issues affecting our shared future. In addition, it aims at assisting policy makers, business and community leaders in assessing our region's position and progress and informing policy deliberations.

Preparation for the 2005 Report was guided by SCAG's Benchmarks Task Force, consisting of local elected officials and regional issue experts in Southern California. While this 2005 Report was prepared as a stand-alone document, readers will find it beneficial to also refer to previous State of the Region reports for more detailed background information. These reports have been posted on the SCAG website at **www.scag.ca.gov/publications**.

EXECUTIVE SUMMARY

As documented in the previous State of the Region Reports, the SCAG region lost significant ground during the 1990s due to major demographic and economic transformations. The severe recession in the early 1990s causing the loss of a quarter million high wage manufacturing jobs, the unprecedented domestic outmigration of more than 1.2 million residents leaving Southern California, and an almost equal influx of immigrants significantly impacted the performance of the region.[1]

Since 2000, though the region did not achieve any meaningful growth in employment and per capita income until 2004, it has performed somewhat better than the rest of the nation. The 2001 national recession impacted other large metropolitan regions more severely than the SCAG region. It took both the region and the nation fully three years to finally achieve a noticeable recovery in 2004. Since the 2001 recession, the dynamics of the housing market have generated broader impacts on the region's performance in employment, income, homeownership and housing affordability. As discussed further in this Executive Summary, these broader impacts stemmed from interrelationships between continuing population growth, 40-year low mortgage interest rates, accumulated high housing deficits, and the economic recovery process, among other factors.

This State of the Region Report focuses on the performance of Southern California since 2000, particularly during the year 2004. Highlights of the findings are summarized below, and discussed in depth in the main report.

1. The region continued a faster pace of population growth than almost all other large metropolitan regions in the nation. It also continued the demographic transformation in the ethnic composition, longer settlement of the foreign-born population, and growing population share of immigrants' second generation descendants.

During 2004, the SCAG region continued to grow significantly with an increase of 284,000 residents, just over 10 percent of the nation's total population growth. Population of the region topped 18 million, and would rank fourth among all states following California, Texas and New York but ahead of Florida. The region continues to grow at faster rates than the rest of the state and the nation. Between 2000 and 2004, the average annual growth of 320,000 residents was among the highest in the region's history.

Population growth in the region in 2004 accounted for 53 percent of the total increase in the state. The Inland Empire (Riverside and San Bernardino counties), with only 21 percent of the region's total population, captured 42 percent of the total growth. Close to half (49 percent) of the growth in the region was due to natural increase, 40 percent from net foreign immigration, and 11 percent from net domestic migration.

As to the transformation in ethnic composition, between 1960 and 2004, the share of the Hispanic population increased from 10 percent to 43 percent while the share of the Asian population increased from 2 percent to just over 11 percent. During the same period, the share of the non-Hispanic White population declined dramatically from about

80 percent to 37 percent. The share of the African American population, though it increased between 1960 and 1980 from 6.4 percent to 9.2 percent, dropped below 7 percent in 2004.

Another important demographic dynamic is that the region's immigrant population, about a third of the region's total, has achieved longer settlement. In 2000, the SCAG region experienced a decrease in the new immigrant population (defined as having arrived in the U.S. within the last 10 years) compared to 1990, reversing a steady increase since 1970. The population share of new immigrants increased from 4 percent in 1970 to 14 percent in 1990, and then decreased to 11 percent in 2000. In contrast, the share of the settled immigrant population (arrived more than 10 years ago) increased from below 6 percent in 1970 to 20 percent in 2000. The level of socioeconomic well-being (e.g. educational attainment, household income, poverty rate, homeownership rate, etc) of the immigrant population improves noticeably with length of settlement. Maturing settlement of the immigrant population could improve the region's long-term social and economic prospects particularly with supportive public policies.

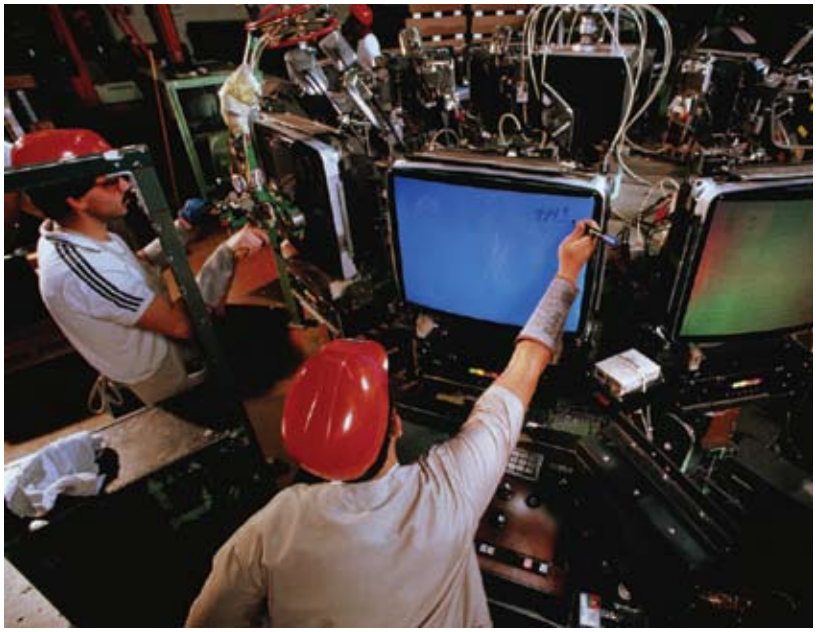
The growing share of settled immigrants also resulted in a growing share of the immigrants' second-generation, i.e. U.S-born residents with at least one foreign-born parent. In 2004, about 23 percent (or 4.3 million) of the population fell in this group. The immigrants' second-generation descendants are much younger than the rest of the population, with more than half being children under 18 years of age. Among the total child population in the region, more than 45 percent belongs to the immigrants' second generation. Accordingly, the educational and occupational attainment of the immigrants' second-generation, particularly children, will significantly impact the region's future performance.

2. The region showed solid signs of economic recovery in 2004, and achieved its first meaningful job growth (90,000 jobs or 1.3 percent growth) since 2000. More importantly, the region achieved its first gains in real per capita income (about 2 percent) and real median household income (2.6 percent) since 2000. The economic recovery was supported in important ways by the sharp rise in residential construction and investment as well as consumer spending fueled by the significant increase in home equity.

In 2004, there were clear signs of economic recovery in the region based on its performance in the job market and income growth. Total job increase of 90,000 was the largest since 2000 after two years of little growth. In addition, the region achieved a higher rate of job growth (1.3 percent) than that of the rest of the state (0.6 percent) and the nation (1.1 percent)

Recovery in the job market in 2004 was broad-based with nine of the twelve economic sectors contributing to the job increases. Rebound of the basic industries such as travel and tourism, professional services, and the stabilization of the information and manufacturing sectors contributed to the recovery. Population increase of 284,000 in 2004 also contributed to the continuing growth of the population-serving sectors such as retail, health care and housing construction.

The housing sector contributed significantly to the economic recovery in two important ways. First, the higher level of housing construction-related activities increased the employment in the construction, financial services and retail sectors (e.g. house furniture and other equipments). Second, increase in household wealth due to higher home equity has fueled consumer spending that also facilitated the economic recovery. Based on national data, home equity cash out



went from less than $30 billion in 2000 to about $140 billion in 2004. Since the 2001 recession, housing-related sectors contributed much more significantly to job growth and economic recovery in the SCAG region than in the rest of the nation.

Between 2003 and 2004, the unemployment rate in the region, though it declined from 6.2 to 6 percent, continued to be higher than the national average (5.5 percent). Real average payroll per job in the region increased by 1.2 percent to reach $43,190 in 2004. From 2000 to 2003, average payroll per job in the SCAG region relative to the average of the 17 largest metropolitan regions increased from about 91 percent to 94 percent.

More importantly, for the first time since 2000, the region in 2004 achieved improvements in real per capita income (about 2 percent growth) as well as real median household income (2.6 percent). In

2003, per capita personal income in the SCAG region was only 85 percent of the average of the 17 largest metropolitan regions, a slight improvement from the previous year. However, 14.3 percent of residents lived in poverty in 2004, continuing to be higher than that in the state and nation. About 20 percent of children under 18 were below the poverty line. The poverty rates for all people and children under 18 in the region have remained unchanged since 2000. In 2004, the SCAG region continued to have the highest poverty rate among the nine largest metropolitan regions in the nation.

3. In 2004, the region achieved the largest number and highest valuation of residential building permits issued since 1989. Since 2000, the homeownership rates increased by almost 3 percent and reached over 57 percent in 2004 following the national trend of improvement. However, due to the much stronger demand and sharp increases in housing prices, housing affordability experienced a sharp decline throughout Southern California, reaching its lowest level since 1989.

In 2004, the region experienced the largest number of residential building permits issued (93,200 units) as well as the largest increase in permits (15,000 units or 19 percent) in a one-year period since 1989. Notably, the number of permits for multi-family units increased by 33 percent in one year. Within the region, the Inland Empire counties accounted for about 56 percent of the total permits issued. Total valuation of permits in 2004 reached over $19.3 billion, with the largest annual increase ($3.8 billion or 25 percent) since 1989. While the region's housing construction industry almost collapsed during the recession

in the early 1990s, it has been serving as an important stabilizing force to the regional economy since the 2001 recession.

Homeownership rates increased slightly to 57 percent in 2004 but continued to be significantly below the national average of 69 percent. Since 2000, the homeownership rate in the region increased by almost 3 percent while the number of homeowner households increased by about 250,000. Among the nine largest metropolitan regions in the na-

tion, only two had homeownership rates below 60 percent, the SCAG region and New York.

In 2004, the housing sector in the SCAG region experienced record home prices and the lowest level of housing affordability. Despite the continuing increase of permit activities in the past five years, housing construction continued to lag behind the ever-increasing housing demand. The stronger housing demand stemmed from 40-year low mortgage rates, the high level of population growth since 2000 and the accumulation of unmet demand (or housing deficits) since the last decade, and the wider availability and uses of non-traditional home mortgage financing. These non-traditional mortgages, including adjustable rate and interest only loans, allow buyers to borrow more money than they could with traditional mortgages but pose potential risks. Between 2001 and 2004, average home prices increased by almost 55 percent to reach historic peaks. In 2004, housing affordability experienced a sharp decline throughout Southern California and reached its lowest level since 1989. While close to 56 percent of the nation's households could afford a median-priced house in 2004, less than one-fifth of the region's households could achieve the same. Though the coastal counties had the lowest level of affordability, the sharpest decline in affordability occurred in the traditionally more affordable Inland Empire.

In 2004, over 45 percent of owner households and 54 percent of rental households had monthly costs at or greater than 30 percent of household incomes, both up by 5 percent since 2000. Among the nine largest metropolitan regions in the nation, the SCAG region continued to have the highest percentage of owner and rental households with housing cost at or greater than 30 percent of household income.

4. Rapid population growth, high dependence on automobiles, and low levels of transit usage contributed to persistently high levels of congestion. For at least the last two decades, Southern California has been consistently ranked as the most congested region in the nation. Though the region's core area (south Los Angeles and north Orange counties) had the highest level of congestion delay, the Inland Empire has been experiencing a faster increase in the level of congestion delay. Between 2000 and 2004, carpooling share of work trips dropped by almost 3 percent with corresponding increases in drive-alone commuting.

As a major gateway for international trade reliant on effective transportation, Southern California has been experiencing very high levels of congestion. Contributing factors include large population and physical extent of the region, rapid population growth, high automobile dependence, low levels of transit usage, and a maturing regional highway system with limited options for expansion.

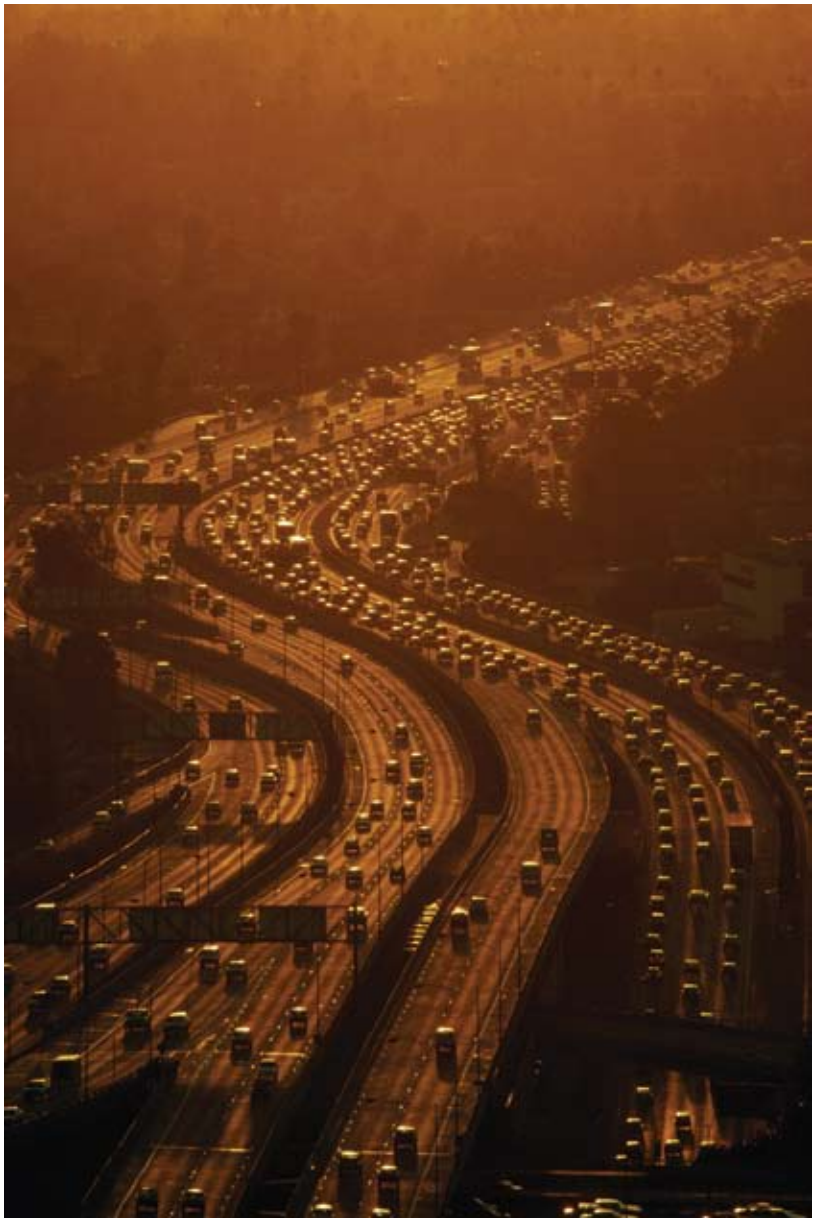
Between 1993 and 2003, the SCAG region (particularly Los Angeles and Orange counties) consistently ranked as the most congested metropolitan region in the nation. On the positive side, the congestion level in Los Angeles and Orange counties increased little between 1993 and 2003 while other metropolitan areas experienced much larger increases. Nonetheless, in 2003, a traveler in Los Angeles/Orange counties during the peak period experienced an annual average of 93 hours of delay, the highest among the major metropolitan areas in the nation, while a traveler in Riverside/San Bernardino counties experienced a total of 55 hours of delay, the 9th highest among major metropolitan areas. In addition, total cost incurred due to congestion in the

SCAG region was almost $12 billion in 2003, significantly higher than any other metropolitan region.

In 2004, motor vehicle crashes in the region resulted in 1,822 fatalities, the highest since 1995. This was a very slight increase from 2003 while both the rest of California and nation saw reductions. In 2004, the region's highway accident fatality rate at 1.18 persons per 100 million vehicle miles traveled was significantly higher than the national average (0.94 persons per 100 million vehicle miles traveled) for urban areas.

Total transit boardings in the region in FY 2004 (from July 2003 to June 2004) declined by about 2 percent due to the labor strike of the MTA transit system. During FY 2005, the MTA system recovered more than its loss in FY 2004 and the regional total of transit boardings should also exceed its FY 2003 level.

Between 2003 and 2004, average travel time to work increased very slightly (0.7 minutes) to 28.8 minutes. This continued to be higher than the state and national averages (27 and 25 minutes, respectively). From 2000 to 2004, there was a decrease in the region's carpooling share of work trips from 14.3 percent to 11.4 percent, and increases in the share of drive-alone commuting, from 73 percent to 76.7 percent. This was similar to the trend at the national level though the magnitude of decline in carpooling share was much larger in the region.



5. In 2004, air quality in the region continued to exceed the federal standards but with noticeable improvements in Ozone, PM_{10} and $PM_{2.5}$. The improvement was facilitated significantly by a much milder and favorable weather pattern.

In 2004, partly due to cooler weather and weak atmospheric inversions, ozone pollution improved in all four non-attainment air basins in the region. In the most populous South Coast Air Basin, the number of days exceeding the federal one-hour ozone standard decreased from 68 days to 28 days between 2003 and 2004, the lowest since 1976. In 2004, the South Coast Air Basin exceeded the federal 8-hour standard 90 days, a significant decrease from 120 days in 2003 and again the lowest since 1976.

Between 2003 and 2004, the annual average of PM_{10} pollution in the Salton Sea Air Basin dropped significantly from 60 percent to about 30 percent over the federal standard. There was also a slight reduction in the PM_{10} annual average between 2003 and 2004 in the South Coast Air Basin. In 2004, the number of days exceeding the federal 24-hour standard (150ug/m^3) for PM_{10} decreased in all three non-attainment basins. As to $PM_{2.5}$, the annual average concentration in the South Coast Air Basin also declined, from 24.9 ug/m^3 in 2003 to 22.1 ug/m^3, but continued to exceed the federal standard of 15 ug/m^3.

In 2002, the South Coast Air Basin met federal attainment standards for carbon monoxide (with no violation in 2001 and one day exceeding the federal standard in 2002 that was allowable). The basin continued to have no violation for carbon monoxide in 2003 and 2004.

6. Since 2000, the region has made little progress in student performance including test scores and dropout rates. In addition, there continues to be significant disparities in educational performance among different racial and ethnic groups. As to the level of educational attainment among residents, the region has made noticeable improvements since 2000 following the national trend.

In 2004, 8th graders in the region continued to perform below the national median in reading and math test scores except in Orange and Ventura counties. In 2004, both Los Angeles (19 percent) and San Bernardino (17 percent) counties experienced much higher dropout rates than the state average (13 percent). African American and Hispanic high school students across the region, when compared with their White and Asian peers, had significantly higher dropout rates.

As to the percentage of high school graduates completing courses required for University of California (UC) or California State University (CSU) entrance, while Orange, San Bernardino and Ventura made noticeable progress in 2004, both Los Angeles and Riverside counties experienced lower performance than 2003. In 2004, every county in the region had less than 40 percent of high school graduates complete courses required for UC or CSU entrance.

Recent studies found that in California there are significant improvements in educational attainment from first-generation immigrants to their second generation adult children (aged 25 to 49). But despite the dramatic progress, second-generation Mexican adult children still lagged significantly behind White second-generation descendants in achieving at least a bachelor's degree.

Between 2000 and 2004, there were more noticeable improvements in educational attainment in the region following the national

trend. During this period, the percentage of adults with at least a high school degree increased from 74 to 77 percent while the percentage of adults with at least a bachelor's degree increased from 25 to 27 percent. Nevertheless, among the nine largest metropolitan regions, the SCAG region remained in last place in the percentage of adults (77 percent) with at least a high school diploma, and 2nd to last for at least a Bachelor's degree (27 percent).

7. Violent crime rates have continued to decline since 1992 and the incidences of hate crimes have also been decreasing since 2001. However, the juvenile felony arrest rate rose slightly in 2004 in contrast to the past trend of continuous decline.

In 2004, the violent crime rate in the region declined by almost 10 percent from 2003, larger than the 5 percent reduction at the state level. In 2004, the violent crime rate in the region was only about 43 percent of the peak 1992 level. The reduction was most significant in Imperial County (-14.4 percent) and Riverside County (-11.3 percent). Ventura and Orange counties consistently had the lowest rates in violent crimes in the region.

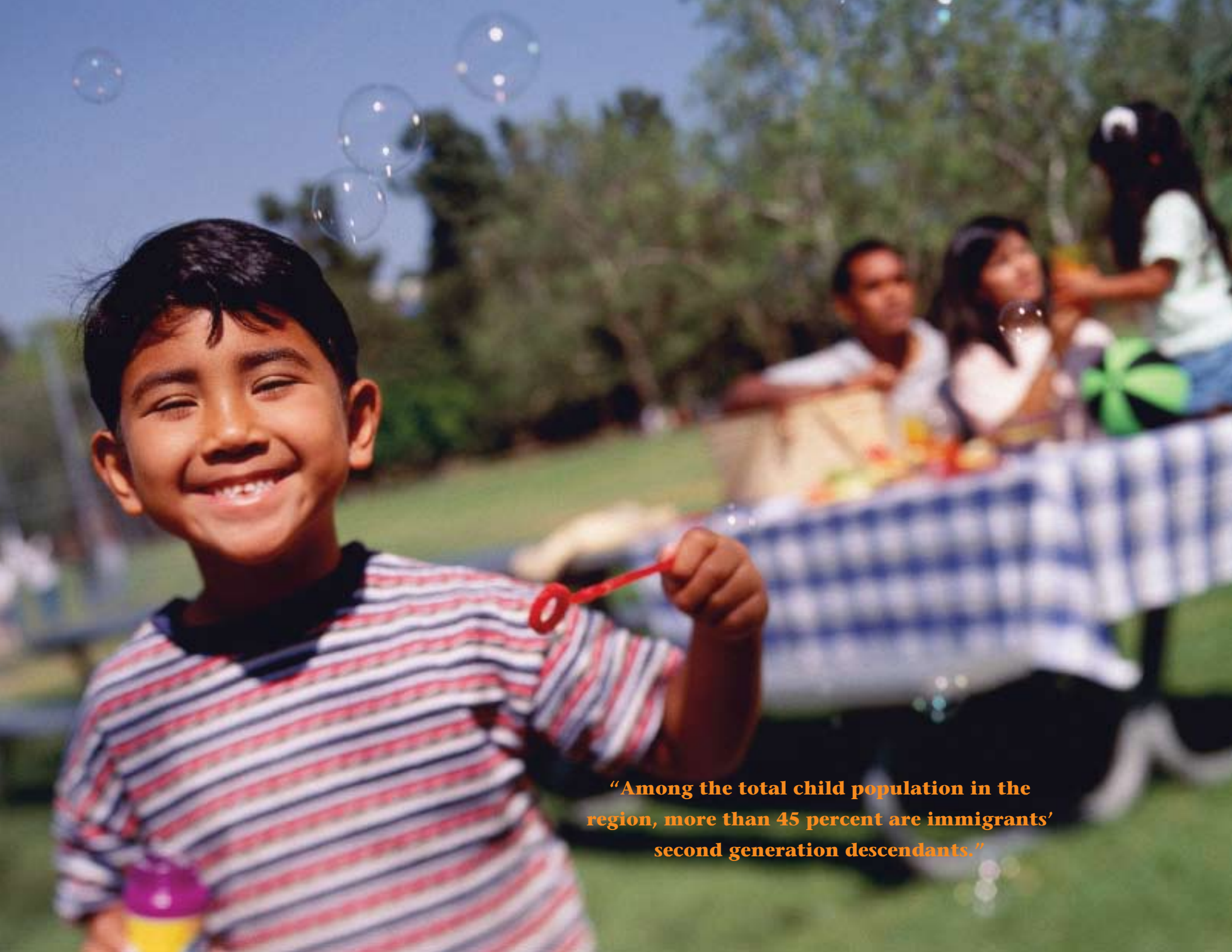
From 2003 to 2004, the juvenile felony arrest rate in the region increased by about 2 percent, in contrast to the trend of continuous decline between 1990 and 2003. At the state level, the juvenile felony arrest rate in 2004 remained almost the same as in the previous year. Within the region, the juvenile felony arrest rate increased significantly in Ventura County (18 percent) and Los Angeles County (9 percent). The other four counties, however, achieved significant reductions ranging from 7 percent in San Bernardino County to 11 percent in Imperial County. The number of hate crime events and victims in the region declined by about 8 percent between 2003 and 2004, following about a 12 percent reduction during the previous period.

The Path Forward

The 21st Century is a century of regions that engage in global competitions for new markets, financial and human capital and more importantly, high quality of life for all residents. As one of the most dynamic gateway regions in the nation and the world, Southern California has been facing enormous interrelated challenges to regain its economic competitiveness, address environmental sustainability, improve livability and ensure social equity. This is particularly challenging in light of the estimated growth of another 5 million residents over the next 25 years.

Since 2000, though the SCAG region had not achieved meaningful growth in employment and income until 2004, it generally has not lost additional ground relative to the other largest metropolitan regions in the nation. However, the level of socioeconomic well-being (e.g. educational attainment, per capita income, homeownership and housing affordability) of Southern Californians in 2004 continued to be significantly below the average of the largest metropolitan regions in the nation. In addition, the region continued to face persistent challenges in mobility and air quality. All these challenges are interrelated and transcend the boundary of any jurisdictions.

These interrelated challenges require a system approach that involves all stakeholders working collaboratively to generate innovative and integrated regional solutions. An important requirement of the regional solutions is that they must generate broad benefits at the regional system level in addition to addressing more focused issue areas. For example, the Compass 2% Strategy, evolved from a collaborative planning process, aimed at reshaping the region's development pattern in strategic transportation corridors and urban centers to, among others, improve accessibility and mobility, increase supply of affordable housing, and improve environmental quality.[2] In addition, the Regional Strategy for Goods Movement, currently under development through extensive stakeholder participation, is intended to generate broad regional benefits of enhancing freight mobility and economic competitiveness, fostering upward social mobility as well as improving air quality.[3] The implementation of integrated solutions will also require innovation in governance and leadership at all levels from all sectors whether public, private or non-profit. Only by working together could we develop a shared vision and translate it into a reality.



"Among the total child population in the region, more than 45 percent are immigrants' second generation descendants."

POPULATION

Growth Characteristics

During the year 2004, the SCAG region continued to grow significantly with an increase of 284,000 residents, just over 10 percent of the total growth in the nation (Figure 1). By the end of 2004, total population in the region reached over 18 million, representing 6.1 percent of the population in the nation and close to half in the state. Among the 50 states, the region would rank fourth in total population following California, Texas and New York, and ahead of Florida.

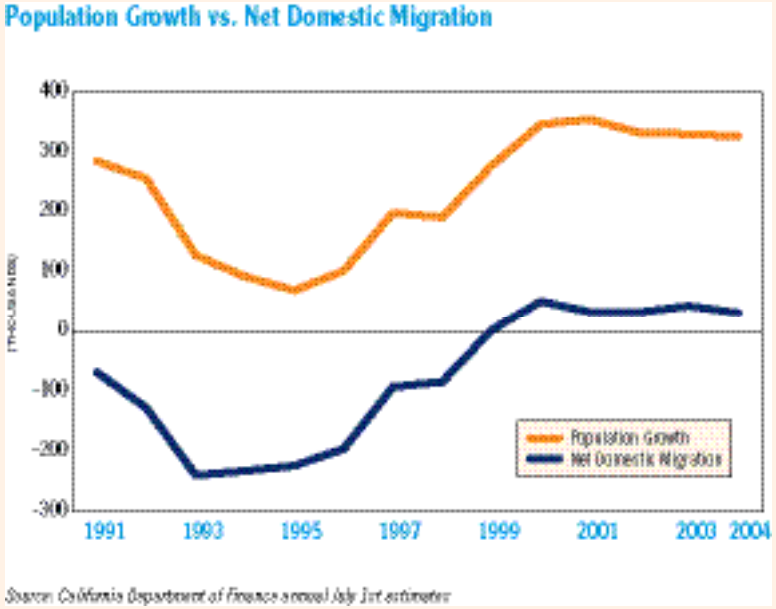
Figure 1

Population Increase: 2003 and 2004 (Thousands)

				2003 Increase		2004 Increase	
COUNTY	1/1/2003	1/1/2004	1/1/2005	Number	Percent	Number	Percent
Imperial	152.3	157.1	161.8	4.8	3.2%	4.7	3.0%
Los Angeles	9,979.4	10,107.5	10,226.5	128.1	1.3%	119.0	1.2%
Orange	2,983.7	3,022.6	3,056.9	38.9	1.3%	34.3	1.1%
Riverside	1,726.8	1,807.9	1,877.0	81.1	4.7%	69.1	3.8%
Ventura	799.9	804.5	813.1	10.6	1.3%	8.6	1.1%
San Bernardino	1,842.9	1,897.9	1,946.2	55.0	3.0%	48.3	2.5%
REGION	17,479.0	17,797.5	18,081.5	318.5	1.8%	284.0	1.6%
Rest of California	18,212.4	18,473.6	18,728.9	261.2	1.4%	255.3	1.4%
California	35,691.4	36,271.1	36,810.4	579.7	1.6%	539.3	1.5%
U.S.	289,427.0	292,324.7	295,160.3	2,897.7	1.0%	2,835.6	1.0%

Since 1990, annual population growth in the region has varied significantly (Figure 2). Between 1991 and 1995, population growth plummeted from over 280,000 annually to only 70,000 mainly due to the sharp increase of net domestic outmigration caused by the severe recession.[1] Between 1995 and 1999, net domestic outmigration decreased continuously and in 1999 the region began to experience a small net domestic in-migration. Accordingly, population growth began to accelerate, increasing from about 70,000 in 1995 to 350,000 in 2000. Since 2000, population growth in the region has been slowing slightly. Nevertheless, the average annual growth of 320,000 between 2000 and 2004 was the highest in the region since 1950.

Figure 2

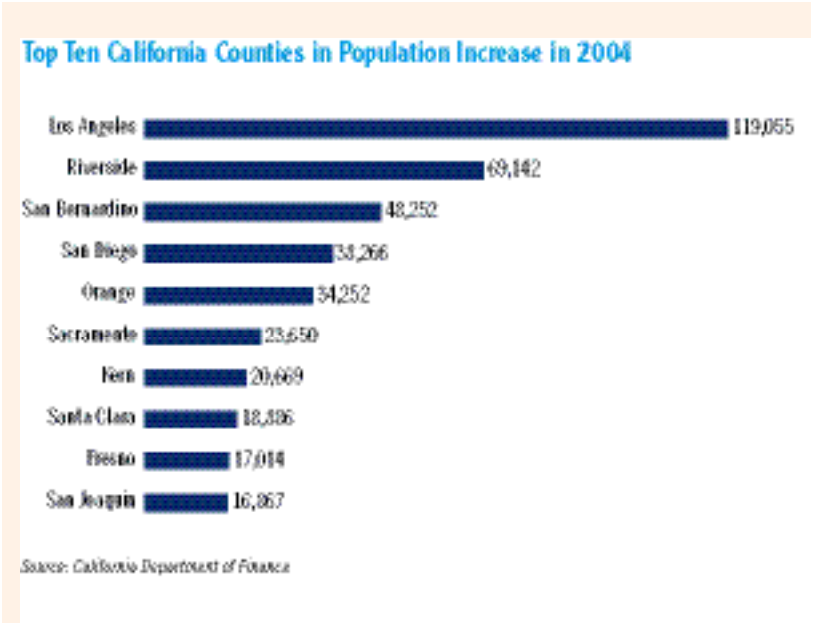


As to the region's share of population growth in the nation, it also fluctuated widely between 1990 and 2004 because of the significant fluctuation in the region and relatively stable growth in the nation. Specifically, the region's share of national population growth dropped from about 8 percent in 1991 to its lowest level at 2.5 percent in 1994 and then increased to its peak of 11.5 percent in 2001.

The region has continued to grow at a faster rate than the rest of the state and the nation since 1998. *In 2004, population growth at 1.6 percent in the region continued to be higher than that of the rest of the state (1.4 percent) as well as the nation (1 percent).* Compared to the national average, while the three coastal counties (Los Angeles, Orange and Ventura) grew only at slightly higher rates, the three inland counties (Riverside, San Bernardino and Imperial) together grew more than three times faster. Between 2000 and 2004, Southern California experienced the second highest growth rate among the nine largest metropolitan regions, following only the Dallas region (see Figure 73).

Population growth in the region in 2004 accounted for 53 percent of the total increase in the state. *Four of the top five California counties in population increase were in the SCAG region, including Los Angeles, Riverside, San Bernardino and Orange counties* (Figure 3). Two neighboring counties of the SCAG region also made it into the top ten, including San Diego County (4th) and Kern County (7th). Another neighboring county, Santa Barbara, only increased 4,100 people during 2004. In contrast, only two counties in northern California made it into the top ten, Sacramento (6th) and Santa Clara (8th).

Figure 3



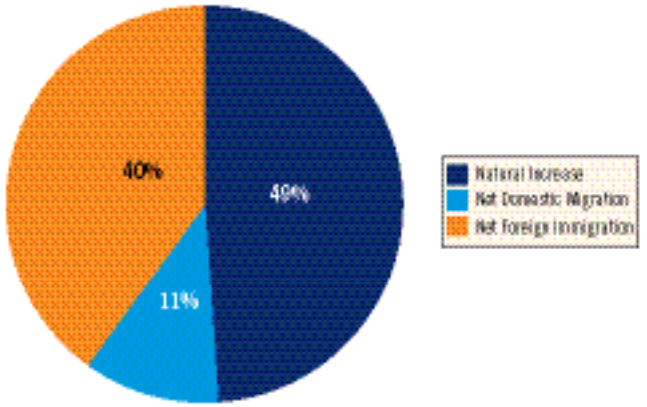
As to the rate of growth within the region in 2004, the three inland counties achieved significantly higher growth rates than the rest of the state (1.4 percent). Specifically, Riverside County achieved the highest growth rate of 3.8 percent in the state while Imperial and San Bernardino counties had the 3rd (3 percent) and 11th (2.5 percent) highest rates respectively. In contrast, for two consecutive years, the three coastal counties (Los Angeles, Orange and Ventura) all grew at slightly lower rates than the rest of the state.

The Inland Empire (Riverside and San Bernardino counties) captured 42 percent of the total growth in the region in 2004 due to significantly higher growth rates than the regional average, though its total population of 3.8 million was only 21 percent of the region's total. Another 42 percent of the total population growth in the region in 2004 occurred in Los Angeles County, lower than its share of 57 percent of the region's total population. Orange County, though with 17 percent of the region's total population, only attracted 12 percent of the total growth. Since 2000, the population growth share of Los Angeles County at 45 percent was significantly higher than its share of 35 percent during the 1990s, while the population growth share of Orange County at 14 percent was significantly lower than its share of 23 percent during the 1990s. For the Inland Empire, population growth share since 2000 at 36 percent was similar to that of the 1990s.

As to the sources of population growth in the region between 2000 and 2004, close to half (49 percent) was due to natural increase, 40 percent was from net foreign immigration and 11 percent from net domestic migration (Figure 4). Natural increase represents the difference between births and deaths. Compared to the past two decades, the period between 2000 and 2004 was the only period that Southern California experienced net domestic in-migration (Figure 5).

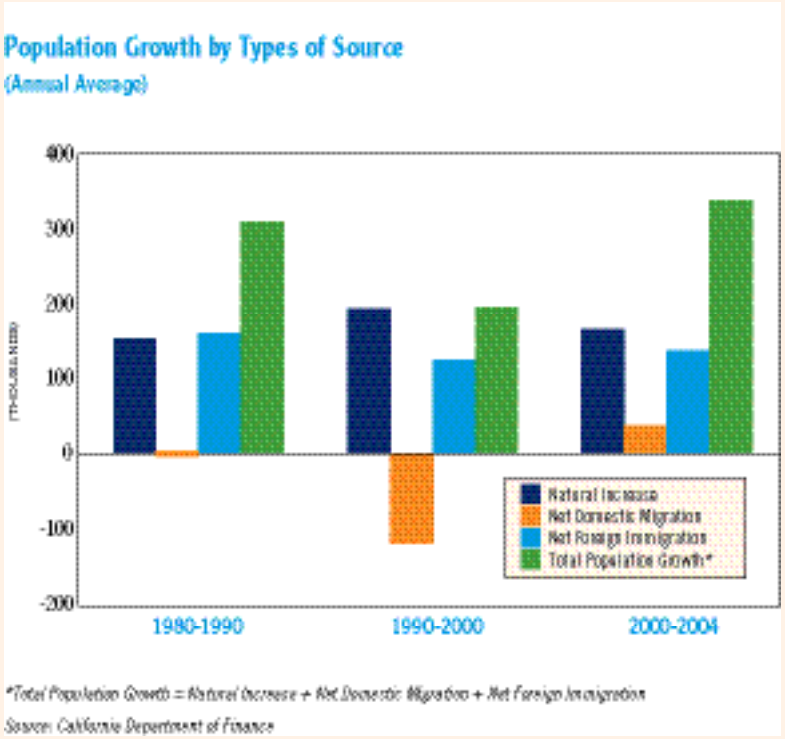
Figure 4

Population Growth by Types of Source 2000-2004



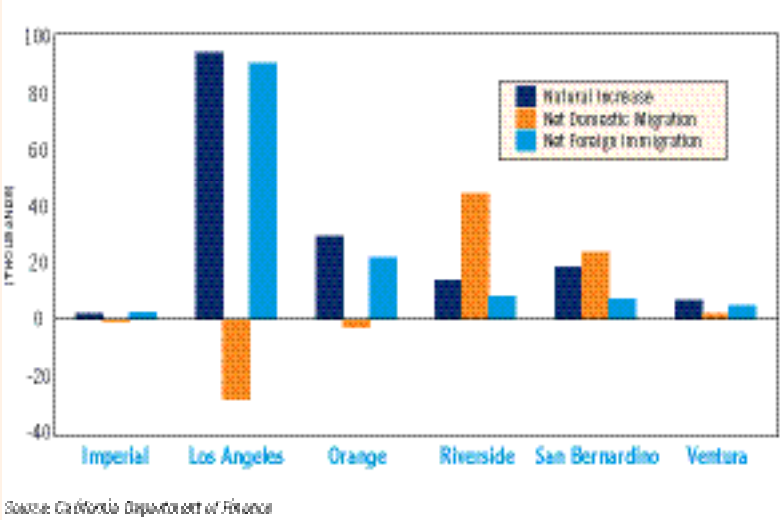
Source: California Department of Finance

Figure 5



Within the region, natural increase, foreign immigration and domestic migration contributed differently to the population growth among different counties (Figure 6). *Overall, natural increase contributed much more significantly to the growth in the three coastal counties (Los Angeles, Orange and Ventura) and Imperial than the Inland Empire (Riverside and San Bernardino) where net domestic in-migration played a more important role*. For example, since 2000, while natural increase has accounted for 60 percent of the population growth in Orange County, it has accounted for only 20 percent of the population growth in Riverside County. Conversely, since 2000, while net domestic in-migration has accounted for two-thirds of the population increases in Riverside County, Orange County experienced a total of 14,000 net domestic outmigration. Domestic migrants to the Inland Empire were primarily those who moved within the region (i.e. intra-regional migration), particularly from Los Angeles County.

Figure 6



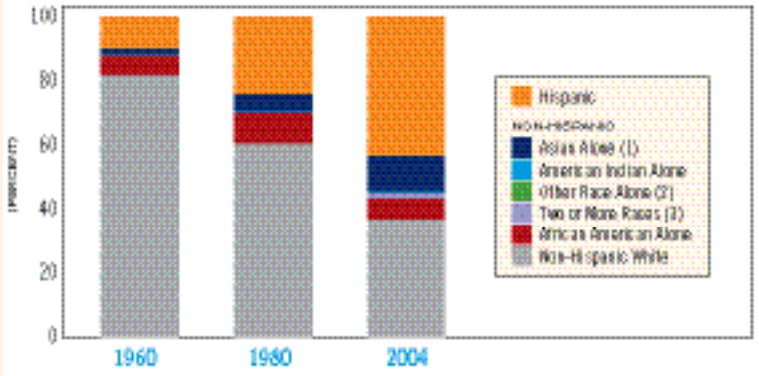
Demographic Dynamics

There are four important demographic dynamics at work in Southern California. They include the continuing change in the ethnic composition, longer settlement of the foreign-born population, growing share of the immigrants' second generation and the aging of the overall population. These four dynamics are interrelated and together they have significant implications for the future performance potential of Southern California.

As to the transformation in ethnic composition, between 1960 and 2000, the share of the Hispanic population increased from 10 percent to 41 percent while the share of the Asian population increased from 2 percent to over 10 percent. During the same period, the share of the non-Hispanic White population declined dramatically from about 80 to 40 percent. This ethnic transformation continued between 2000 and 2004 during which population growth continued to be almost exclusively among Hispanics and Asians. Between 2000 and 2004, about 78 percent of population growth was among Hispanics and 18 percent among Asians. Non-Hispanic Whites and African Americans together accounted for only about four percent of the population growth. Hence, between 2000 and 2004, while the share of the Hispanic population continued to increase, from 41 to 43 percent, the share of the non-Hispanic White population continued to decrease, from 40 to 37 percent. During this period, the share of the Asian population also increased from 10.5 percent to 11.1 percent while the share of African American population in the region dropped slightly to below 7 percent (Figure 7).

Figure 7

Population by Race and Ethnicity



Notes:
(1) "Asian Alone" also includes Pacific Islander.
(2) "Other Race Alone" is too small to be shown (at 0.3 percent in 2004).
(3) Only the 2004 data included the "Two or More Races" category to which people may choose to belong.
Source: U.S. Census Bureau. Data in 1960 was estimated by James Allen and Eugene Turner. 2002. Changing Faces, Changing Places.

In 2004, almost one out of six immigrants in the nation resided in Southern California. About 31 percent of the region's total population was foreign-born (immigrant) population. Recent immigrants to the U.S. have increasingly pursued economic opportunities in areas where fewer immigrants had lived previously. Between 1990 and 2000, 44 of the 50 states increased their shares of the arrivals of immigrants in the nation while only six experienced declines in their shares.[2] California's share of immigrant arrivals dropped from 38 percent to 25 percent during the 1990s, the largest decline (13 percent) among all states while no other states experienced a drop of more than 2 percent. The region's share of immigrant arrivals also fell sharply from about 22 percent to 12 percent between 1989 and 1999, just over half of the levels during the 1970s and 1980s.[3] As a result, recent immigrants are increasingly less concentrated in the historical gateway regions particularly Southern California, and are becoming a little more dispersed throughout the nation.

The second important demographic dynamic is that the region's immigrant population has achieved longer settlement which has important implications for its overall level of socioeconomic well-being. In 2000, the SCAG region experienced a decrease in the new immigrant population compared to 1990, reversing a steady increase since 1970. For example, between 1970 and 1990, the region's new immigrant (arrived U.S. within the last 10 years) population increased from about 400,000 to 2.1 million while the settled immigrant population (arrived U.S. more than 10 years ago) increased from 580,000 to 1.9 million (Figure 8). Between 1990 and 2000, however, the new immigrant population decreased from 2.1 million to 1.8 million while the settled immigrant population continued to increase from 1.9 to 3.3 million. As to the share of the total population in the region, new immigrants increased from 4 percent in 1970 to 14 percent in 1990 then decreased to 11 percent in 2000, while the share of the settled immigrant population increased continuously from just below 6 percent in 1970 to 20 percent in 2000 (Figure 9). At the state level, the share of new immigrants to the state population dropped just below 10 percent in 2000 from 11 percent in 1990, the first decline since 1970 or earlier, and is projected to decline further to about 7 percent in 2030.[4] On the other hand, the share of the settled immigrants increased from about 11 percent in 1990 to 17 percent in 2000 and is projected to further increase to about 23 percent in 2030.[5] The SCAG region is estimated to follow a similar trend as that at the state level.

Figure 8

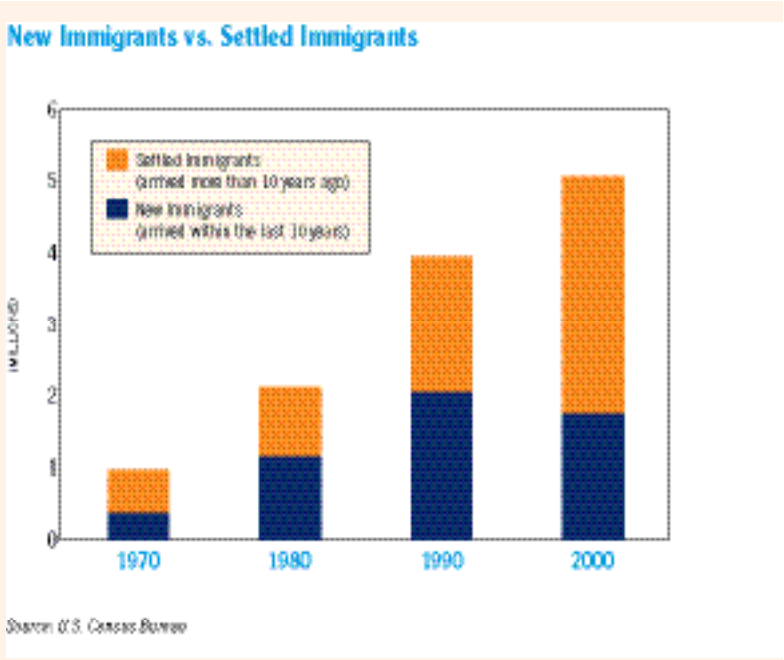
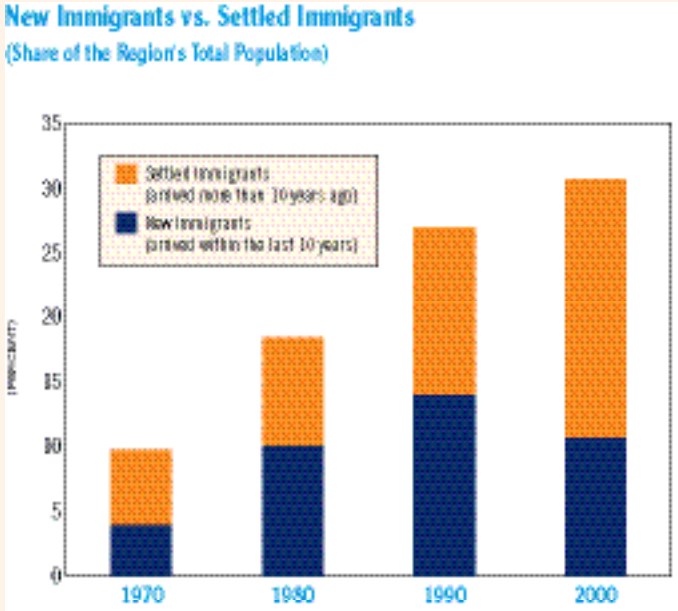
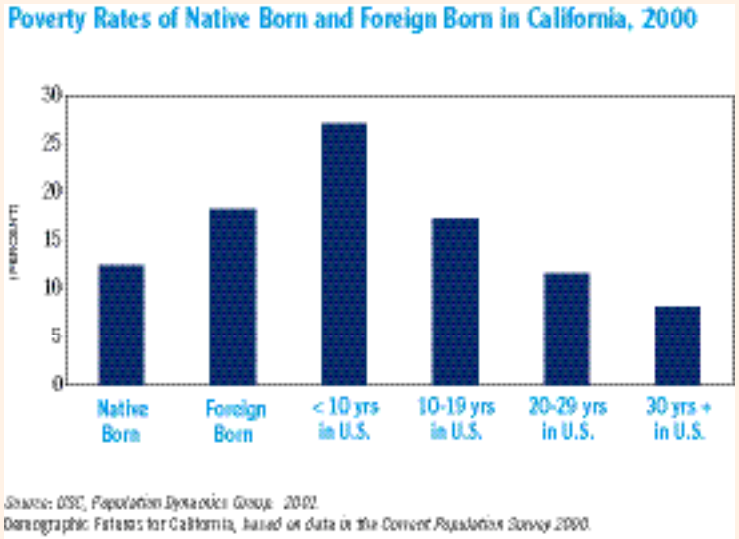


Figure 9



The level of socioeconomic well-being (e.g. educational attainment, household income, poverty rate, homeownership rate, etc.) of the immigrant population improves noticeably with the length of settlement.[6] For example, in California, 27 percent of the immigrants who arrived in the U. S. within the last 10 years lived below the poverty line in 2000, compared to only 17 percent of the immigrants arriving between 10 to 19 years ago, 12 percent of immigrants arriving between 20 to 29 years ago and 8 percent of the immigrants arriving more than 30 years ago (Figure 10). The increasing share of settled immigrants also contributed to the increasing share of naturalized U.S. citizens among the immigrant population in the region. Between 1980 and 2000, the shares of the immigrant population who were naturalized U.S. citizens increased from 30 percent to 38 percent, still lower than the national average of 42 percent. Nevertheless, there were still many Southern California immigrants who are not eligible to become naturalized citizens regardless of the length of settlement because they are not legal U.S. residents. The maturing settlement of the immigrant population could bring positive performance outcomes for the region's future, particularly with supportive public policies.

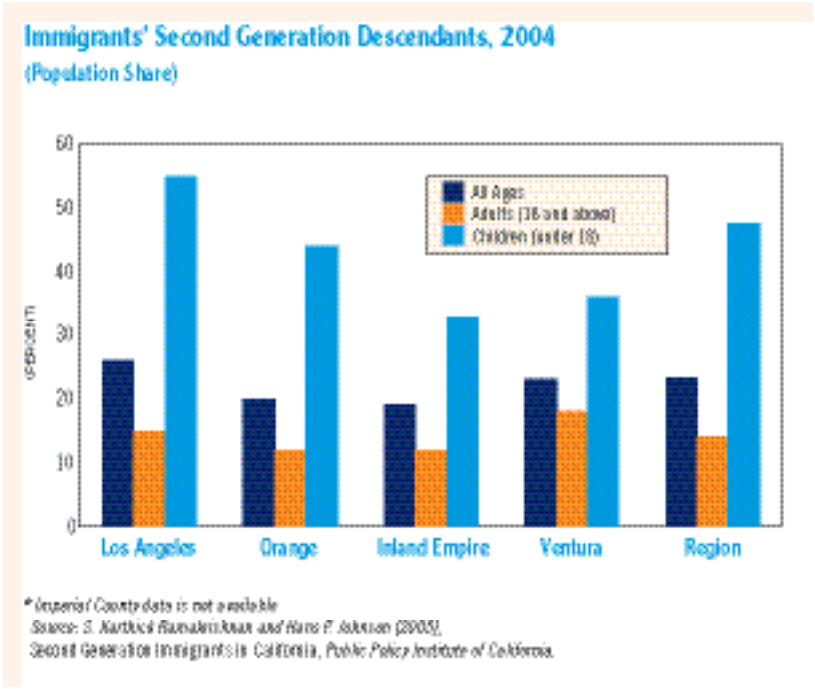
Figure 10



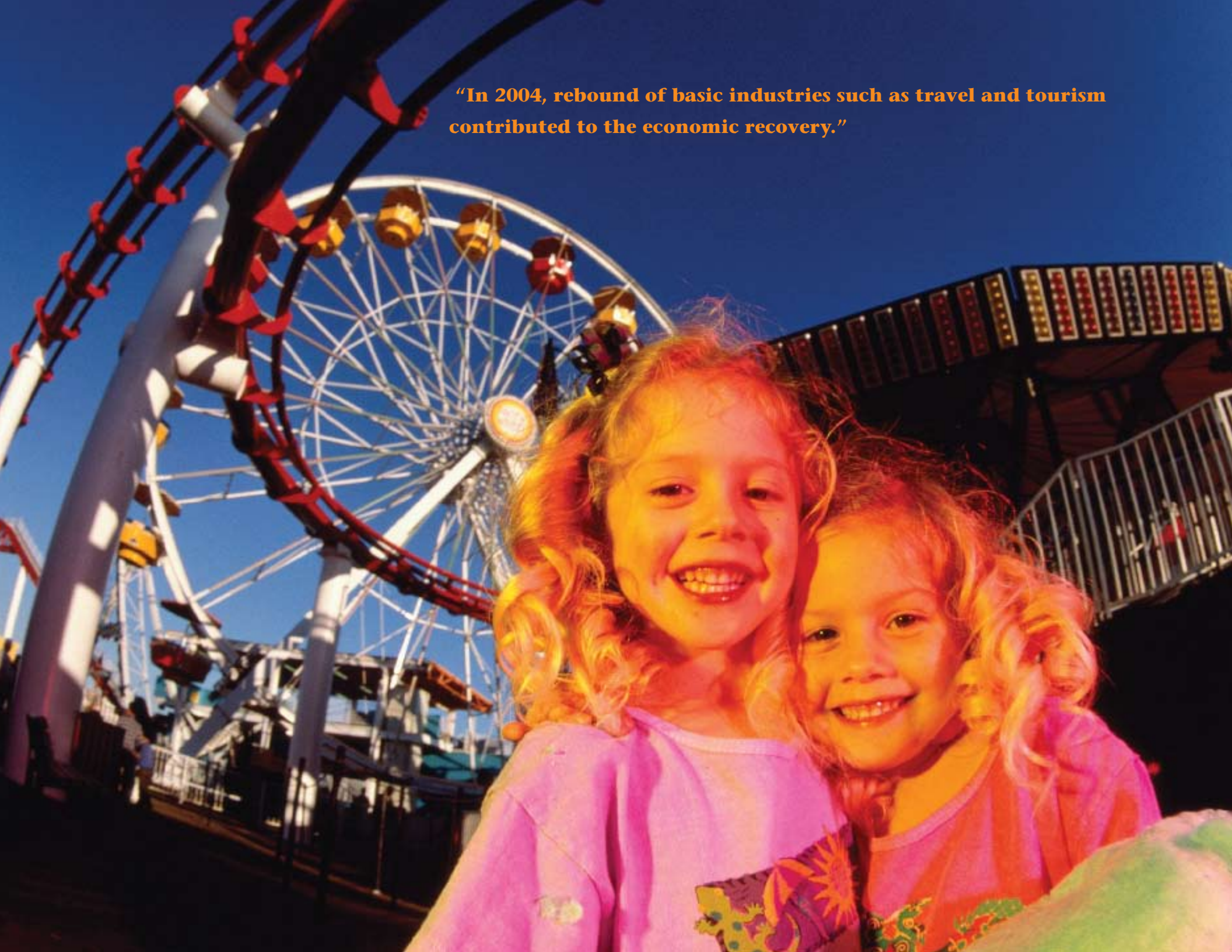
The growing share of settled immigrants also results in a growing share of the immigrants' second generation in the region, i.e. U.S-born residents with at least one foreign-born parent. Currently, about 23 percent (or 4.3

million) of the population in the region belongs to the immigrants' second generation.[7] Immigrants' second generation descendants are much younger than the rest of the population, with more than half being children under 18 years of age, compared to only about 20 percent of the rest of the population. Among the total child population in the region, more than 45 percent belongs to the immigrants' second generation. Accordingly, the educational and occupational attainment of immigrants' second-generation, particularly children, will significantly impact the region's future performance.

Figure 11



Finally, the median age of the population in the region continued to rise over time. Median age increased from 30.7 in 1990 to 32.2 in 2000 and 33.3 in 2004.[8] In 2004, the region continued to be younger than the state (34.2) and the nation (36.2). Among the nine largest metropolitan regions in the nation, the SCAG region continued to be the second youngest in terms of median age, following the Dallas region (32.8). The share of people 60 years and over increased slightly from 13 percent to 13.4 percent between 2000 and 2004. The growing share of the immigrants' second generation contributed to the slower pace of aging process in Southern California than in the rest of the nation.



"In 2004, rebound of basic industries such as travel and tourism contributed to the economic recovery."

THE ECONOMY

Employment

Why is this important?

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

How are we doing?

In 2004, the regional job market showed broad-based improvements over the previous year (Figure 12). After gaining only 22,000 jobs (or 0.3 percent) in 2003, total wage and salary jobs in the region increased by almost 90,000 (1.3 percent) during 2004. The increase in 2004 was the highest since 2000 and was comparable to the level in 1995, another year of recovery from the early 1990s recession.

Figure 12

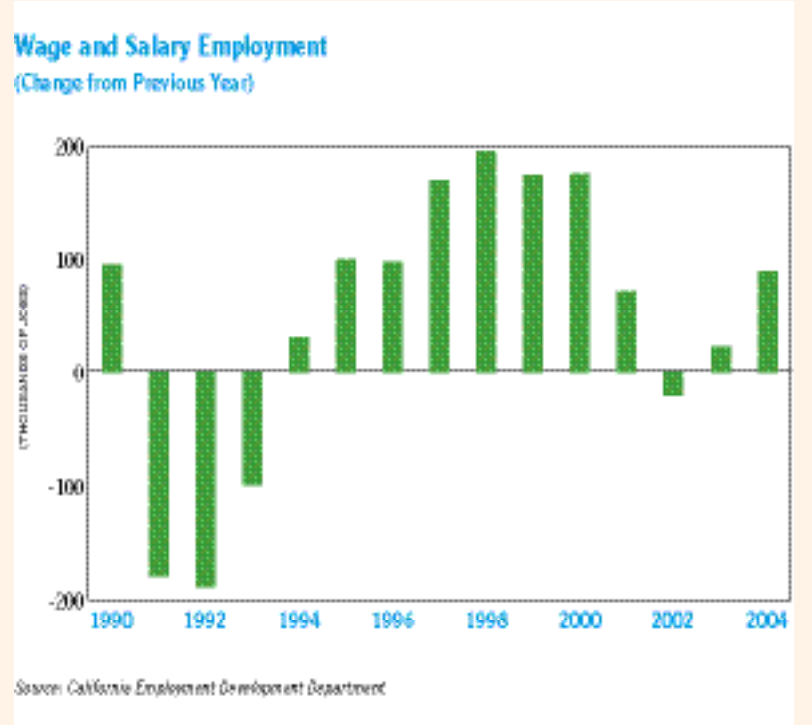
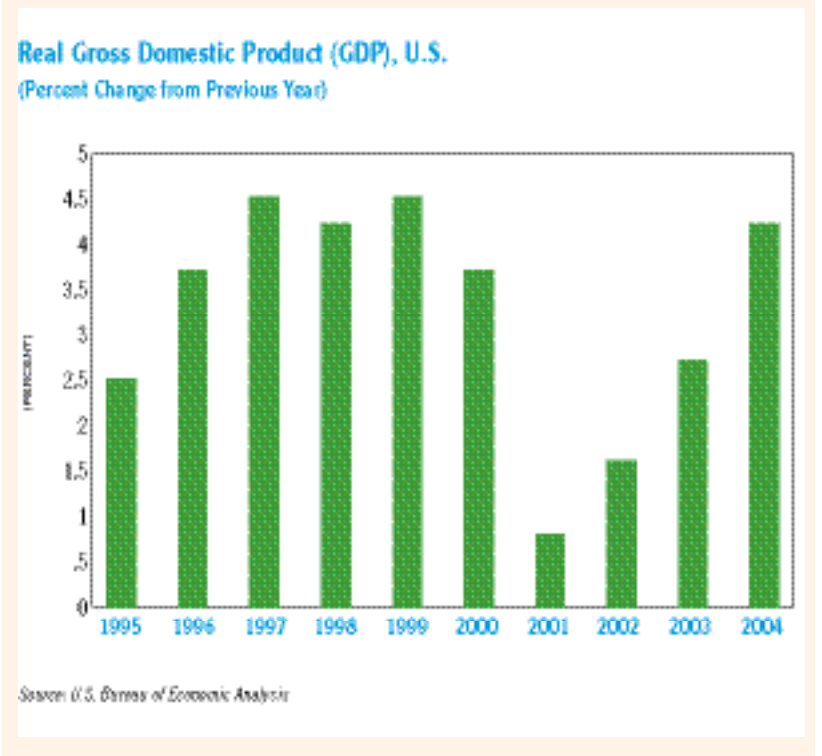


Figure 13



2004 was also the first year since 2001 that job gains took place at the national level. Since the end of 2001, the national economy has continued its expansion mode based on the growth of Real Gross Domestic Product (GDP) (Figure 13). After dropping from 3.7 percent in 2000 to 0.8 percent in 2001, real GDP increased by 1.6 percent in 2002 followed by an increase of 2.7 percent in 2003. *During 2004, real GDP increased by 4.2 percent matching the high-level growth during the late 1990s.*

The increase in real GDP in 2004 was due almost exclusively to sustained growth in consumer spending and a significant increase in private investment which had been declining between 2000 and 2002. Consumer spending continued to increase throughout the recession and recovery. Real consumer spending has increased by more than 3 percent annually since 2001 fueled by the rebound in household wealth from significant increase of home equity. Nationally, household wealth at the end of 2004 was 12 percent higher than it was at the peak of the stock market bubble in 2000. Rising home equity has accounted for about 70 percent of that increase.[2] As to the private investment in non-residential equipment and software, after declining

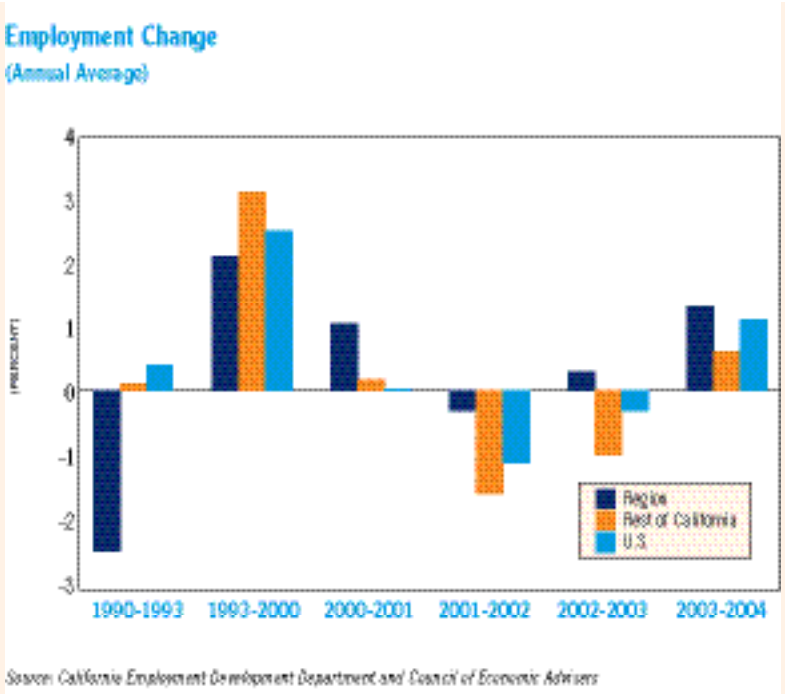
Figure 14

Wage and Salary Employment (Thousands)

						2002-2003		2003-2004	
COUNTY	1990	2000	2002	2003	2004	Number	Percent	Number	Percent
Imperial	41.9	50.4	50.8	51.9	51.2	1.1	2.2%	-0.7	-1.3%
Los Angeles	4,189.5	4,079.8	4,034.6	3,990.8	3,999.7	-43.8	-1.1%	8.9	0.2%
Orange	1,179.0	1,396.5	1,411.0	1,436.2	1,466.9	25.2	1.8%	30.7	2.1%
Riverside/San Bernardino	735.1	1,010.1	1,084.0	1,119.7	1,168.7	35.7	3.3%	49.0	4.4%
Ventura	247.0	294.3	301.0	304.4	305.7	3.4	1.1%	1.3	0.4%
REGION	6,355.5	6,831.1	6,881.4	6,903.0	6,992.2	21.6	0.3%	89.2	1.3%
Rest of California	6,507.9	8,065.6	7,949.1	7,866.7	7,916.9	-82.4	-1.0%	50.2	0.6%
California	12,863.4	14,896.7	14,830.5	14,769.7	14,909.1	-60.8	-0.4%	139.4	0.9%
U.S.	109,403.0	131,785.0	130,341.0	129,999.0	131,480.0	-342.0	-0.3%	1,481.0	1.1%

Source: California Employment Development Department, Council of Economic Advisers

Figure 15



Source: California Employment Development Department and Council of Economic Advisers

by 11 percent from 2000 to 2002, it increased by 3 percent in 2003 and 12 percent in 2004. Private residential investment also achieved a 10 percent increase in 2004 after an 8 percent increase in 2003. From 2003 to 2004, productivity growth slowed from 4.5 percent to 4 percent. In 2004, with the higher growth rate of real GDP than in 2003, the lower rate of productivity growth further increased the need for job market expansion.

In 2004, the region achieved a higher rate of job growth (1.3 percent) than the rest of the state (0.6 percent) and the nation (1.1 percent) (Figure 14). Between 2000 and 2004, the SCAG region performed better every year in job growth rates relative to the rest of the state, the nation and other large metropolitan regions (Figure 15). All the national trends discussed above also affected the pace of job recovery in Southern California. In addition, housing-related sectors contributed much more significantly to the job growth and economic recovery in the SCAG region than in the rest of the nation (Figure 16). Between 2001 and 2004, the number of residential building permits in the region increased by

almost 60 percent, more than double the national rate. During the same period, median (existing) home price in the region also increased by almost 60 percent, triple the national rate. Hence, the impacts from both housing construction and housing wealth (due to higher home equity) on job growth were expected to be disproportionately higher in the region than in the rest of the nation. Between 2001 and 2004, Southern California also had higher rates of population growth than the rest of the nation, which contributed to job growth in sectors such as retail trade and education.

Within the region, every county increased its total number of payroll jobs in 2004 except for Imperial (Figure 17). Job growth accelerated in the Inland Empire (Riverside and San Bernardino counties) in 2004 with an increase of 49,000 jobs (or 4.4 percent), substantially more than the 36,000 job increase (3.3 percent) during the previous period. Job growth in the Inland Empire accounted for 55 percent of the total increase in the region. The Inland Empire continued to be the leading new-job generator in the region. Job increases in the Inland Empire were concentrated in construction, retail trade, and professional and business services.

Figure 16

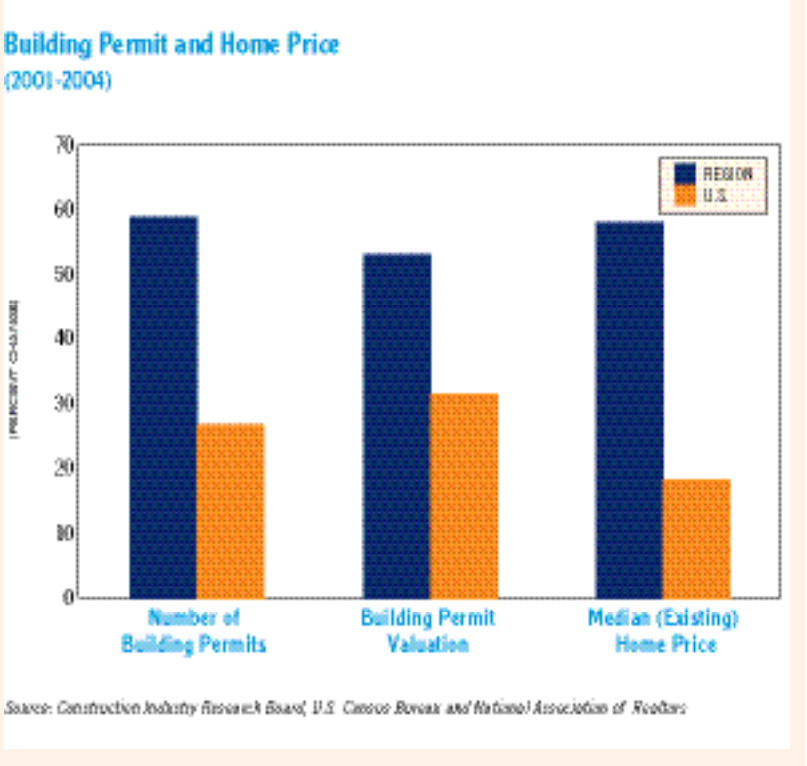
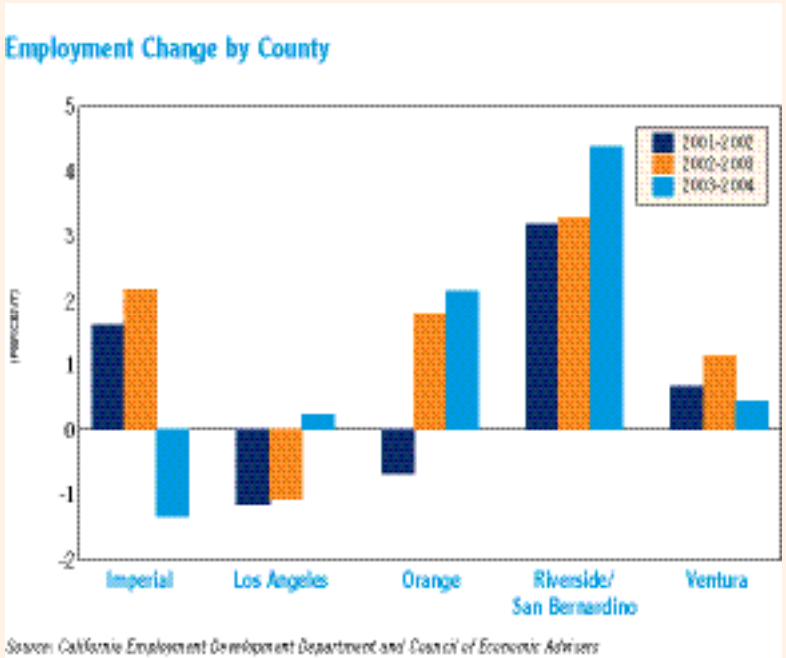


Figure 17



In Orange County, after gaining 25,000 jobs (or 1.8 percent) in 2003, total payroll jobs increased by another 31,000 (or 2.1 percent) in 2004. Financial activities continued to generate the highest number of new jobs, followed by construction, professional and business services, and leisure and hospitality sectors.

After losing 44,000 jobs (1.1 percent) in 2003, Los Angeles County gained almost 9,000 jobs (0.2 percent) in 2004, the first gains since 2001 (see Figure 14). Total jobs in Los Angeles County were just below 4 million in 2004 and were still 150,000 below the level in 1990. The information sector increased almost 6,000 jobs (2.9 percent) after losing 5,000 jobs (2.4 percent) in the previous year.

In Ventura County, total payroll jobs increased by only 1,300 (0.4 percent) in 2004. Job growth in manufacturing and retail trade more than offset the losses in public education and the government sector (excluding education). Finally, Imperial County's payroll jobs decreased by 700 (1.3 percent). Job losses took place mainly in the agricultural, government and manufacturing sectors while the leisure and hospitality and construction sectors experienced modest growth.

Employment by Sector

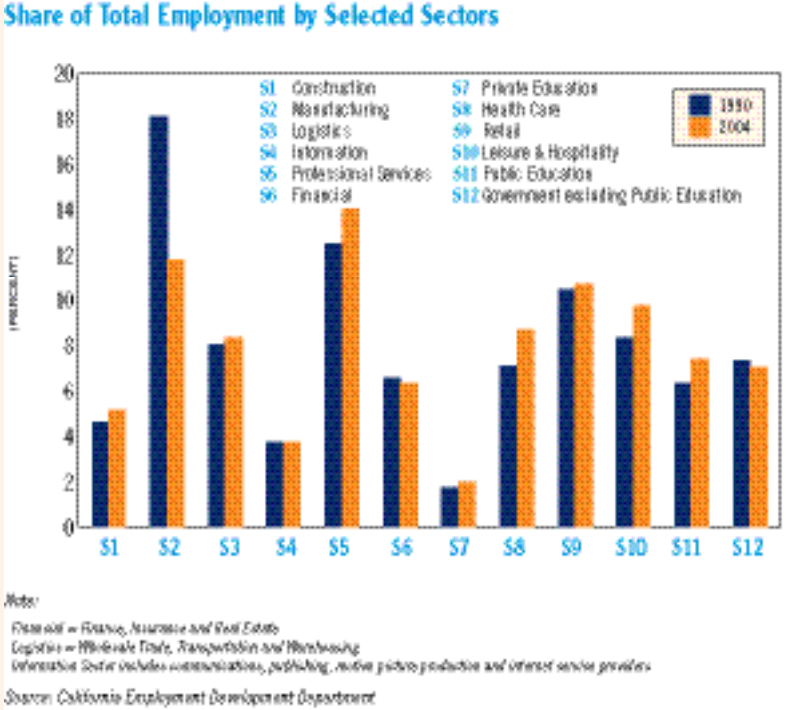
Why is this important?

Different economic sectors have different levels of wages as well as future growth potential in employment and income. Composition of occupations also varies 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?[23]

Between 1990 and 2004, total payroll jobs in the region increased from about 6.4 million to 7 million. In 2004, professional services was the largest sector with close to 1 million jobs. It also increased its job share in the region from 12.6 percent in 1990 to more than 14 percent in 2004 (Figure 18). In contrast, the share of manufacturing jobs in the region decreased significantly from 18 percent to just below 12 percent during the same period. Other sectors that experienced noticeable increases in their job shares included health care, leisure and hospitality and public education.

Figure 18



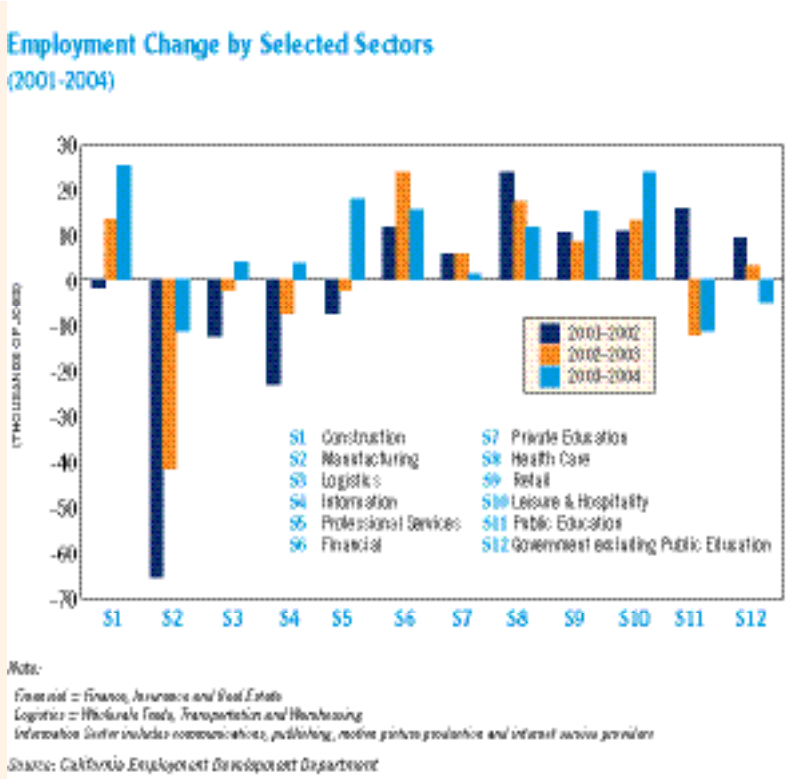
The logistics sector includes wholesale trade, transportation and warehousing that have particularly strong ties to the region's foreign trade activities. Transportation and warehousing includes truck, rail and air transportation, couriers and messengers, support services for transportation, and warehousing and storage. In 2004, the logistics sector provided about 585,000 jobs, almost one in twelve jobs in the region. Among the total logistics jobs in the state, more than 54 percent were in Southern California. Due to the projected significant increase in foreign trade, total jobs in the logistics sector in the region are estimated to increase another 120,000 over the next 10 years.[4]

In 2004, nine of the region's twelve major economic sectors experienced job increases (Figure 19). Only three sectors suffered job losses: manufacturing, public education, and government (excluding public education).

The 40-year low interest rates and significant population growth continued to spur demand for new home construction and remodeling throughout 2004. This has contributed to increased jobs not only in construction but also in several housing-related sectors within financial activities, manufacturing and retail trade.

Among the sectors with job increases, construction was the leading job generator. Due to the continuing boom in residential construction and the recovery in nonresidential construction, the construction

Figure 19



sector increased more than 25,000 jobs (7.5 percent) in 2004. Close to half of the increase took place in the Inland Empire.

The recovery of the travel and tourism industry also contributed to the increase of almost 24,000 jobs in the leisure and hospitality sector. Between 2003 and 2004, international air passenger traffic increased from 14.7 million to 16.6 million, a 13-percent increase, after a slight decline of 1.3 percent during the previous period. Overnight visitors to Los Angeles County also increased from 23.3 million in 2003 to 24.2 million in 2004 matching the highest level in 2000.

Retail trade and health care sectors are primarily population-serving sectors. With an increase of more than 1.2 million residents since 2000, both sectors have been growing steadily throughout the recession and recovery. Specifically, during 2004, the retail trade sector increased more than 15,000 jobs (2.1 percent). The health care sector also added another 12,000 jobs (1.9 percent) with almost 70 percent in ambulatory health care services.

After two consecutive years of losses, three sectors rebounded to produce job gains in 2004, including professional and business services, information and logistics. The professional and business services sector increased almost 18,000 jobs in 2004 after two consecutive years of combined losses of 10,000. Among the job increases, almost 80 percent (14,000) came from employment services. In addition, the logistics (including wholesale trade, transportation and warehousing) and information sectors both recovered from the job losses in earlier years.

Due to budget shortfalls, the public education sector suffered the highest job losses (more than 11,000) in 2004. Among all sectors with job losses in 2003 (e.g. manufacturing, information or professional services sectors), public education was the only one that did not experience noticeable improvements. In 2004, one in fourteen jobs in the region belonged to public education. It should be noted that with more than 510,000 jobs in 2004, the public education sector was slightly bigger than the government sector (excluding public education).

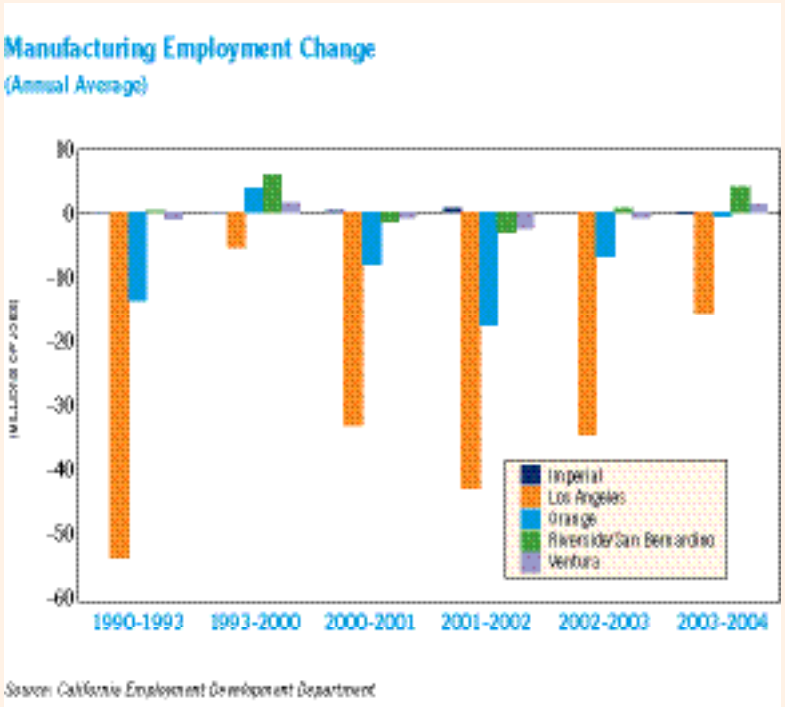
Manufacturing Sector

Since 1990, the region has lost almost 330,000 manufacturing jobs, most of them (280,000) in durable manufacturing. Within durable manufacturing, the transportation equipment subsector lost about

110,000 jobs while the computer and electrical equipment subsector lost another 100,000 jobs.

Between 1990 and 1993, the manufacturing sector in Southern California lost an average of 56,000 jobs per year (Figure 20). *After some recovery from 1994 to 1998, it began to decline again.* In 2004, the region lost 11,000 (1.4 percent) manufacturing jobs, much less than the 42,000 loss (4.8 percent) in 2003. *Manufacturing job losses in the region concentrated almost exclusively in Los Angeles County while the Inland Empire achieved an increase of almost 4,000 jobs (3.4 percent). It should be noted that in 2004, the region was the largest manufacturing center in the nation.*

Figure 20



Unemployment

Why is this important?

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

How are we doing?

In 2004, the region's labor force consisted of 8.53 million people, with approximately 8 million employed. The number of unemployed workers reached more than 510,000, an increase from about 400,000 just four years ago. Accordingly, the unemployment rate in the region was 6 percent in 2004, a slight decline of 0.2 percent from the previous year (Figure 21).

Unemployment rates dropped more significantly at the state and national levels. Between 2003 and 2004, the unemployment rate in California dropped from 6.8 percent to 6.2 percent while it declined from 6 percent to 5.5 percent in the nation. In 2004, the region's unemployment rate continued to be higher than the national average but slightly lower than the state average.

Figure 21

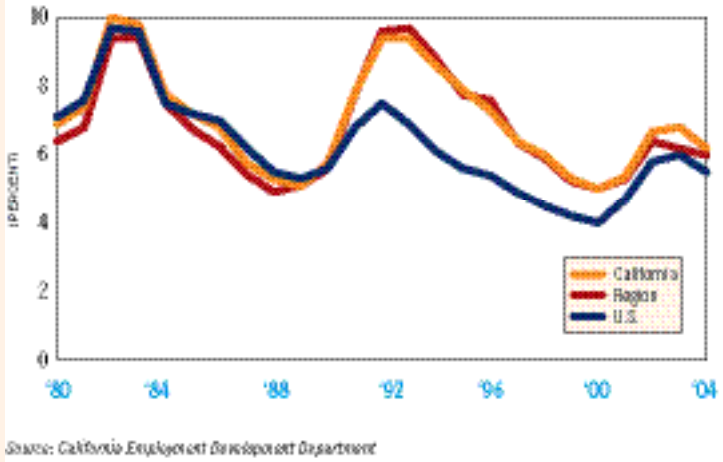
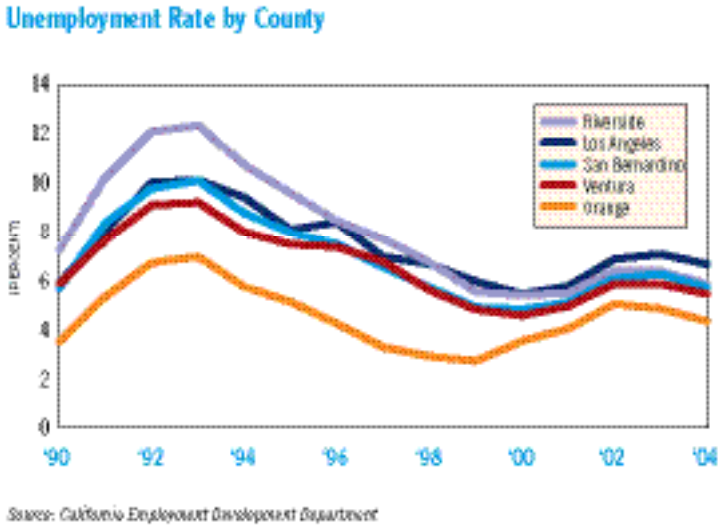
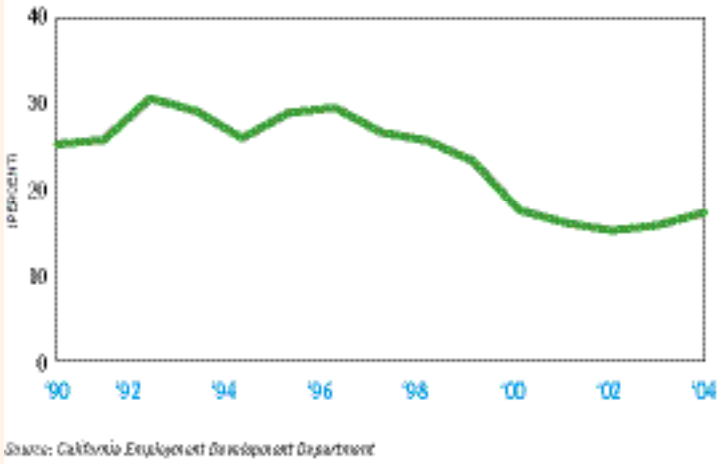


Figure 22



In 2004, the unemployment rate declined by about 0.5 percent in every county in the region except for Imperial County (Figures 22 and 23). Imperial County has historically experienced much higher unemployment rates than the rest of the SCAG region. Los Angeles County had the second highest unemployment rate (6.6 percent) in the region, followed by Riverside County (5.8 percent). At 4.3 percent, Orange County had the lowest unemployment rate in the region and one of the lowest in the nation.

Figure 23



Income

Average Payroll per Job

Why is this important?

The average payroll per job provides an indication of the overall quality of jobs available in the region. Higher average payroll per job contributes to higher per capita income.

How are we doing?

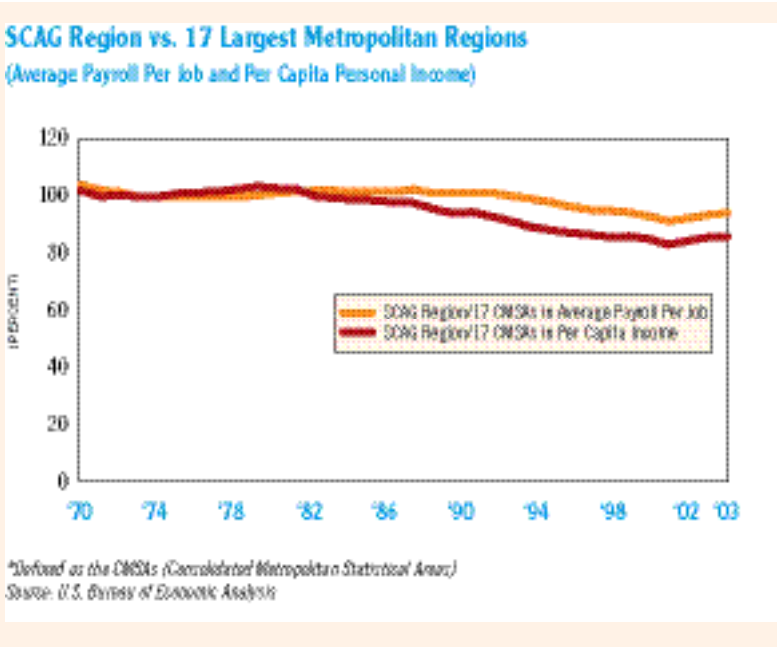
In 2004, based on preliminary data, the average payroll per job in the region was $43,190, an increase of 1.2 percent from 2003 after adjusting for inflation.[5] The information sector continued to have the highest average payroll per job ($73,180) followed by financial activities ($68,250). Leisure and hospitality had the lowest average payroll per job ($24,000) followed by retail trade ($28,410).

In 2003, the average payroll per job in the region increased slightly by 0.9 percent from the previous year after adjusting for inflation, following the decline of 0.8 percent in 2002. The rate of increase in the SCAG region was slightly higher than that of the average of the 17 largest metropolitan regions.

Between 2002 and 2003, six of the nine largest metropolitan regions achieved increases in their average payrolls per job in contrast to the previous period only one region experienced gains (see Figure 74). Among the three largest metropolitan regions that experienced declines in their average payrolls per job from 2002 to 2003, the losses were less severe than in the previous period. For example, both the New York and Boston regions suffered significant losses of about 3 percent in their average payroll per job from 2001 to 2002. However, from 2002 to 2003, both regions experienced only minor losses of 0.6 percent.

Prior to 1992, the SCAG region maintained an average payroll per job at or above the average of the 17 largest metropolitan regions (Figure 24). Between 1992 and 2000, it declined relative to the average of the 17 largest metropolitan regions from just below 100 percent to 91 percent. Since 2000, several of the largest metropolitan regions, including San Francisco Bay Area, New York and Boston, experienced much larger losses in average payrolls per job than the SCAG region. Hence, from 2000 to 2003, average payroll per job in the SCAG region relative to the average of the 17 largest metropolitan regions increased from about 91 percent to 94 percent.

Figure 24



In 2003, the SCAG region ranked last in average payroll per job at about $40,800 among the nine largest metropolitan regions (see Figure 75). The San Francisco Bay Area, after the 5 percent decline from 2001 to 2002, managed to achieve a slight increase (0.8 percent) in 2003 and continued to have the highest average payroll per job at approximately $53,000, followed by the New York Region at about $51,000.

Real Personal Income Per Capita

Why is this important?

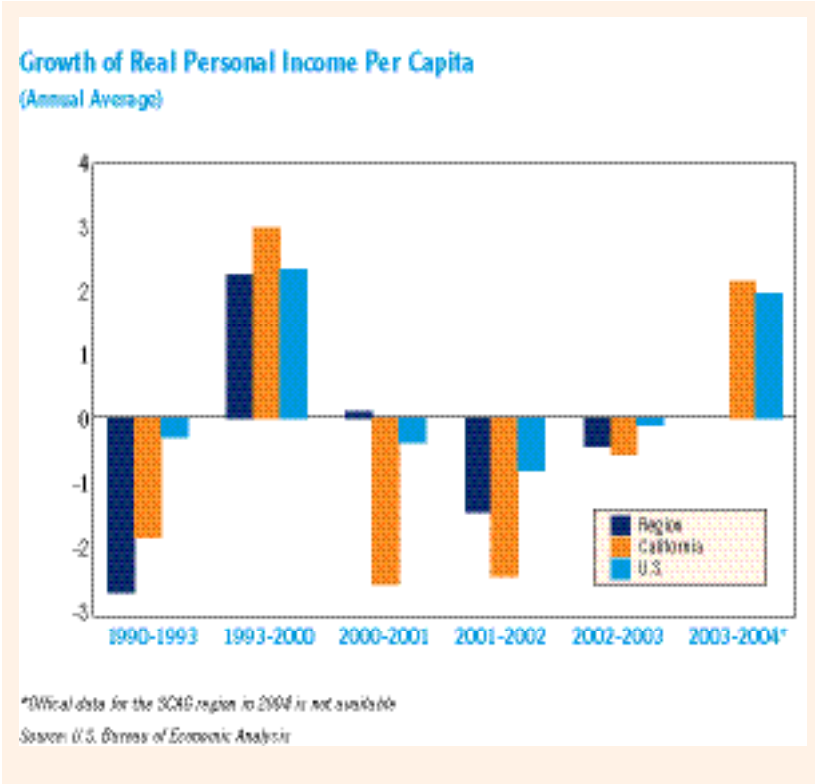
Real personal income per capita (with inflation adjustment) is one of the most important indicators of economic well-being. An increase in real per capita income is generally associated with improving social and economic indicators such as reduced poverty and an increase in educational attainment. A 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.

How are we doing?

In 2004, due to the economic recovery, real personal income per capita for the nation as well as the state achieved significant improvements (about 2 percent) parallel with the improvements in the job market (Figure 25). Specifically, real per capita income in the nation grew 1.9 percent, the first increase since 2000. Per capita income growth accelerated in all states except South Dakota, Nebraska and Michigan.

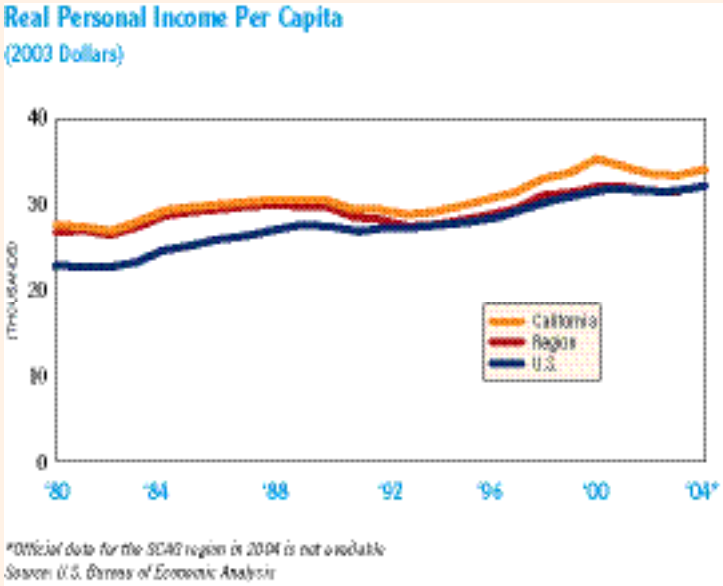
Official data for real personal income per capita for the region in 2004 will not be released until May 2006. Since 1992, per capita income in the region has been tracking closely that of the nation (Figure 26). In addition, between 2001 and 2003, the region performed somewhere between the nation and the state with respect to per capita income. Consequently, per capita income in the region was estimated to achieve a similar level of growth (about 2 percent) in 2004 as in the nation and the state. This would also represent the first gain since 2000.

Figure 25



In 2003 (the most current official data available at the regional level), the region's real personal income per capita of $31,477 was a 0.4 percent decline from the 2002 level (Figure 25). This decline was much smaller than the 1.5 percent loss during the previous period. However, it was

Figure 26



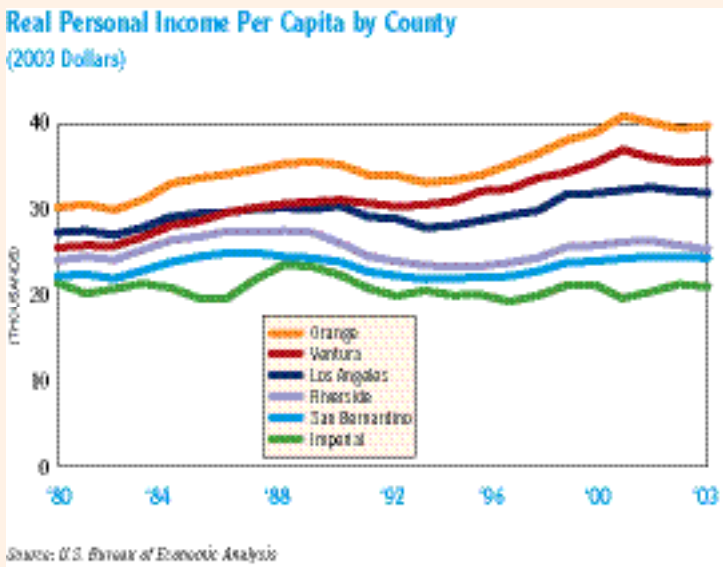
also the second consecutive year that the region suffered an absolute decline in real per capita income since 2000. The decline of the real per capita income in the region in 2003 was slightly higher than the 0.1 percent loss in the nation. Nevertheless, the region performed a little better than the average of the nine major metropolitan regions in the nation (-0.6%) and the state average (-0.6%) (see Figure 76).

Among the nine largest metropolitan regions in the nation, only two (Detroit and Philadelphia) achieved increases in their per capita incomes between 2002 and 2003.[6] Both regions were also the top performers with respect to the improvement of average payroll per job.

Among the 17 largest metropolitan regions in the nation, the SCAG region ranked last in terms of per capita income in 2003 and is expected to remain there in 2004. Over the past three decades, the SCAG region's per capita income ranking dropped from the 4th highest in 1970 to 7th highest in 1990, and 16th place in 2000. *Since 1982, the SCAG region's per capita personal income has been below the average of the 17 largest metropolitan regions, and the gap had increased until 2000. In 2003, per capita personal income in the SCAG region was 85 percent of the average of the 17 largest metropolitan regions, a slight improvement from the previous year* (see Figure 77).

Within the region, real personal income per capita in 2003 dropped slightly in Los Angeles, Riverside and Imperial counties while increasing slightly in Orange and Ventura counties (Figure 27). Per capita income in San Bernardino County remained almost unchanged in 2003 from 2002. In 2003, the real per capita incomes in Imperial and Riverside counties were lower than their respective 1990 levels. Orange County continued to have the highest per capita personal income while Imperial County had the lowest.

Figure 27



Total Personal Income

The SCAG region performed at a better level in its growth of total personal income than the per capita personal income. Specifically, real total personal income in Southern California grew by 3 percent between 2000 and 2003, following only the Washington D.C (5.3 percent) and Philadelphia (3.2 percent) regions. Among the nine largest metropolitan regions in the nation, the other six experienced declines or no growth during the three-year period. The San Francisco Bay Area suffered the worse performance with a sharp decrease of almost 13 percent in its real personal income while New York and Boston also experienced declines between 4 and 5 percent. Because the SCAG region had one of the highest population growth rates among large metropolitan regions, it would rank lower when comparing based on per capita instead of total personal income.

Household Income

Real median household incomes (after adjusting for inflation) in the nation and the state remained essentially unchanged in 2004 from 2003 while improving in Southern California.[7] Household income includes income from all sources for all members of the household. Nationally, real median household income at about $44,684 in 2004 was almost the same as in 2003, following the 1 percent decline between 2002 and 2003. In California, real median household income in 2004 remained the same as in 2003 at $51,185, after dropping 2 percent during the previous period.

Between 2003 and 2004 based on national data, real median household income did not change for all major racial/ethnic groups including non-Hispanic White, Hispanic, African American or Asian households. In addition, real median household income remained unchanged for native as well as foreign-born households. In 2004, native households had a median income of $45,319 which was higher than the incomes of foreign-born households ($39,421) and households maintained by a foreign-born householder who was not a U.S. citizen.[8] Within the nation, households in the Northeast ($47,794) and the West ($47,680) had the highest median incomes followed by those in the Midwest ($44,657). Households in the South had the lowest median income ($40,773).[9]

Within the region, real median household income declined between 1990 and 2000, which was contrary to the national trend.[10] Recent Census surveys indicated that the region experienced no growth

in median household income between 2000 and 2003. *In 2004, real median household income in the region increased 2.6 percent from 2003 and reached $50,106,* the first gain since 2000. Within the region, Orange County experienced the most improvement with a 5-percent increase to reach $64,416. In 2004, while median household income in the San Francisco Bay Area declined by 4.5 percent from 2003 level to $64,611, it still continued to be the highest among the 17 largest metropolitan regions.

Income Inequality

One way to measure income inequality is through the household income ratios among households at different percentiles. For example, the income level for the 90th percentile indicates how the highest income class fared in a given year while the 10th percentile indicates the lowest income class. The 90th percentile is the level of income for a given area that 90 percent of households are beneath. The 10th percentile is the level of income that 10 percent of households are beneath. At the national level, income inequality has been increasing steadily since 1969.[11] Between 1979 and 1999, the SCAG region generally had a slightly higher income inequality than the nation when comparing household income ratios.[12] In 2004, income inequality at the national level remained almost the same as in 2003.[13] In 2004, the very rich households (90th percentile) had an income about 11 times that of the income for the very poor households (10th percentile).

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. The poverty line is adjusted for family size. Poverty not only results in current economic hardship, but also limits an 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 a higher risk for dropping out of school, poor health, teenage pregnancy and a long-term economic disadvantage as adults.

How are we doing?

In 2004, a family of four (including two children) earning less than $19,157 a year was classified as living in poverty, compared with $15,205 for a family of three; $12,649 for a family of two; and $9,827 for unrelated individuals.[14] Between 2003 and 2004, poverty rate for all people increased slightly in the nation while it remained unchanged in California. Nationally, the poverty rate increased from 12.7 percent in 2003 to 13.1percent in 2004 for all persons. The poverty rate has been climbing since 2000, when it hit a 26-year low of 12.2 percent. The poverty rate for children also increased from 17.7 percent in 2003 to 18.4 percent in 2004. In California, the poverty rate for all people remained unchanged at 13.3 percent between 2003 and 2004.

In the SCAG region, 14.3 percent of residents lived in poverty in 2004, continuing to be higher than in the state (13.3 percent) and the nation (13.1 percent).[15] In addition, about 20 percent of children under 18 were below the poverty line in 2004. The poverty rates for all people and children under 18 in the region have remained unchanged since 2000. The poverty rate was highest for female-headed households (28 percent), and lowest for persons aged 65 and over (8 percent). *In 2004, the region continued to have the highest poverty rate among the nine largest metropolitan regions in the nation.*

Taxable Sales

Why is this important?

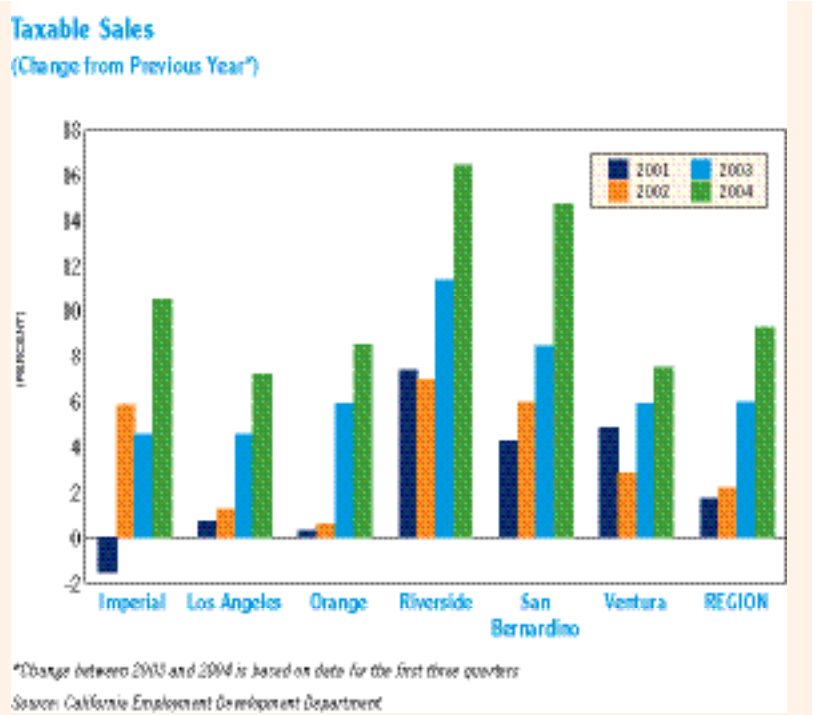
Taxable sales provide important revenue sources for state and local governments and special districts. While employment and income are measures on the production side, taxable sales measures the level of consumption activities. Taxable sales tend to follow closely with trends in personal income, job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

How are we doing?[16]

In 2004, total taxable sales in the region was estimated to increase by more than 9 percent from 2003, a significant improvement from the 6-percent growth between 2002 and 2003 (Figure 28).[16] Between 2003 and 2004, every county in the region achieved the highest rate of growth in taxable sales since 2000. From 2000 to 2002, total taxable sales in the region increased by only 2 percent per year. The wealth effects due to significant increases in home equity, particularly during

2003 and 2004, contributed to the accelerated growth in taxable sales. Within the region, Riverside (16.4 percent) and San Bernardino (14.7 percent) counties continue to have the highest rates of growth in taxable sales.

Figure 28



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 can 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?

Between 2003 and 2004, total trade through the Los Angeles Customs District (LACD) increased from $291 billion to $323 billion (or 11 percent), a new record level. This was an improved performance from a 9-percent increase during the previous period (Figure 29). Among the $32 billion increase, $29 billion was through imports, and another $3 billion through exports.

Among the $323 billion in trade passing through the LACD, imports accounted for 78 percent, exports 22 percent. In 2004, among the $71 billion exports out of the LACD, almost half were by air with the other half by sea. Exports by air are generally smaller and higher value goods. On the other hand, among the $252 billion imports into the LACD, 86 percent were by sea with the other 14 percent by air.

Figure 29

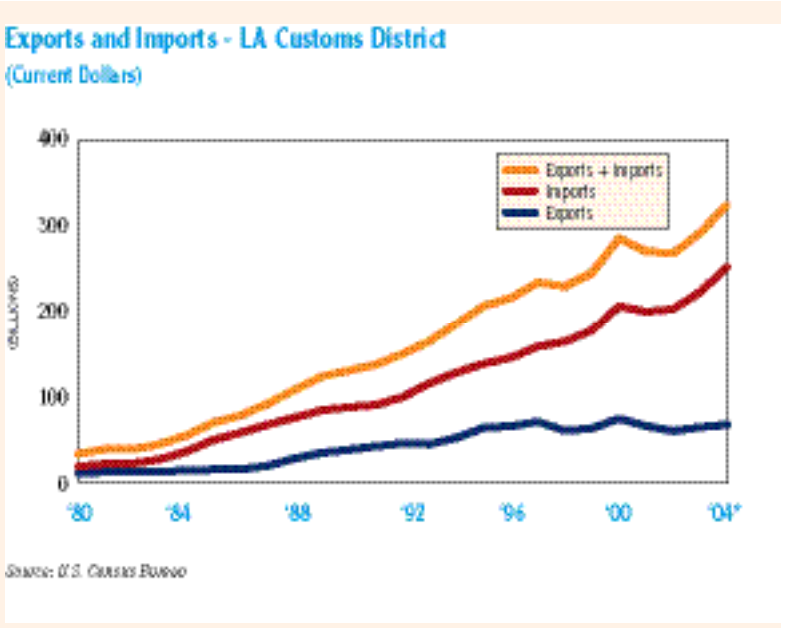
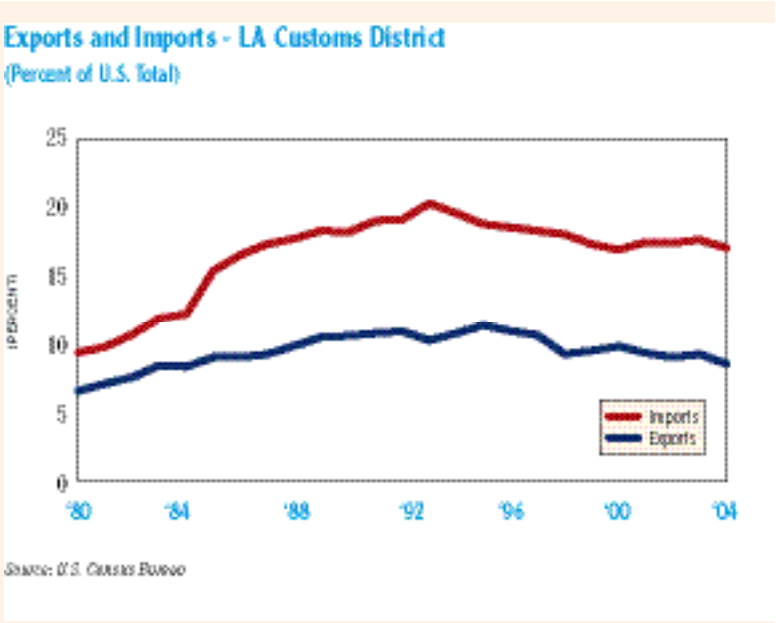


Figure 30



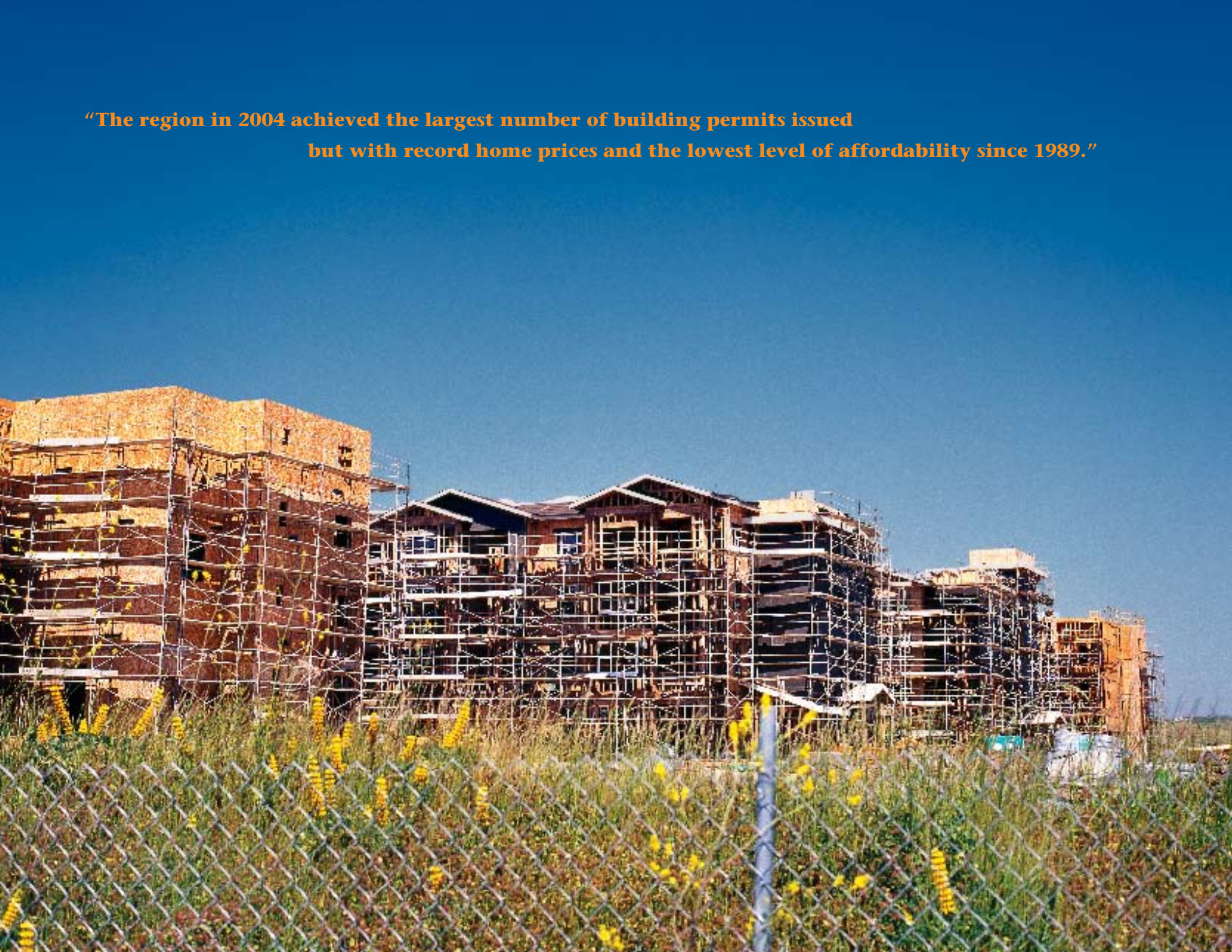
The region's prominence in international trade has been fostered through its large domestic market, global ties through its growing Asian and Hispanic communities, strategic location, and excellent trade infrastructure serving the rest of the nation. Total trade through the LACD increased from less than $40 billion in 1980 to $323 billion in 2004, an eight-fold increase (Figure 29). The region's direct employment in international trade also increased from about 175,000 in 1980 to 405,000 in 2004, which represents an increase of 45,000 jobs from 2003.[17] Trade jobs are found in a variety of activities, including vessel operation, cargo handling, surface transportation (truck and rail), trade finance, freight forwarding, custom brokerage, insurance, etc. Between 1980 and 2004, the share of the LACD's trade value of the U.S. total grew from about 8 percent to over 14 percent.

The shares of the LACD's export of the U.S. total have ranged between 9 and 10 percent for the past five years while shares of imports have been between 17 and 18 percent (Figure 30). The share of LACD's trade of the U.S. total has remained around 14.5 percent since 1998.

In 2004, the LACD retained the number one ranking in the U.S in terms of total trade value, followed by the New York Customs District with $245 billion total trade value. Detroit remained the nation's number three customs district with $206 billion of its two-way trade value.

Asian countries dominated both imports (86 percent) as well as exports (72 percent).[18] *In 2004, China continued to be Southern California's leading trade partner, surpassing Japan in 2002.* Total trade value with China through LACD reached over $86 billion in 2004 with a 25 percent increase from 2003, almost double the corresponding value with Japan of $44 billion in second place. Other major trade partners included South Korea, Taiwan and Malaysia.

"The region in 2004 achieved the largest number of building permits issued but with record home prices and the lowest level of affordability since 1989."



HOUSING

Housing Construction

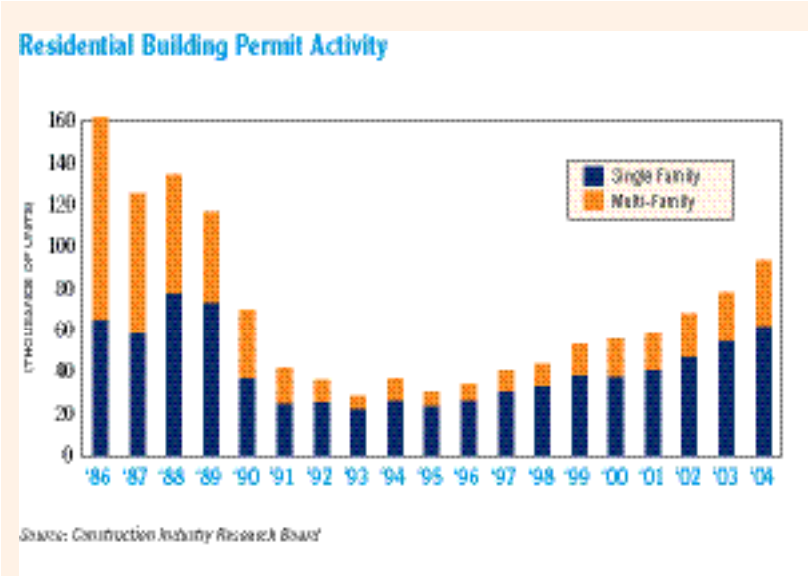
Why is this important?

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

How are we doing?

In 2004, the region experienced the largest number of residential building permits issued (93,200 units) as well as the largest increase (15,000 units or 19 percent) in a one-year period since 1989 (Figure 31). *Notably, the number of permits for multi-family units increased by 33 percent in one year.* Between 1995 and 2001, the number of permits issued rose steadily, and since 2001 the rate of increase has accelerated. Total number of permits issued in 2004 more than doubled that in 1998.

Figure 31



Within the region, the Inland Empire counties accounted for about 56 percent of the total permits issued in 2004. In particular, Riverside County led among the six counties in the total number of permits issued (33,900), more than a third of the regional total, followed by Los Angeles County (26,800). However, San Bernardino led in the increase of permits issued (both the rate and the absolute number), up 42 percent from 2003. Between 2003 and 2004, the number of building permits in Los Angeles County increased by 26 percent, followed by Riverside County at 12 percent. In contrast, both Orange and Ventura counties experienced a decline in their number of building permits. In Orange County, the permit tally dropped in two consecutive years to about 9,000 in 2004, the lowest since 1995.

Among the total permits issued in 2004, about 33 percent were for multi-family housing, an increase from about 30 percent over the past four years. *However, within the region, there continued to be significant differences between the coastal and inland counties with respect to the share of multi-family housing permits*. Specifically, over half of the permits issued in Los Angeles County (56 percent) and Orange County (53 percent) were for multi-family housing (Figure 32). In Ventura County, the share of multi-family housing permits was 33 percent, a significant increase from the 14 percent share just two years ago. In the remaining three inland counties, over 80 percent of the total permits were for single-family housing construction. The share of multi-family permits in San Bernardino County, however, increased from 14 percent in 2003 to 23 percent in 2004.

Figure 32

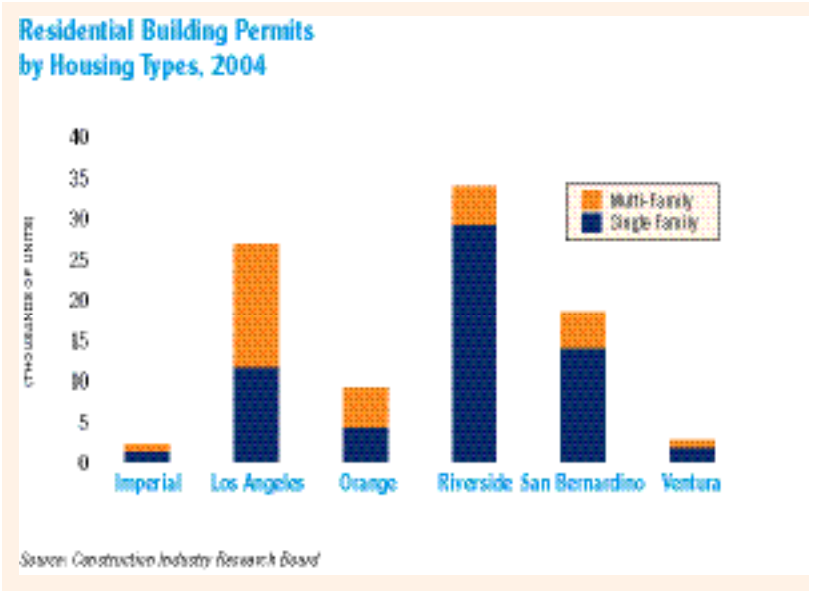
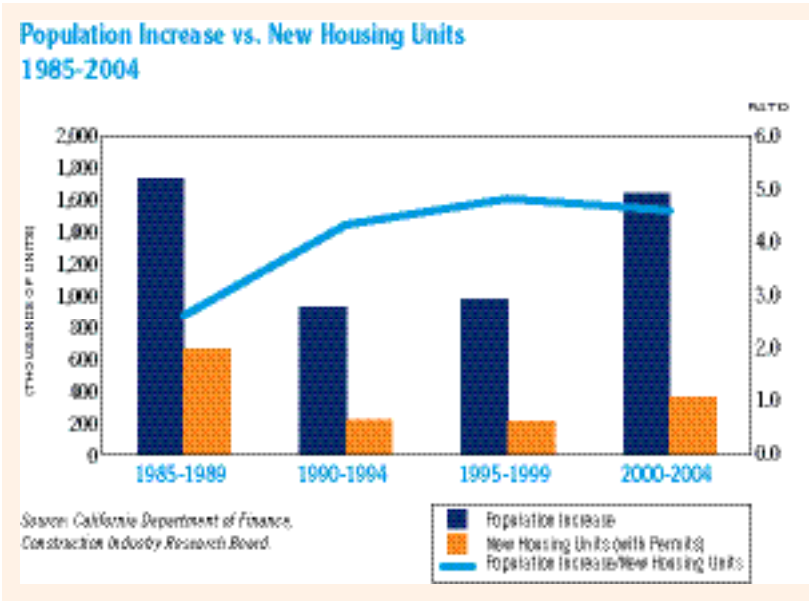


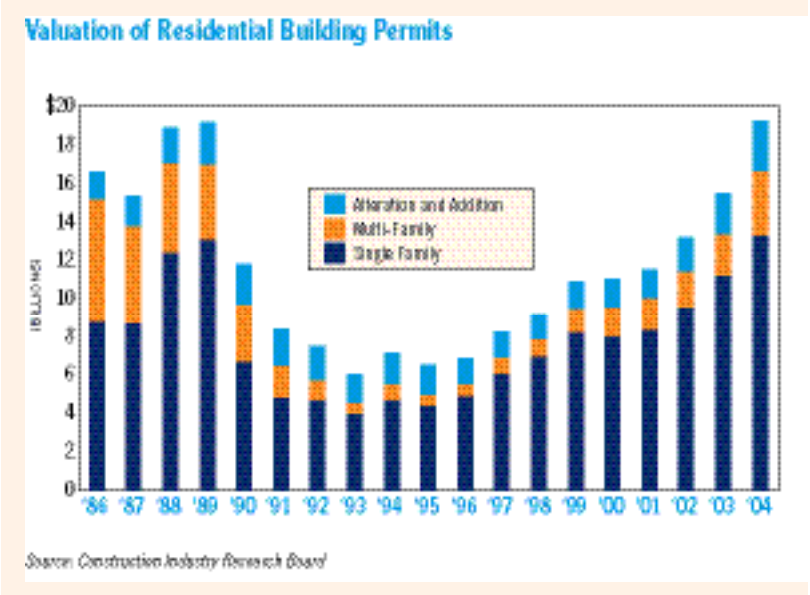
Figure 33



Despite the continuous increase of permit activities in the past five years, housing construction continued to lag behind housing demand generated from population growth. For example, total numbers of building permits issued during the period from 2000 to 2004 were over 350,000 housing units, a 75 percent increase from about 200,000 units in the previous 5-year period. However, population in the region increased by more than 1.6 million between 2000 and 2004 compared to only 980,000 between 1995 and 1999, a rise of 67 percent (Figure 33). Hence, in spite of the significant increase in building permits in recent years, the ratio between population growth and new housing units with permits declined only slightly from 4.8 persons per unit (during the period between 1995 and 1999) to 4.6 persons per unit (during the period between 2000 and 2004), that was still significantly higher than the average household size of 3.1 persons per unit.

Total valuation of permits in 2004 reached over $19.3 billion, with the largest annual increase of $3.8 billion (or 25 percent) since 1987 (Figure 34). Between 2001 and 2004, total valuation of permits increased by $7.7 billion. *While the housing construction industry in the region almost collapsed during the recession in the early 1990s, it has been serving as an important stabilizing force for the regional economy since the 2001 recession.*

Figure 34



Homeownership

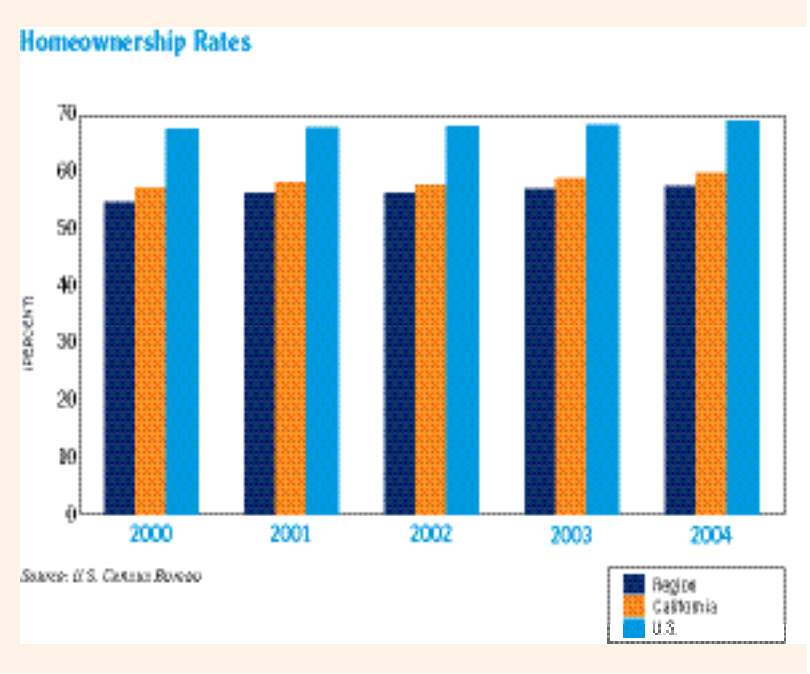
Why is this important?

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

How are we doing?

In 2004, homeownership rates increased slightly at the national, state and regional levels. Nationally, the homeownership rate increased slightly from 68.3 percent in 2003 to 69 percent in 2004. During the same period, homeownership in California increased from 58.9 percent to 59.7 percent while it increased from 56.9 percent to 57.4 percent in the SCAG region. Since 2000, homeownership in the region increased by almost 3 percent and the number of homeowner households rose by about 250,000 (Figure 35).

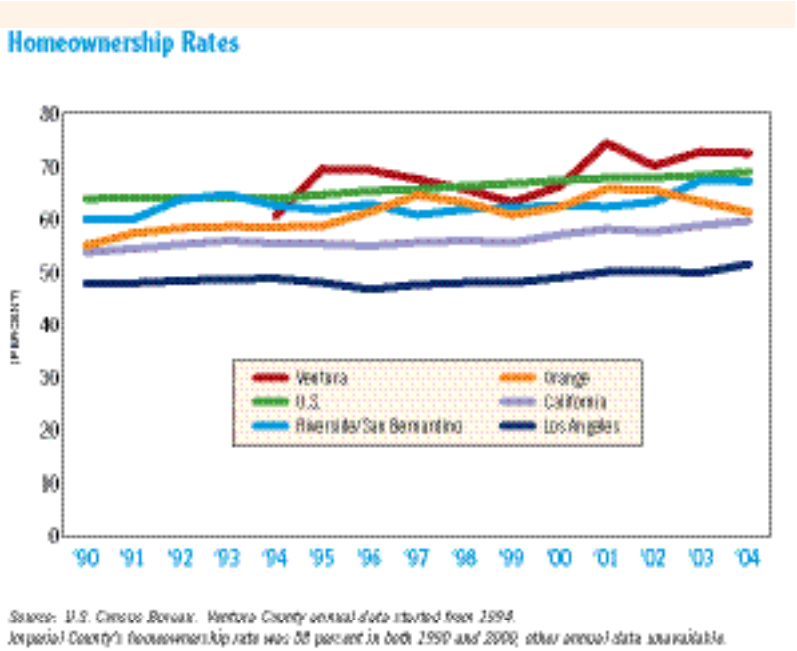
Figure 35



Within the region, Los Angeles County enjoyed notable increases in homeownership from 50 percent to 51.6 percent between 2003 and 2004. In contrast, homeownership rate in Orange County dropped from 63.4 percent to 61.4 percent, a third consecutive year of decline after reaching its peak at almost 66 percent in 2001. Slowdown in housing construction and relatively higher housing prices contributed to the decline in homeownership in Orange County.

In 2004, Ventura County's homeownership rate at about 72.5 percent remained the highest in the region, though with a slight decline (0.3 percent) from the previous year. It is also the only county in the region with a rate higher than the national average. Homeownership in Riverside/San Bernardino counties remained the second highest in the region, even though it declined slightly from 67.4 percent to 67.2 percent. At 51.6 percent, Los Angeles County continued to be the only county in the region with a homeownership rate lower than that of the state and the nation.

Figure 36



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

Among the nine largest metropolitan regions in the nation, Detroit's homeownership rate at 73 percent in 2004 was higher than the national average.[2] Only two regions, New York and the SCAG region, had rates below 60 percent.

Housing Affordability

Why is this important?

Housing affordability provides an indication of the level of financial burden of housing expenses. Housing constitutes 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 influences business decisions to locate or expand in the region. Lack of affordable housing will result in a weakening of our region's attractiveness and competitiveness.

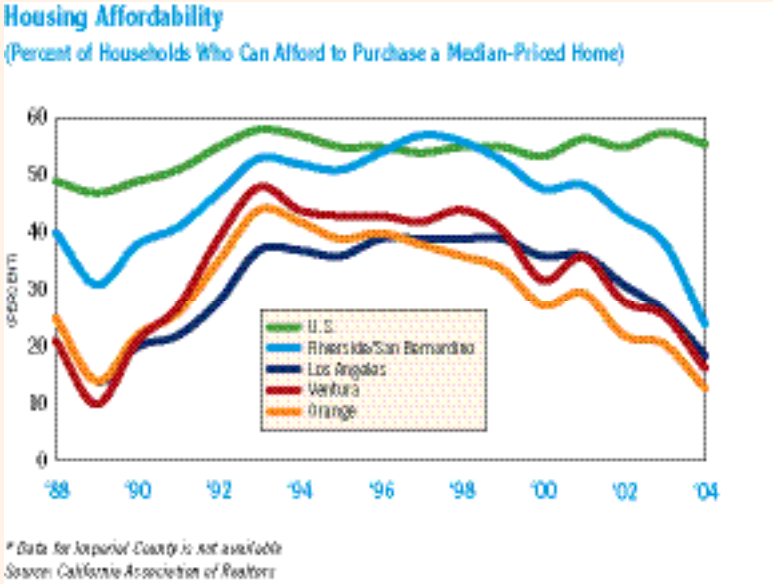
How are we doing?

Housing affordability can be measured by the share of households that can afford to purchase a median-priced house or by the share of household income spent on housing. *By both measures, housing affordability continued to decline throughout Southern California in 2004.*

In the three coastal counties (Los Angeles, Orange and Ventura), the share of households able to afford a median-priced home dropped below 20 percent in 2004, the first time since 1989. Each of the three counties experienced a sharp decline of affordability between 7 and 9 percent in one year. In Los Angeles County, the affordability measure dropped from 26 percent in 2003 to 19 percent in 2004, after a 5-percent drop in the previous period. In Orange County, the affordability measure dropped from 21 percent in 2003 to only 13 percent in 2004.

The sharpest decline of affordability occurred in the traditionally more affordable Inland Empire where the share of households able to afford a median-priced home dropped 14 percent, from 38 percent in 2003 to only 24 percent in 2004 (Figure 37). *In 2004, every county had lower housing affordability than the national average and the gaps have continued to widen since 1997.* While close to 56 percent of the nation's households could afford a median-priced house in 2004, less than one-fifth of the region's households could achieve the same.

Figure 37

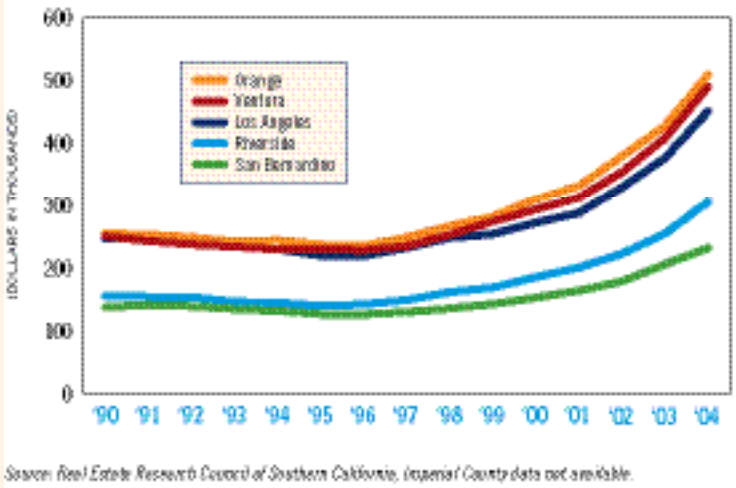


Housing affordability is generally impacted by household income, home prices and mortgage interest rates. *During 2004, continuing sharp increases in home prices significantly outpaced the modest growth in household incomes and offset gains from lower interest rates, making housing less affordable.*

There has been a lack of growth in median household income in the region between 2000 and 2003. From 2003 to 2004, real median household income increased by 2.6 percent, the first gain since 2000, after a slight decline during the 1990s. In addition, real per capita income in the region also achieved its first gain since 2000, of approximately 2 percent.

However, average home prices in the region reached historic peaks in 2004 in almost every county (Figure 38). Since 1998, after recover-

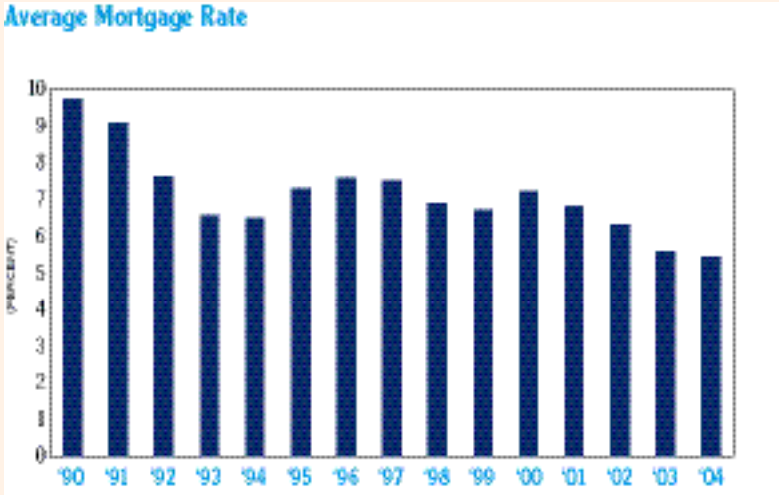
Figure 38



ing from the losses during the previous recession, average home prices had increased between 6 and 7 percent per year up to 2001. Between 2001 and 2004, partly because of lower mortgage interest rates and significant population growth, average home prices increased by about 55 percent in coastal counties and 47 percent in the Inland Empire. For example, the average price for new and existing homes in Orange County rose from $330,000 in 2001 to $510,000 in 2004, an increase of $180,000 in just three years. During the same period, average home price increased from $200,000 to $310,000 in Riverside County. Between 2001 and 2004, home price in Imperial County also increased from about $125,000 to $170,000, up by 36 percent.[3]

The record high home prices were affected by several factors including low interest rates, wider availability and uses of non-traditional mortgage financing and the accumulation of unmet demand since the early 1990s. Working together, these factors have significantly widened the imbalance between housing demand and supply. In 2004, average mortgage interest rate at 5.5 percent was the lowest in the past 40 years (Figure 39).

Figure 39



Lower interest rates could allow for higher selling prices and still keep the same monthly mortgage payment amount. In addition, there are wider availability and uses of non-traditional mortgage financing in recent years. Many Southern Californians are relying on adjustable rate mortgages and interest-only mortgages instead of the traditional 30 year fixed rate mortgages. These nontraditional mortgages allow buy-

ers to borrow more money than they could with traditional mortgages but pose potential risks when loan payments rise later. Statewide data indicated that interest-only loans increased from 2 percent of mortgages for homes bought in 2001 to almost half of mortgages for homes bought in 2004.[4] Finally, since the early 1990s, the region has been accumulating unmet demand for housing due to the lack of adequate level of housing construction relative to population growth (see Figure 33).

In 2004, over 45 percent of the region's owner households (with a mortgage) had monthly costs at or greater than 30 percent of household incomes, up from 40 percent in 2000 (Figure 40). Statewide data further indicated that 20 percent of recent California homeowners (those who have purchased a house within the last 2 years) spend more than half of their incomes on housing costs.[5] At the national level in 2004, only 33 percent of owner households had monthly costs at or greater than 30 percent of household incomes. *In 2004, the SCAG region continued to have the highest homeowner housing cost burden among the nine largest metropolitan regions in the nation.*

Between 2000 and 2004, average rents in the region increased generally between 2 to 4 percent per year after adjusting for inflation (Figure 41). In 2004, average monthly rents were about $1,350 in the coastal counties and just below $1,000 in the Inland Empire. With rent increases significantly exceeding household income growth, rental cost burden has continued to rise. *In 2004, among the approximately 2.4 million renter households in the region, more than 54 percent (1.3 million renter households) spent 30 percent or more of their incomes on rent, up from 49 percent in 2000* (Figure 42). Since 2000, rental cost burden has been increasing at the regional, state and national levels.

Figure 40

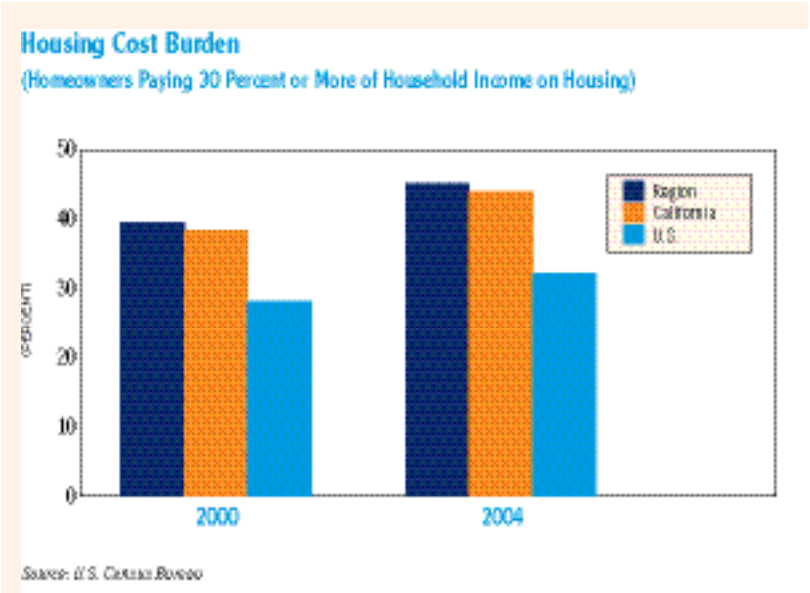


Figure 41

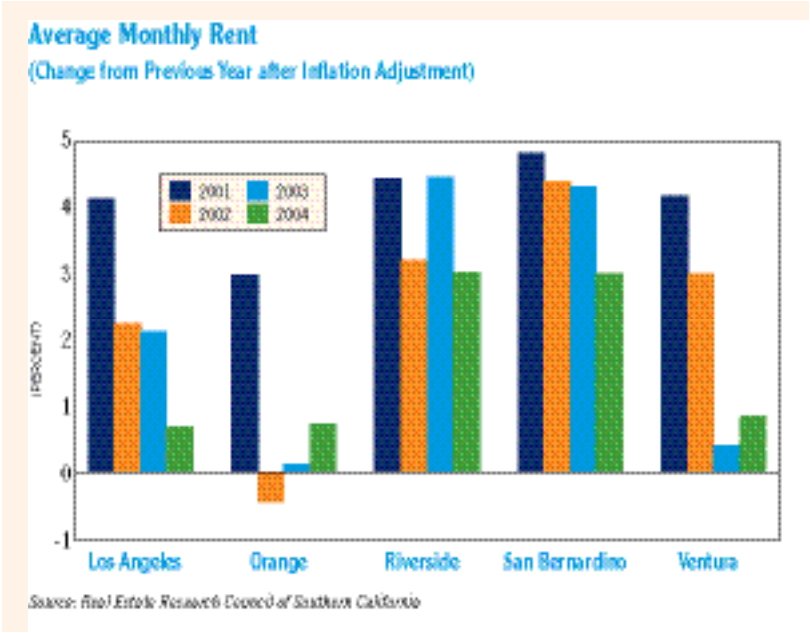
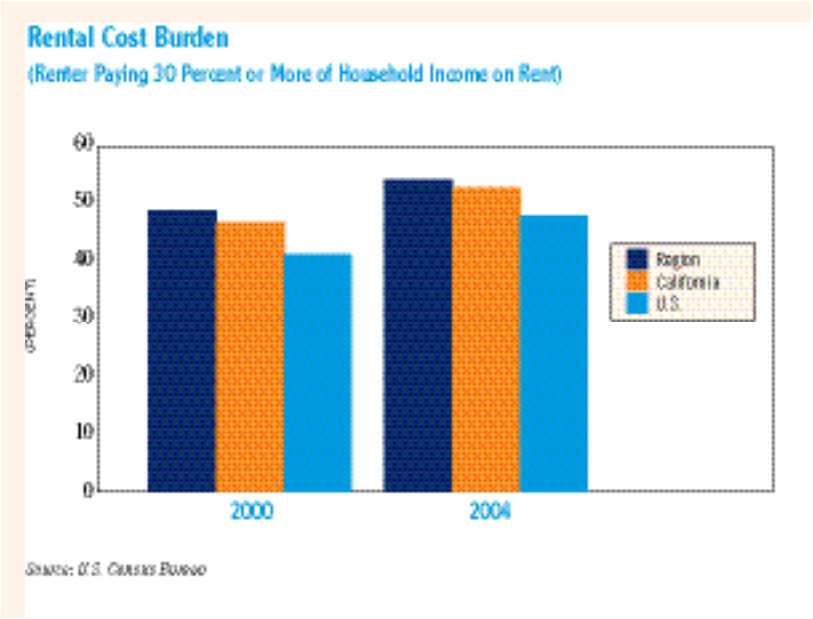


Figure 42



Among the nine largest metropolitan regions in the nation, the SCAG region continued to have the highest percentage (54 percent) of rental households with monthly rent at or greater than 30 percent of household income. Following the SCAG region was the San Francisco Bay Area, with 50 percent of renters spending 30 percent or more of their incomes on rent. In addition, California had the highest median rent among all the states in 2004. Hence, rental housing is an important public policy issue at the regional as well as the state levels.

The extraordinary high housing cost burdens not only impact the well-being of residents but also discourage business decisions to locate or expand in the region. Lack of affordable housing remains a serious challenge to the region's long-term economic growth.

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 an indication of housing shortages and housing affordability. Lack of affordable housing will lead to higher levels of housing crowding.

How are we doing?

In 2004, more than 11 percent of the occupied housing units were considered to be crowded, a 1.2 percent reduction from the previous year.[6] Between 2000 and 2004, the share of crowded housing in the SCAG region declined by 2.7 percent. Within the region, Los Angeles County continued to have the highest rate (12.7 percent). In 2004, Southern California continued to have the highest rate of crowded housing among the nine largest metropolitan regions.[7]

ESSAY

THE 2% STRATEGY: A BOLD NEW APPROACH TO SHAPE THE FUTURE OF SOUTHERN CALIFORNIA

by Randall Lewis

Looking ahead at the housing situation in Southern California, it is not a pretty picture. In fact, it is terrifying! We are facing a crisis of affordability, as evidenced in the Housing Chapter of this *State of the Region* Report. At the same time we have major challenges with mobility, livability in our communities and, in fact, the prosperity and sustainability of all Southern Californians. This situation will require regional leadership, vision and courage. SCAG's Compass 2% Strategy offers a bold new approach and vision. I will discuss why it's needed in Southern California, why it's a good thing, and what steps are necessary for its implementation.

Why It's Needed

The need for fresh thinking is driven by the tremendous population growth that will be coming to Southern California in the next two decades. It is estimated that Southern California will grow by five million people in the next 25 years. Southern California continues to be an attractive place for people, and this attractiveness to new-comers, as well as the natural increase due to births from our existing population, will result in enormous population growth. Our infrastructure is already strained in existing areas and our scarce resources will not be able to accommodate this growth using old-fashioned patterns of development. Finally, changing demographics and lifestyles also call for new thinking regarding how and where we live. The 2% Strategy offers a fresh approach.

The 2% Strategy has evolved out of the Southern California Compass regional visioning process. It is an approach to optimally accommodate growth in the region. The strategy promotes a concentration of new and infill development along existing and planned transportation corridors and new urban centers. SCAG's current focus is to initiate pilot and

voluntary demonstration programs, to target technical assistance to cities containing critical growth opportunity areas as identified in the 2% Strategy, and to provide proper tools and training to encourage participation and cooperation.

Why It's a Good Thing

There are many benefits to the 2% Strategy. It can:

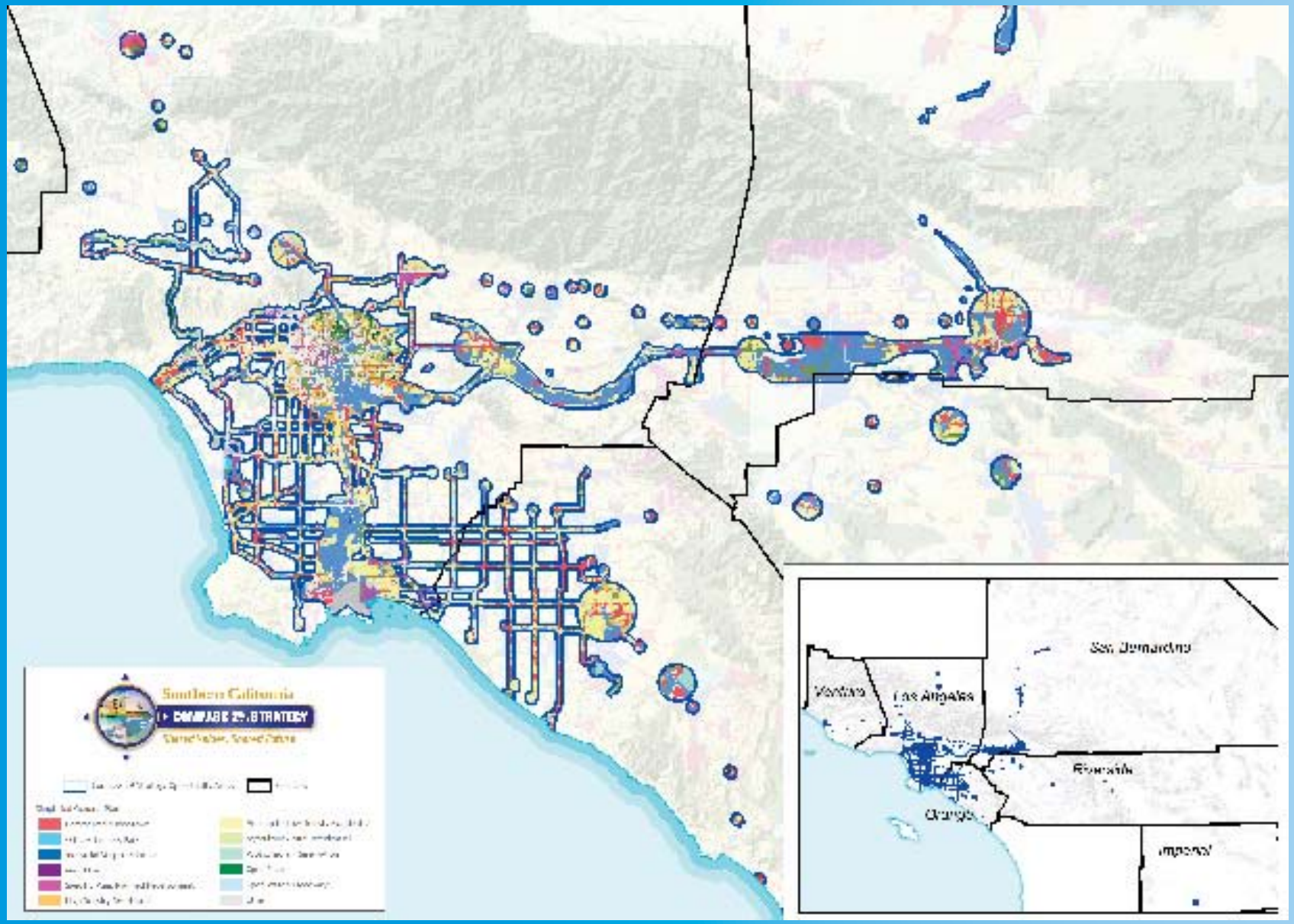
– allow for the preservation of valuable open space;
– lessen traffic on our crowded roads and highways;
– help reduce air pollution;
– lessen our dependency on foreign oil;
– increase prosperity in our existing cities and lead to a better business climate;
– create more livable communities that are more walkable and more interesting;
– encourage sustainability for the environment;
– lead to the building of different types of housing that are more appropriate to our changing demographics.

The 2% Strategy is good for cities and counties, offering many resources for implementation. It is also good for providers of housing by encouraging creation of new opportunities for development.

What Steps are Necessary for Implementation

Here are some steps needed to implement this strategy. They include, for example, taking the appropriate actions in producing the right mix of housing, using regulatory tools more proactively, and giving more emphasis on design, mixed-use developments, master planned communities, new towns and public/private partnerships.

First of all, we must understand Southern California's changing demographics, which are more diverse than ever. Southern Californians are living in many different household types, such as singles, couples, retirees and single heads of households. Many of these household types no longer need or want the traditional big home on a big home site. There are many different lifestyle preferences, such as people seeking recreation-oriented communities, live/work developments, gated communities, homeowner association communities, etc. Often smaller size homes better meet the spatial and financial requirements of these non-traditional households. Common areas such as pools, pocket parks and gathering spaces can be quite popular. As providers of housing we must be more like a consumer goods industry that has detailed knowledge on the preferences and tastes of our customers. There currently is a real mismatch between much of our supply of housing and this new diversified housing demand. There are estimates that up to 70% of the new households that will be formed in the future will be non-traditional households. Many builders


Southern California
San Bernardino
Ventura
Los Angeles
Riverside
Orange
Imperial

are still providing houses oriented towards the more traditional family market with two parents and two to four children. These homes are often 1,500 to 3,500 square feet, with 6,000- to 7,000-foot home sites. This type of family housing is still valid for many families but there is not enough smaller lot and condo/townhouse-type housing being built for the smaller households. There is no typical household any more, and there should not be a typical housing type either.

Next, cities and counties should use incentives to get the types of housing they desire and need. The easiest incentive is speeding up the time it takes to entitle and build housing. This incentive doesn't have to cost anything in terms of dollars or oversight, but it's extremely valuable to providers of housing. It can cut down financing costs, lessen the risk of economic cycles, and lead to less expensive housing in this era of rapidly rising construction costs. A second incentive is the incentive of density. Increased density can significantly lower land costs and lower the costs of infrastructure. In many suburban markets, land now costs upwards of $500,000 per acre. If there are four homes per acre, the raw land cost is $125,000 per home; if there are 10 homes per acre, the raw land cost is $50,000 per home, which can be a significant savings. In addition, there are many fixed costs to a development, such as perimeter walls, traffic signals and street lights, and greater density dramatically drives down the per-dwelling-unit cost of items like these. Other types of incentives can include lower fees, faster inspections, and reductions in unnecessary standards and requirements.

Building codes and requirements should be examined to make sure they are compatible with the latest trends in higher density housing. All across the country there have been great innovations in architecture and land planning, but it's necessary that local codes be updated to allow for these new patterns of building. Zoning changes should be handled through general plan updates in advance of specific projects being submitted for review. This will save time and potentially avoid controversy.

We must recognize that design is more important than density. It is the quality of the design that truly is important, and good projects with density must integrate architecture, land planning and landscaping to be good neighbors. While densities definitely need to be higher in the future, unlimited density is not the answer. Each market area has a right density, and a multi-discipline approach is needed to discover the right density. Factors such as surrounding neighborhood housing types, construction costs, sales prices, market acceptance, demographics, and politics all enter into the analysis of the right density. Southern California has many good examples of attractive higher density housing and it also has some not-so-good examples. House tours or visual preference surveys done with photographs are both excellent ways to show both good and bad examples of higher density. We should also remember that with future investments in transit and with the beginning of people using car sharing, there will be increasing interest in housing near good transit.

There will be new providers of housing in the future, and cities and counties must understand who these providers are, what their roles are in the economy, and the best ways of dealing with each type of provider. Examples of these providers are large national homebuilders, regional and smaller homebuilders, planned community developers, not-for-profits, for-profits doing affordable housing, retailers with extra land above

or around their shops and stores, office owners with extra parking, corporate and industrial owners with extra land, and redevelopment agencies. Each of these providers has different issues that need to be understood. For example, larger providers of housing will probably not be as interested in small sites and will not be able to devote the proper resources to do them justice. Likewise, smaller developers might not be as appropriate for larger sites because it would strain their resources. When choosing builders, cities should consider their capabilities and expertise to insure the right team for each site.

Rental housing will play an increasing role in housing Southern Californians in the future. Some households will rent because it is all they can afford, but there are also many renters by choice who choose to rent because they enjoy the lifestyle of having someone else do the maintenance or because they're at a period in their lives when renting makes more sense. Most of the rentals going forward will be at the very high-end or at the subsidized end of the market because it's quite difficult to build anything in between. The high costs of land, soaring construction costs, and increasing competition for rental sites make it very difficult to build any housing except at the very high end, which must be expensive enough to cover all of the costs. Currently, for-sale builders are able to outbid rental developers on most sites, which exacerbates the problem of not having enough land for rental housing. Home ownership is an admirable goal but we must recognize that there will be a strong role for rental housing, and it will be difficult and expensive to provide rental housing.

We must understand that master planned communities will play an increasingly larger role in housing our population in the future. These communities offer many benefits, such as more comprehensive planning; proper placement and financing of infrastructure, such as schools, parks and public amenities; better segmentation of different housing types to reach all of the markets; and usually stronger standards for design and maintenance.

There will also be new towns developed in Greenfield areas. New town development will be a key part of the growth in the future. These new towns will have the benefit of comprehensive planning starting from the beginning, and can offer an enviable balance of jobs, houses, community amenities and open space preserva`tion. New town development will require new thinking in terms of financing, infrastructure construction, economic development, and creating a sense of community. Through innovative planning at the regional level, these new towns complement the economic strategy of existing urbanized areas. They also provide opportunities for sustainability and environmental stewardship. New towns offer a fresh opportunity towards a comprehensive approach to community building. Great sustainable communities are about a lot more than just homes. They include physical infrastructure, such as roads and schools and public buildings; natural infrastructure, such

as trails, parks and meaningful open space; and social infrastructure, such as systems for safety, for economic development and for community involvement and enhancement. New towns will be built in North Los Angeles County, in North San Bernardino County and in Eastern Riverside County. New town development must be a part of Southern California's future development. Relying only on in-fill housing is not enough because the supply of housing cannot be built quickly enough and in the right places. I believe new towns should be part of the region's development strategy and that new towns need to be planned properly and smartly.

Planners must study mixed-use developments, integrating residential with other uses, such as office and retail. Mixed-use development, while attractive, has complex issues such as noise, odors, parking, financing, increased construction costs, and many others. In many cases, mixed use is more easily done horizontally with uses next to each other instead of vertically, with uses on top of each other. Our experience is that mixed-use developments have the potential to become great places that not only are attractive but also make the surrounding areas more attractive. These projects may take place in existing urban centers as well as near new transit centers and corridors.

Educating city councils, planning commissions, development staffs, producers of houses, and the general public on the complex issues of growth is critical. City councils need some big picture education on issues of growth and latest thinking on regional solutions to the housing crisis. At the planning commission and city staff level, the education must be more at the "how to do it" level. Cutting edge design and development is complicated and only through training and education can planning commissioners and development staffs learn the best ways to take their cities' projects into the future. The producers of housing also need to be educated since they often only know what they are comfortable with and may not be as exposed to fresh thinking as they should be. Perhaps the most important group to educate is the general public.

Recently the Executive Director of SCAG gave a presentation to community leaders and members of the public in an Inland Empire community. When they heard his message, they all responded quite favorably to the Southern California Compass program. We have found a very useful tool in educating stakeholders is a tour that starts in their city and then goes to see samples of best practices in other cities. We have done more than a dozen of these tours in the last three years. They typically take three to six hours and allow participants to see and comment on development projects that they like and don't like. The feedback after these tours has always been extremely positive and it is a tool I recommend heartily.

Only through an education process can community leaders have courage and vision as the dialog regarding the 2% Strategy continues in Southern California. In my opinion, the 2% Strategy is not optional. By showing people how important it is for solving issues of congestion and housing affordability, we can better win public support. The public must also

understand that as Southern California competes for jobs and businesses, affordable housing and good transportation for workers are mandatory.

Public/private partnerships can be useful for some projects to leverage the strengths and resources of the public and private sectors. Partnerships can help with joint use projects involving schools, parks, libraries, community centers and health facilities. In Chino, for example, we are working on a new school that will have a joint use gymnasium and park shared by the city and the school district. We will also have a joint use library shared by the County of San Bernardino and the local school district. The school will also have space for community meetings. In Riverside County we are exploring extra rooms for early childhood education and for limited health services, as well as many other joint use facilities. There currently is a growing awareness of the benefits of child care and early childhood education. In this era of scarce resources, joint use may be an exciting way to provide this much-needed service.

What about the other 98% of land? We must also look at the properties outside of the 2% areas to make sure they are being developed properly. We can't look back and say, "Why did we waste our land in 2006." We need to recognize appropriate land uses outside of the 2% Strategy areas and be wise about them. In ten years, today's Greenfields may all be infill locations and we must have proper zoning today to insure proper uses on the other 98% of land. A real side benefit of the 2% Strategy is that it can open the door to smarter thinking on the other 98% of the property. If the other 98% is planned properly, we can insure that sites can be developed appropriately and those sites which should not be housing can be put to other uses.

Health concerns affect all Southern Californians. There is a growing recognition that how we design communities can impact the health and vitality of an area's residents. By considering design and inclusion of health-promoting infrastructure, we can help our residents lead healthier and longer lives and lower the crushing burden of health-related costs on our society. There are four factors to be considered in designing healthier neighborhoods and developments:

A. The physical plan must promote walkability and safety. Where possible, trails and parks have been proven to increase people's tendencies to walk and get exercise.

B. Physical elements such as exercise rooms, gymnasiums or community centers also have big impacts. With forethought, all projects—large and small—can incorporate some physical elements to promote health.

C. Partnerships with local organizations, both for-profit and not-for-profit, can be used to leverage resources of knowledge, manpower and buildings to create programs to promote all elements of health and wellness.

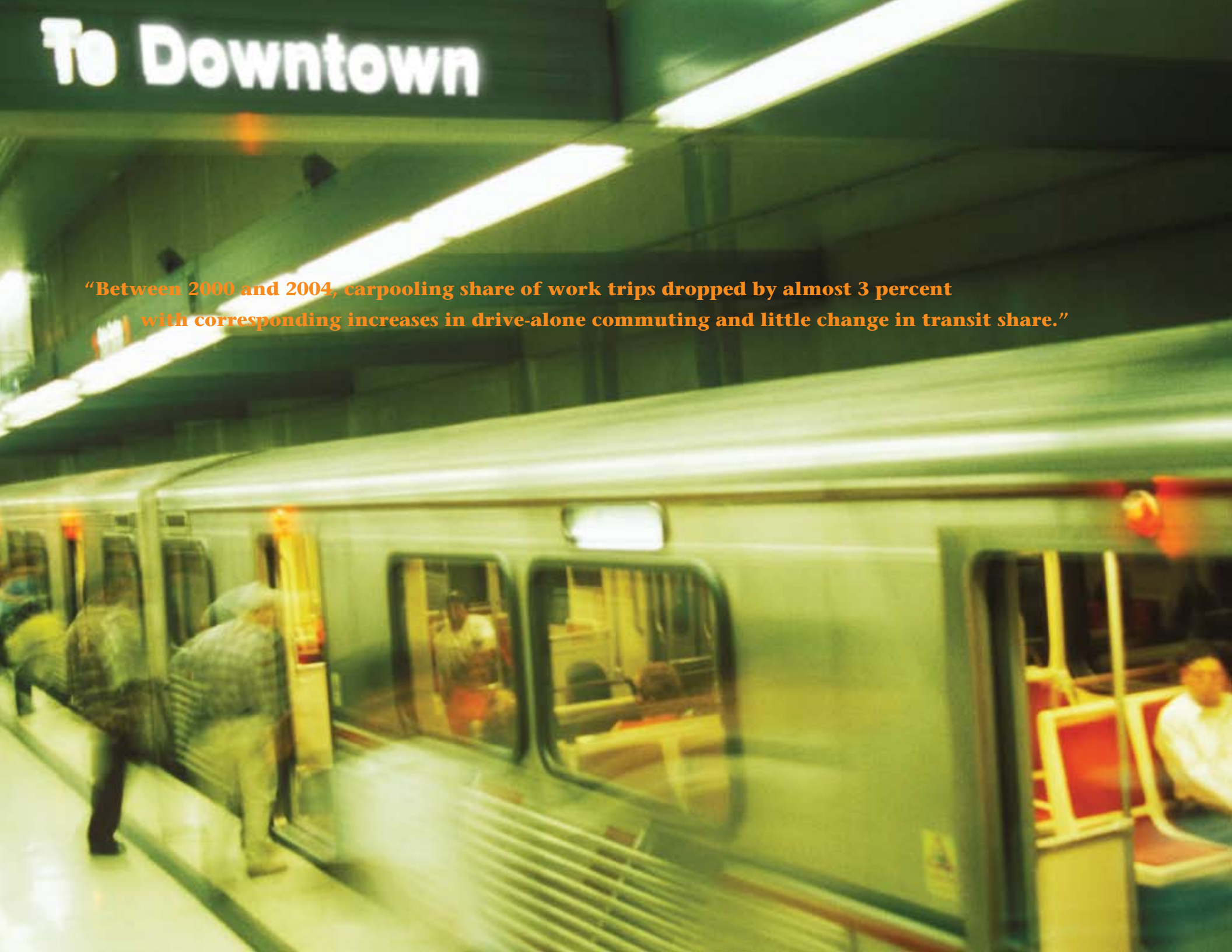
D. Policy changes need to be explored regarding elements such as food at schools, workplace health initiatives, allocation of budgetary resources and many others. It is at the policy level that the biggest opportunities for change exist.

Finally, demonstration projects are a great tool to encourage good development. These projects can demonstrate best practices in areas such as innovative approaches to high density, and new ways of creating learning communities, healthy communities and communities with a strong social fabric. New changes in technology such as fiber optics or wireless communication or environmental stewardship are other areas where demonstrations are valuable. These demonstration projects need to be fast-tracked through approval processes and, when built, need to be studied to learn what has worked and what hasn't. There is no substitute for being able to see projects in person and take advantage of what's been learned. Targeted demonstration projects have the power to influence dozens of other projects in a very short time.

Conclusion

All of us, the public sector, the private sector and our communities and citizens have a shared and common future. We also have shared values, wanting a better life for next generations. SCAG's leadership at the regional level is vitally important for Southern California. SCAG has tremendous resources that can guide community leaders with data, technology and methods for modeling different patterns of development. The staff members and elected leaders of SCAG are well respected and can be used as spokespeople and change agents to help the region through this process. Change is always difficult and scary but with SCAG's help, we can do what is necessary. The challenges ahead are enormous but with programs such as the 2% Strategy, I am confident that all of us can have better lives in the years ahead.

Randall Lewis is the Executive Vice President and Director of Marketing for Lewis Operating Corp.
He is a recipient of SCAG's 2005 Regional Champion Award.



"Between 2000 and 2004, carpooling share of work trips dropped by almost 3 percent with corresponding increases in drive-alone commuting and little change in transit share."

TRANSPORTATION

Highway Use and Congestion

Why is this important?

Highway congestion causes delays affecting personal mobility and goods movement and results in increased economic and social costs. In addition, congestion impacts the region's air quality. The number of vehicle miles traveled (VMT) indicates the overall level of highway and automobile usage, and is directly related to mobile source emissions.

How are we doing?

As a major gateway for international trade reliant on effective transportation, Southern California has been experiencing very high levels of congestion. Contributing factors include large population and physical extent of the region, rapid population growth, high automobile dependence, low levels of transit usage, and a maturing regional highway system with limited options for expansion.

Larger metropolitan regions generally have higher levels of congestion than smaller metropolitan regions. Specifically, among the metropolitan areas in the nation, the average number of hours of delay per resident is higher in larger metropolitan areas than in smaller metropolitan areas.[1] Population in the SCAG region has been growing faster than that in the nation for at least the last five decades.

The high automobile dependence in Southern California is reflected in its relatively high automobile ownership. Among the nine largest metropolitan regions, the SCAG region had the third highest household vehicle ownership (93 percent), the third highest number of vehicles per household (1.71) and the second highest number of vehicles per worker (1.35).[2] The region had, however, the third low-

est share (4.5 percent) of workers using transit to get to work, and the share of transit in all daily trips was only 2 percent.[3] *Among the nine largest metropolitan regions, Southern California had some of the highest dependence on automobiles despite of having the lowest median household income as well as per capita income*. With low transit usage and high dependence on cars, the region's relatively high residential density also contributes to high levels of congestion.

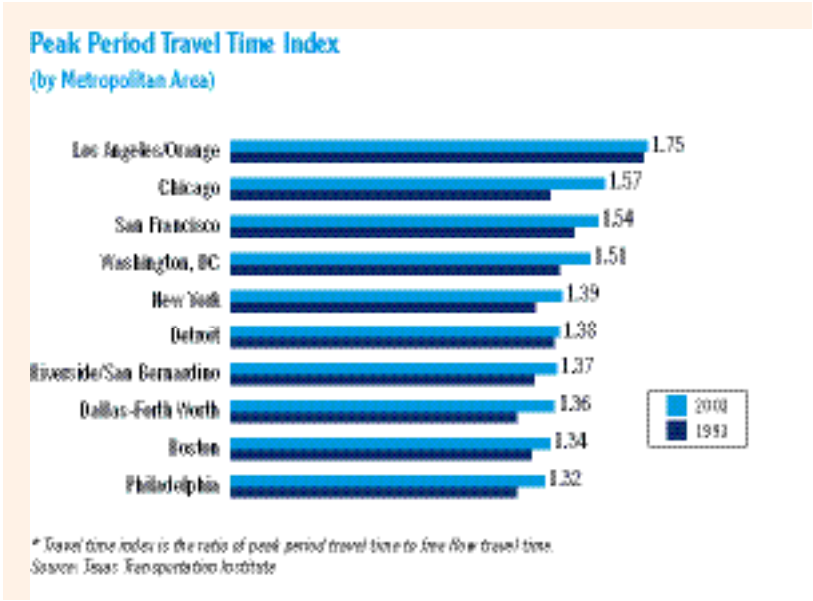
Currently, the region has about 14 million vehicles and close to 11 million licensed drivers. The region's highway system, including about 9,400 lane miles of freeway and more than 43,000 lane miles of arterials, is a maturing system with limited options for expansion. This is particularly true for southern Los Angeles County and northern Orange County. The region currently has the nation's most extensive High-Occupancy Vehicle Lane (HOV) system with more than 660 lane miles that accounted for more than 20 percent of HOV lane miles. Almost all daily trips (99 percent) rely on the freeway and arterial network in the region. About half of the daily VMT took place on the region's freeway system.[4] Peak period congestion on the arterial street system occurs generally in the vicinity of activity centers, at bottleneck intersections, and near many freeway interchanges.

In a recent survey conducted by UCLA, over 80 percent of the Southern California respondents indicated that they frequently experienced congestion.[5] Work trips, because the majority takes place during the peak period, naturally experienced a higher level of congestion than non-work-trips. However, congestion experienced during non-work trips is less predictable than during work trips.

Between 1993 and 2003, the SCAG region (particularly Los Angeles and Orange counties) consistently ranked as the most congested metropolitan region in the nation. Congestion level is measured by indicators such as travel time index or annual delay per traveler. For example, in 2003, a traveler in Los Angeles/Orange counties during the peak period spent 75 percent more time than if traveling at free-flow speed. At 1.75 in 2003, Los Angeles/Orange counties have the highest travel time index among the nation's major metropolitan areas (Figure 43). The Chicago region had the second highest at 1.57. Riverside/San Bernardino counties, with an index of 1.36 in 2003, ranked 7th highest. Nationally, congestion has grown in every metropolitan area regardless of size but has been most severe within the largest metropolitan areas.

Though Los Angeles/Orange counties had the nation's highest congestion level, their travel time index increased little between 1993 and 2003 while other metropolitan areas experienced much larger increases in congestion levels. During this period, the travel time index in Los Angeles/Orange counties rose very slightly from 1.73 to 1.75, while it increased from 1.34 to 1.57 in Chicago and from 1.44 to 1.54

Figure 43



in San Francisco. Significant investment in transit (e.g. the Red Line and light rails) and HOV system since 1990 contributed to the slower increase in congestion level in Los Angeles and Orange counties. The travel time index in Riverside/San Bernardino counties increased from 1.27 to 1.37 during the 10-year period.

In 2003, a traveler in Los Angeles/Orange counties during the peak period experienced a total of 93 hours of delay, the highest among major metropolitan areas (see Figure 79). A traveler in Riverside/San Bernardino counties experienced a total of 55 hours of delay, the 9th highest. Close to half of the delay resulted from accidents.

Among the nine largest metropolitan regions, the SCAG region (particularly the southern Los Angeles and northern Orange counties) had the highest percentage (88%) of peak VMT under congested travel. Total cost incurred due to congestion was almost $12 billion in 2003, significantly higher than any other metropolitan region (see Figure 80).

In 2004, total daily vehicle miles traveled (VMT) in the region reached about 422 million, which was about 2 percent higher than in 2003.[6] Within the region VMT increased more significantly in the Inland Empire (3.5 percent) due to higher population growth compared to the 1 percent increase in the costal counties (Los Angeles, Orange, and Ventura).

Highway Fatalities

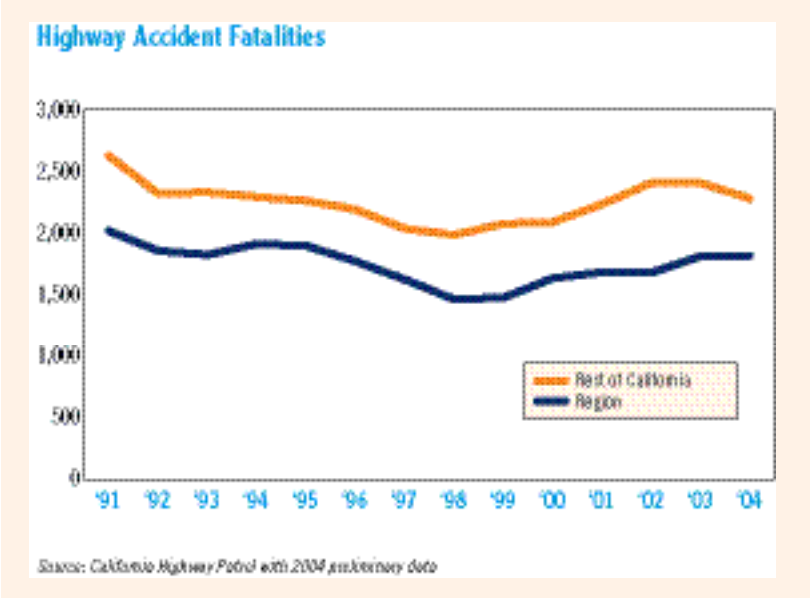
Why is it important?

Transportation accidents are the ninth leading cause of death in the United States. *Highway accident fatalities, about 42,600 deaths in 2004, account for about 95 percent of transportation-related deaths. Highway accidents are the leading cause of death for people between the ages of 4 and 33.*[7] Highway accidents also accounted for close to half of the total annual delay of the region's highway system.

How are we doing?

In 2004, motor vehicle crashes in the region resulted in 1,822 fatalities (almost 5 deaths per day), the highest since 1995 (Figure 44). *This was a very slight increase (0.4 percent) from the 1,815 fatalities in 2003 after an 8 percent increase during the previous period.* However, for the rest of California, total number of highway fatalities between 2003 and 2004 decreased by more than 5 percent. At the national level, total number of highway fatalities decreased slightly from 42,884 deaths in 2003 to 42,636 deaths in 2004, about a 0.6-percent decline, after the 0.3 per-

Figure 44



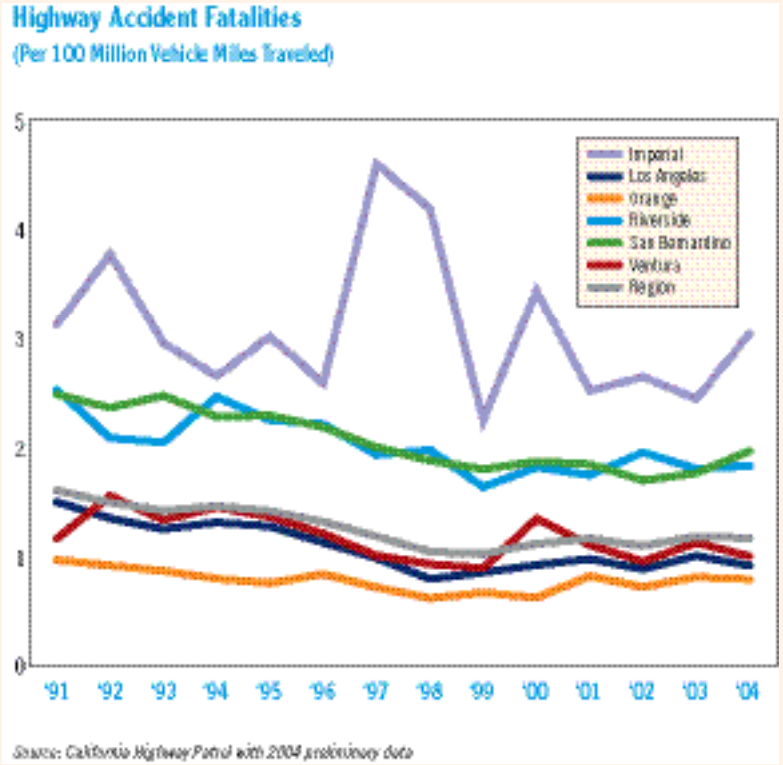
cent reduction in the previous period.[8] This is the second consecutive year in which highway fatalities declined at the national level

Since the passage of a state law in 1992 requiring seat belt use, the number of highway fatalities in the region had been generally declining until 1998, achieving a 27 percent reduction (or almost 400 fewer deaths) during the period. However, since 1998 the number of fatalities in the region has seen an upward trend. California continues to have a higher percentage of passenger vehicle occupants using seat belts than the nation, 91 percent vs. 79 percent. In addition, about 58 percent of the fatally injured occupants in California used seat belts compared to only 43 percent at the national level.[9] According to statewide data, about 40 percent of the fatal collisions were caused by drunk driving or involving alcohol. Nationally, the percent of alcohol-related fatalities has declined from 60 percent to 40 percent since 1982.

Young drivers who are between 16 and 24 years old have consistently had the highest fatality rate among different age groups, more than double the fatality rate of the general population. Older drivers who are 74 years or older have the second highest fatality rate among different age groups, about 50 percent higher than that of the general population. Also, as to the pedestrian fatality, California had the 8th highest rate (1.98 deaths per 100,000 population) among all states in 2003. This is about 20 percent higher than the national average at 1.63.

With respect to highway fatality rates, the six counties in the region were in three distinct groups (Figure 45). Imperial County has consistently had the highest highway fatality rates partly due to its also having the fastest average speed. The Inland Empire (Riverside and San Bernardino) counties shared similar fatality rates, though lower than Imperial County's. Finally, the three coastal counties (Los Angeles, Ventura and Orange) also share similar fatality rates. Partly

Figure 45



due to congestion and lower average speed, theirs were lower than the fatality rate of the Inland Empire.

Between 2003 and 2004, highway fatality rates increased in Imperial and San Bernardino while decreasing in Ventura and Los Angeles counties. The highway fatality rates in Riverside and Orange Counties remained almost unchanged. *In 2004, the region's highway accident fatality rate at 1.18 persons per 100 million vehicle miles traveled was significantly higher than the national average (0.94 persons per 100 million vehicle miles traveled) for urban areas.*[10] *The highway fatality rate in the region in 2004, though about the same as in 2003, continued to be the highest since reaching its lowest level in 1998. However, at the national level, the fatality rate in 2004 was the lowest recorded since three decades ago.*

Transit Use and Performance

Why is this important?

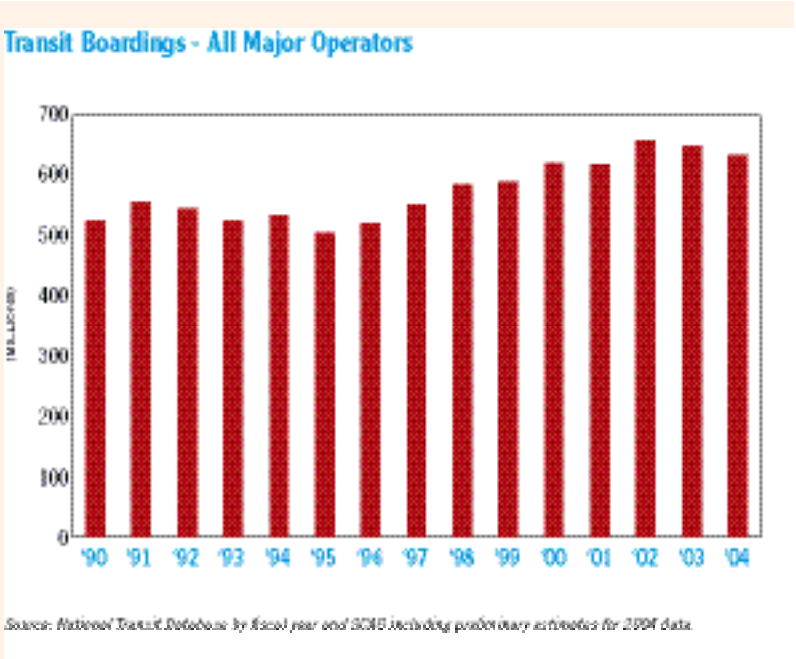
Use of public transit helps to improve congestion and air quality and decrease energy consumption. Reliable and safe transit services are essential for many residents to participate in economic, social and cultural life in Southern California. Annual transit boardings measures transit use at the system level, while transit trips per capita provides a measure of transit use at the individual level.

How are we doing?

Total transit boardings in the region in FY 2004 (from July 2003 to June 2004) declined by about 2 percent, from 649 million to 633 million, due to the labor strike of the MTA transit system (Figure 46). *The MTA system generally accounts for more than 60 percent of the regional total in transit boardings. During FY 2005, the MTA system recovered more than its loss in FY 2004 and the regional total of transit boardings should also exceed its FY 2003 level.*

During October and November 2003, the MTA transit system was shut down for 34 days due to a labor strike. Total annual boardings in the MTA transit system dropped significantly from about 419 million in FY 2003 to 382 million in FY 2004, a 37 million (9 percent) decline.

Figure 46



Source: National Transit Database by fiscal year and SCRIP including preliminary estimates for 2004 data.

The non-MTA portion of the transit system actually experienced an increase of 21 million (9 percent) between FY 2003 and FY 2004. In addition, if excluding the strike period, average weekday boardings for the MTA transit system increased slightly from 1.29 million to 1.3 million due to the start of service from the Gold Line with average weekday boardings of 15,000. More importantly, during FY 2005 the MTA transit system achieved an increase of 57 million (15 percent) to reach total boardings of 439 million, more than recovering the loss in the previous period.

Transit ridership is impacted by factors both external and internal to the transit system. External factors include residential and employment density, private automobile ownership rate, availability and price of parking, land use mix and urban design, and public finance. Internal factors are related to service quantity (e.g. frequency), service quality (e.g. reliability and convenience) and cost of transit service relative to other available modes.

Transit use accounted for about 2 percent of all trips in the region. Major barriers to further transit system development and higher transit use include an auto-oriented urban structure, inadequate level of service and a lack of geographic coverage (or insufficient destinations).[11] On an average weekday, about 30 percent of all transit trips were home-work trips, 47 percent home-other trips and 11 percent home-shopping trips.[12] Among transit users, only a fifth are regular users who make seven or more transit trips per week. However, they make up nearly half of all transit trips. In addition, lower-income residents generally have higher rate of transit uses than higher-income residents. The rate for Hispanics using transit is four times higher than that for non-Hispanic Whites.[13]

Transit trips per capita declined slightly from 37 in FY 2003 to 35 in FY 2004, which was below the 1990 level of 36. The region's transit system is experiencing substantial overcrowding on a number of core urban bus routes while it has significant excess capacity on most off-peak and peripheral routes.[14] Transit service utilization as measured by seat miles available is generally less than 35 percent, except for light rail with close to 60 percent utilization.

To promote transit ridership, it is important to promote transit-supportive land use strategies. These include more transit-oriented development, exploring strategies to improve travel time and intercounty transit services, and pursuing innovative funding, among others.

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 on the regional transportation system. Work trips tend to take 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?

Between 2003 and 2004, average travel time to work increased very slightly (0.7 minutes) to 28.8 minutes in the region.

This continued to be higher than the state (27 minutes) and national (25 minutes) averages.[15] In 2004, workers in Riverside County continued to have the highest average travel time to work in the region, 31 minutes. However, workers in Orange County experienced the largest annual increase from 25.6 to 27 minutes between 2003 and 2004.

Journey to Work: Mode Choices

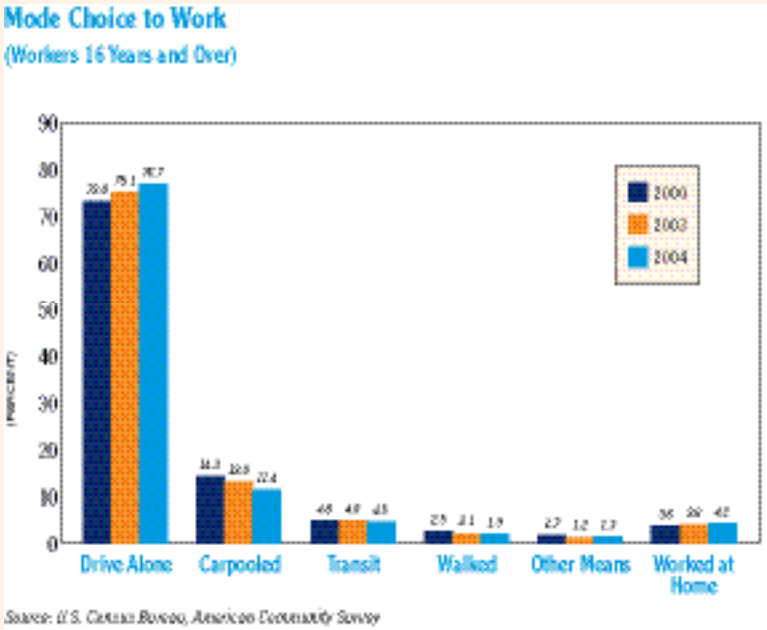
Why is this important?

Single-occupant vehicle use accounts for the highest level of land consumption among all transportation modes. It also generates the highest level of environmental, economic 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?

From 2000 to 2004, there was a decrease in the region's carpooling share of work trips from 14.3 percent to 11.4 percent, and increases in the share of drive-alone commuting, from 73 percent to 76.7 percent (Figure 47). This was similar to the trend at the national level though the magnitude of decline in carpooling share was much larger in the SCAG region. In 2000, among the nine largest metropolitan regions, the region had the highest rate (14.3 percent) of workers who carpooled to work and the third lowest rate (4.8 percent) for using transit to get to work. Among those who carpooled, most (close to 80 percent) were in a 2-person carpool, and the remaining 20 percent were in 3-or-more-person carpools.[16] In 2004, the region's share of workers using public transit for commuting was 4.5 percent, little changed from the previous year.

Figure 47



Within the region, San Bernardino County experienced the largest decline in carpooling rates, dropping from 16.5 percent to 12.1 percent between 2003 and 2004. Carpooling share in Riverside County, though declined from 15.6 percent to 14.1 percent during the same period, was the highest in the region. The average vehicle occupancy for work trips in the region was about 1.1 persons per vehicle.

In 2004, about 4.2 percent of workers in the region worked at home instead of commuting to a workplace, an increase from 3.4 percent 2 years ago. About half of these were self-employed and worked exclusively at home. On average, workers who worked at home were older than those working outside the home. In addition, about one-third were in professional and service industries.

Airports

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 with domestic and foreign markets. For example, airborne exports accounted for over 50 percent of the total value of commodity exports out of the Los Angeles Customs District (LACD) in 2004.[17] Adequate aviation capacity and quality services are essential to the tourism, business, and trade sectors of the regional economy.

How are we doing?

In 2004, with the recovery of the travel and tourism industry, total air passengers in the region experienced a significant increase of 7.2 million (9.1 percent) reaching 86 million (Figure 48). This represented a significant rebound after the record losses of 10 million air passengers between 2000 and 2003. Nevertheless, total air passengers in 2004 were still below the 2000 (pre-September 11) level of 89 million. Among the 86 million passengers, about 69.5 million (or 79 percent) were domestic while 16.5 million (or 21 percent) were international.

Among the airports in the region, Los Angeles International (LAX) achieved the most important turnaround (Figure 49). After losing 13 million air passengers between 2000 and 2003, LAX experienced a 5.7 million increase to reach close to 61 million in 2004. In addition, John Wayne Airport increased by more than 0.8 million to reach 9.3 million.

Figure 48

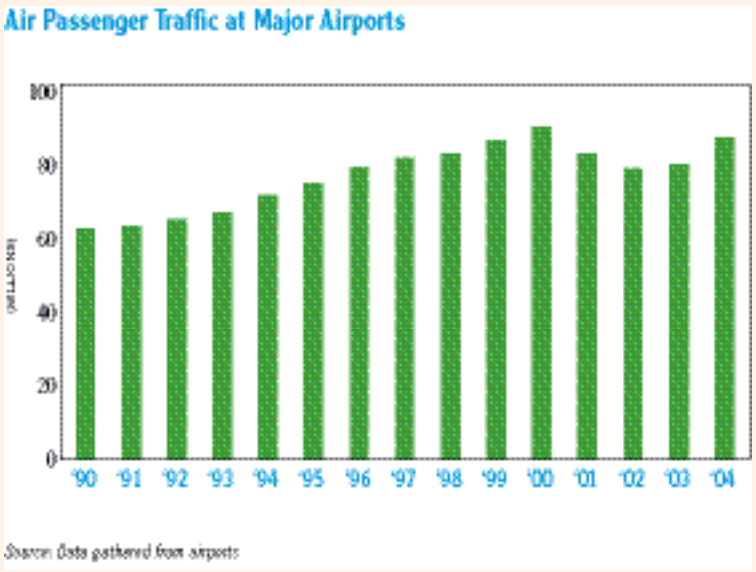


Figure 49

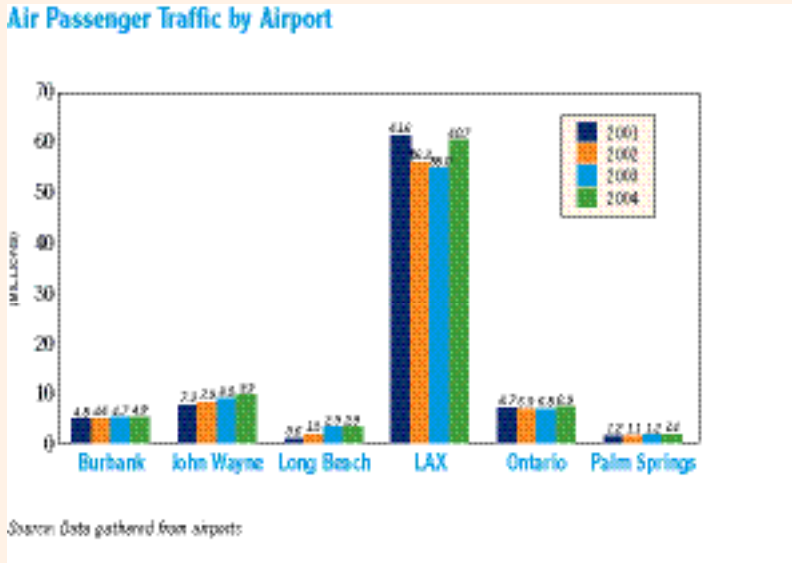
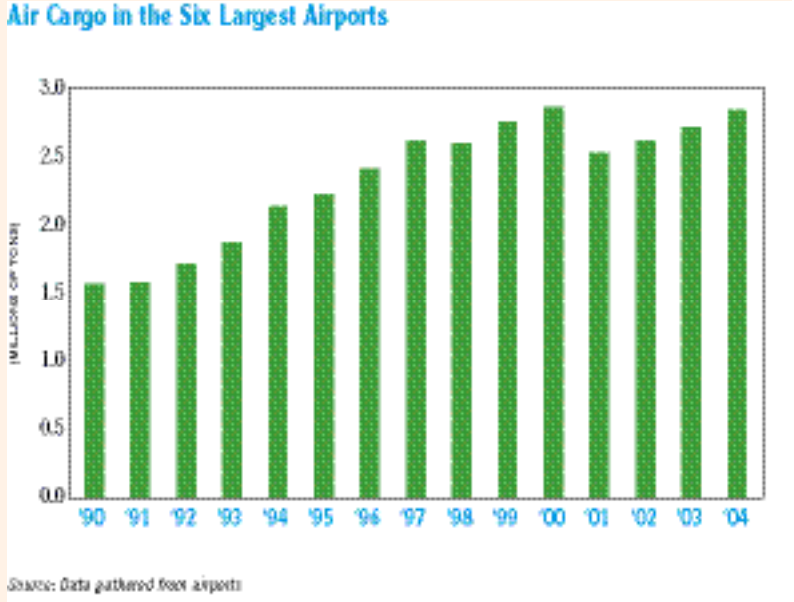


Figure 50



Total air cargo in the region increased by 4.8 percent and reached over 2.8 million tons in 2004, just below the pre 9/11 level. This was a little more than the 3.5 percent increase during the previous year but was still below the 5.4 percent average annual growth rate between 1970 and 2000 (Figure 50). Close to three-quarters of the region's air cargo traffic went through LAX while another 21 percent went through Ontario Airport. By 2030, total air cargo in the region is projected to reach 8.7 million tons, more than triple its 2004 level.[18]

LAX is a major U.S. hub for trade with Pacific-rim countries among which South Korea, Japan and Taiwan accounted for nearly 50 percent of the total tonnage transported. Some of the major commodities exported through LAX are vegetables and fruits, clothing, computer equipment and medical instruments, while the leading imports are

apparel, computer equipment, audio and video media, and office machinery. LAX is one of the only three major freight gateways in the nation that handles more exports than imports in value terms.

In 2004, among the ten largest airports in the world, LAX ranked 5th in passenger traffic behind Atlanta, Chicago, London and Tokyo (see Figure 81). As to the growth rate in 2004, LAX ranked third with 10 percent following Denver (13 percent) and Dallas-Forth (12 percent).

LAX also ranked 6th in total cargo volumes following Memphis, Hong Kong, Tokyo, Anchorage and Seoul (see Figure 82). Among the ten largest airports, LAX had the lowest growth rate (4.3 percent) in 2004 while Hong Kong (17 percent) had the highest followed by Seoul (16 percent).

Ports

Why is this important?

Almost 85 percent of the imports coming through the Los Angeles Customs District (LACD) arrive at the region's ports.[19] Continuing to provide a world-class port infrastructure is critical to sustaining a growing and prosperous regional economy.

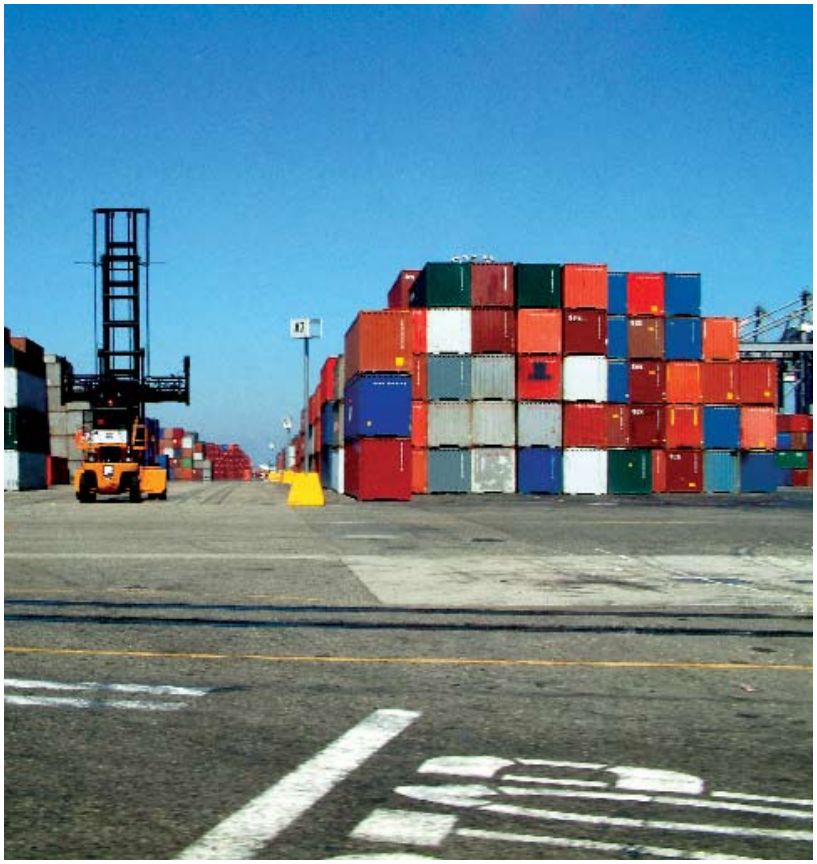
How are we doing?

Total traffic at the Ports of Los Angeles and Long Beach increased from 164 million tons in 2003 to 178 million tons in 2004, an 8.3 percent increase (Figure 51). Between 2003 and 2004, traffic at Port Hueneme increased by 18 percent, from 3.4 to 4 million tons. Only about 6 percent of the cargo shipments at Port Hueneme were through containers.

In 2004, the Los Angeles/Long Beach port complex ranked fifth in the world in container traffic (13.1 million TEUs – twenty-foot equivalent units) following Hong Kong (22 million), Singapore (20.6 million), Shanghai (14.6 million) and Shenzen, China (13.6 million).[20] By 2020, total container traffic at the twin-ports is projected to almost triple their 2004 level, reaching 36 million TEUs.[21]

Figure 51

The twin-ports accounted for about 27 percent of the value of total U.S. international waterborne trade.[22] They are major gateways for imports with inbound shipments accounting for more than 80 percent of the value of freight it handled. In 2004, the twin-ports also maintained their dominant role among West Coast ports, attracting almost 57 percent of the total traffic. The continuing dominance of Ports of Los Angeles and Long Beach is partly due to their large regional market as



well as better rail service to the Midwest and Southeast from Southern California than from other Pacific coast locations.

In 2004, about 5,000 vessels called at the Ports of Los Angeles and Long Beach. Container vessels were the most frequent type to call at the twin-ports. In July 2004, Orient Overseas Container Line's OOCL Ningbo – an 8,000-TEU vessel and one of the world's two largest containerships – docked at the Port of Long Beach. China was the twin-ports' leading country of origin for imports by weight of shipment.

ESSAY

GOODS MOVEMENT IN SOUTHERN CALIFORNIA: CHALLENGE, OPPORTUNITY, SOLUTION

Summarized by John Husing, Ph.D.

Southern California faces an extraordinary economic opportunity and a frustrating policy dilemma. The rise of Asian trade through Los Angeles and Long Beach harbors to the nation has given the area its first true competitive advantage for creating good-paying blue collar jobs since the rise of aerospace after World War II. A 1,000,000-job economic strategy aimed at providing entry into the middle class for some of the 44% of local adults with no college experience is now possible. But with San Pedro Bay ports handling 43% of the containers entering the U.S., the region's communities find themselves drowning in a sea of trucks and trains and choking on their exhaust. Can we identify and implement the infrastructure projects, environmental policies and funding mechanisms to harness this opportunity or must California lose a chance to raise the prosperity of thousands of its families and improve public health? That is the dilemma facing today's generation of analysts, activists and leaders.

The Opportunity

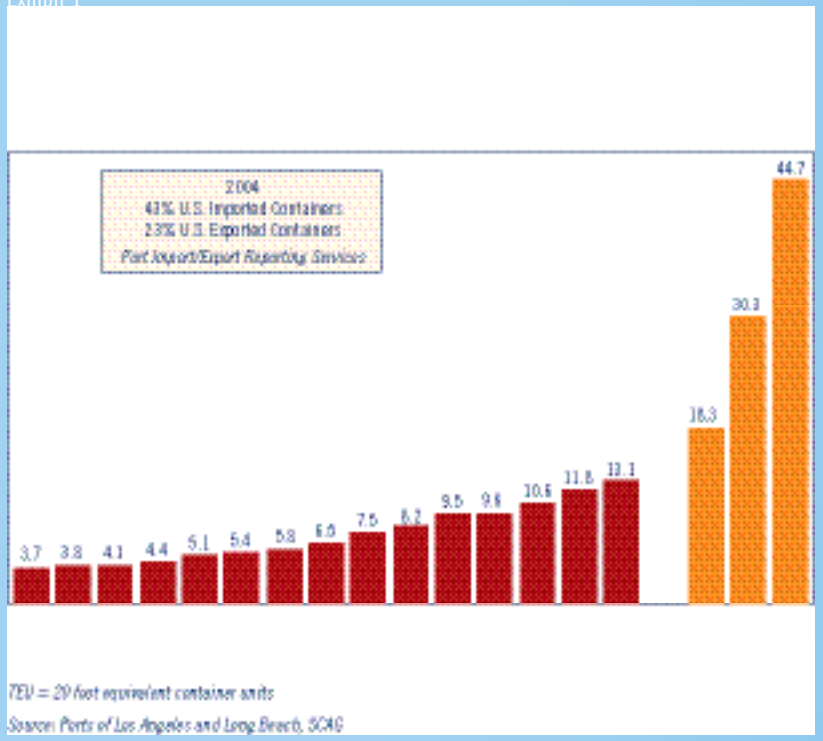
Southern California's new competitive advantage starts with the fact that countless manufacturers now find that Asia's labor costs are a fraction of those in the U.S. Price competition among retailers like Wal-Mart, Costco and Home Depot has forced them to increasingly rely on Asian producers to stock their shelves. In Southern California, this has caused soaring container volume at Los Angeles and Long Beach harbors. In 2000, 9.5 million total TEU's *(20-foot equivalent container units)* were processed *(imports, exports, empties)*. In 2004, it was 13.1 million, up 37.9% (Exhibit 1). By 2030, the ports forecast that volume could reach 44.7 million, triple today's figure.

Meanwhile, the 2004 total volume figure included 6.8 million TEU's of the 15.8 million imported containers entering the U.S., a 43.0% share. It also included 1.8 million exported containers or 22.9% of the nation's total. On the import side, several relatively obvious factors have created competitive advantages for retailers to move goods through Southern California *(Imperial, Kern, Los Angeles, Orange, Riverside, San Bernardino, San Diego, Ventura counties):*

- Its ports are on the West Coast nearer to Asia.
- Its January 2005 population of 21.9 million constitutes a huge internal market.

- Its huge port operations handle triple the volume of Oakland-SF, Seattle-Tacoma, Portland & Vancouver combined *(5.1 million TEU's)*. A Mexican port is still theoretical.
- As giant post-Panamax ships *(8,200-TEU ships & up)* come on-line, Oakland cannot accommodate them as San Francisco Bay is too shallow.
- The landside rail and freeway connections to U.S. markets from Seattle-Tacoma and Vancouver are limited compared to Southern California as is their intermodal capability and access to goods transloading, consolidation and storage facilities.
- Ocean carriers like to drop cargo going to Southern California's huge internal market and off-load containers headed throughout the U.S. before they visit other West Coast ports.

Exhibit 1



Less obvious is why large high value retailers with multiple U.S. markets prefer to ship to Southern California's ports and use local warehouses to consolidate and transload goods on to relatively expensive trucks or trains for nationwide delivery. Their option: Use inexpensive ships to take their goods to multiple U.S. ports nearer those hubs. While the alternative would save on transportation costs, the Leachman *Port & Modal Elasticity Study* commissioned by SCAG[1] showed that retailers save 18% to 20% by operating from the Southland for 3 reasons:

- For national retailers, the wider the gap between when sales forecasts are made at their hubs and the arrival of goods, the *larger* the inventories they must order to cover forecasting errors. If they ship directly to each hub via multiple ports, inventory decisions must be made while the goods are in Asia, *4-7 weeks* before delivery. If they ship to Southern California and manage their inventories from here, those decisions are made *1-2 weeks* before delivery, cutting the risk of error and reducing the size and cost of inventories.
- If a national retailer sends goods directly to multiple hubs from Asia and a container misses a ship, one destination hub will get no goods while the retailer's other hubs will be fully stocked. By shipping to

[1] *Port & Modal Elasticity Study*, Dr. Rob Leachman, Leachman & Associates LLC, September 2005.

Southern California and using local consolidation facilities, the firm can elect to reduce each hub's supplies by the amount of any missing cargo. This spreads the risk and reduces the "safety" inventory that it must buy.

• High value retailers are the most likely to ship to Southern California and create jobs by managing their inventories via local transloading, warehousing and consolidation because inventory costs are magnified for expensive goods. It thus costs more for these retailers to buy extra inventory to both guard against sales forecasting errors if they ship directly from Asia and guard against supply chain disruptions.

Speed and reliability are crucial to Southern California's competitive edge. This was nearly lost in 2004 when 93 ships were tied up in San Pedro Bay because the ports could not unload them or efficiently move freight out their gates. It happened in 1996, when Union Pacific's purchase of Southern Pacific slowed freight movements, and again in 2005 when heavy rains and landslides disrupted rail traffic. Freeway congestion is an issue, slowing interstate trucks that go from the ports through Cajon (I-15) and San Gorgonio (I-10) passes. Meanwhile, growing neighborhood opposition to port, rail and freeway expansion due to diesel fumes, noise and lack of grade separations threatens to prevent needed infrastructure expansion to combat these delays. As a result, some retailers have built facilities elsewhere to guard against this region's emerging difficulties.

The Potential Benefits

If Southern California can maintain its competitive advantage for handling the growing volume of goods movement and solve the issues of congestion, diesel emissions and community impacts, significant benefits will flow to its labor force as well as the firms involved in goods movement and the people living near transportation facilities.

Labor Force Benefits

The SCAG funded Husing labor force study[2] showed that in 2003 some 44.6% of Southern California's adults had stopped their formal educations with a high school diploma or less *(Exhibit 2)*. It was half or nearly half the population of Kern, San Bernardino, Riverside and Los Angeles counties.[3] It was over one-third of the population in San Diego, Orange and Ventura counties. Historically, manufacturing allowed this population to achieve upward economic mobility via high entry-level pay and on-the-job learning. However, the sector lost 324,800 jobs in California from 2000-2004 *(17.5%)* mostly due to rising Asian competition.

Today, the logistics industry offers the possibility of replacing manufacturing as a source of rising incomes for workers with these educational levels. These sectors are involved in receiving, processing, storing and moving goods. In 2003, this included 38,706 firms with 548,278 workers *(Exhibit 3)*. Importantly, the median and average pay levels in logistics are a little over $2,000 above manufacturing and $4,000 above construction, the other major blue collar sectors.

Exhibit 2

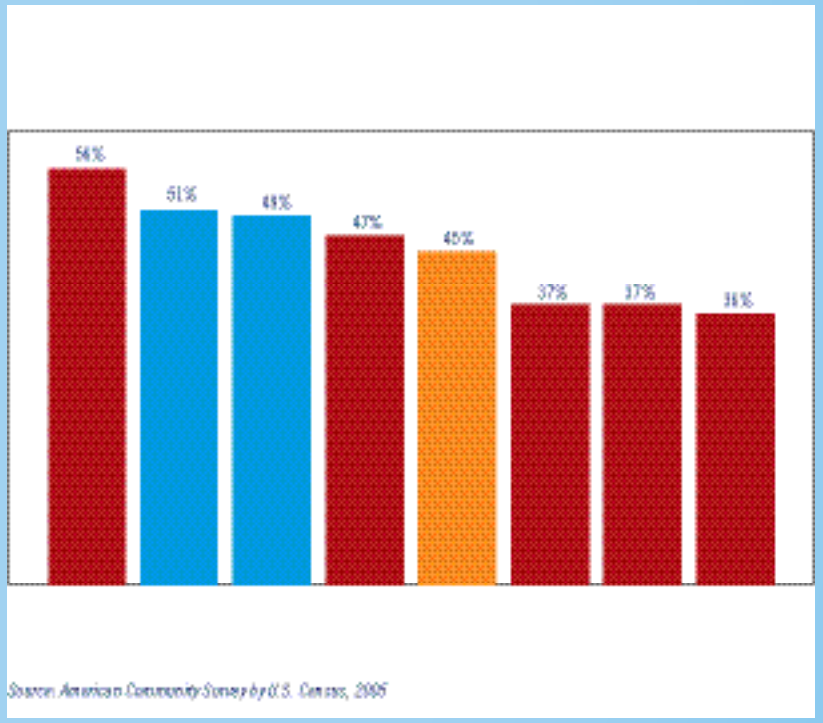
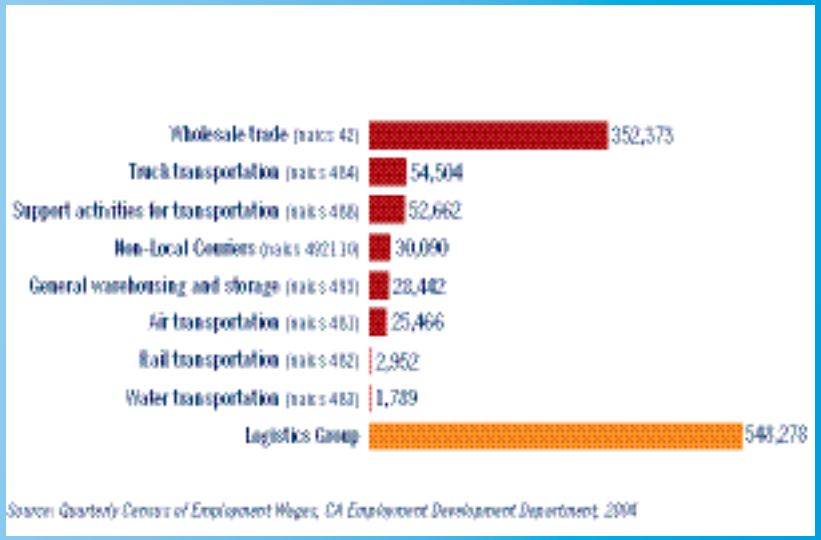


Exhibit 3



[2]*Logistics and Distribution: An Answer to Upward Social Mobility*, Dr. John Husing, Economics & Politics, Inc. June 2004 *http://www.scag.ca.gov/goodsmove/pdf/HusingLogisticsReport.pdf*
[3]Imperial County data unavailable for 2003. The figure was 62.9% in 2000.

Research by SCAG's staff found that by building the infrastructure to accommodate the growth of trade and cleaning up its worst environmental side-effects, 1,381,000 Southern California jobs can be created. Of these, 325,000 would be in logistics as the sector follows its normal growth path, plus another 95,000 due to the transportation system's added efficiency. Building and maintaining the new infrastructure would add 277,000 construction jobs, while phase 1 of the Maglev system from LAX to Ontario International Airport would add another 91,000. Expanded transportation efficiency would cause the general economy to expand, adding 83,000 jobs. The multiplier impacts of all this investment spending would provide the other 510,000 *(Exhibit 4)*.

Exhibit 4

Activity	Job Creation
Logistics Natural Growth	325,000
Logistics: Additional Growth Due To System Efficiency	95,000
Rail Capacity, Grade Separation, Truckway	277,000
Rest of Economy Growth: System Efficiency	83,000
Maglev LAX-ONT	91,000
Multiplier Impacts	510,000
TOTAL	1,381,000

Transportation Sector Benefits

The infrastructure to allow the expansion of Southern California's logistics sector will *not* be built unless the region's goods movement companies find it will increase the speed and reliability of their operations in substantial and measurable ways. That is the message that emerged from extensive roundtable discussions between the shippers and the agencies concerned with improving the system.[4]

To calculate this, SCAG's staff created metrics to measure potential improvements via a *Speed & Reliability Study*. It assumed a conservative $73 per hour cost for moving cargo by freeway and modeled anticipated delays from congestion and accidents at various times of the day. The study found that if dedicated truckways and expanded railroad infrastructure were built, and tolls and fees later charged to use them, shipping would cost less than without such a system. These results are being presented to industry for peer review. One example, in moving containers to Ontario from the ports:

- Shippers would have a time-cost savings of $76 per load without allowing for unexpected congestion delays.
- Shippers would have a time-cost savings of $233 per load if they do allow for unexpected congestion delays.

Environmental Benefits

In California, it is axiomatic that major infrastructure projects will not be built unless the environmental community is satisfied that they will, at worst, do no harm, and at best, decrease health risks. For the logistics infrastructure needed to energize Southern California's blue collar job

[4]Roundtable meetings were convened by SCAG in February, May, and August 2005.

growth, the key will be the strategy's ability to seriously reduce NOx *(nitrogen oxides)* and fine particulate matter from diesel fumes at the ports and intermodal yards as well as along freeways and rail lines. Also, rail grade separations will be necessary so trains do not divide cities, slow emergency vehicles, tie up traffic and increase noise pollution.

One strategy is to speed up investment in Tier III lower diesel-emitting railroad engines and similar engines for trucks, to reduce port and intermodal railyard emissions. Also, the oldest and dirtiest trucks could be bought and retired, and newer trucks retrofitted. In harbor areas, several strategies could reduce emissions from ships burning low-grade bunker fuel. "Cold ironing" could be applied at the docks so ships are powered off the electrical grid not their diesel engines. Ships entering port areas could be required to move at slower speeds to burn less fuel. The U.S. Senate could ratify the MARPOL Annex VI *(marine pollution treaty)* and support formation of a North American Sulfur Emission Control Area requiring ships entering the ports to use lower-sulfur fuel.

To reduce freeway congestion and emissions, PierPASS has instituted its OffPeak program with an $80 container fee waived for trucks moving in evening and weekend hours. Some 30% are doing so, reducing the big rig impact on peak-time congestion and idling. To help this effort, an Inland Empire truck port is under discussion. At it, loads would be left at night and distributed the next day. Also being implemented is *computerized matching* of in and outbound container loads to stop empties from returning to the ports after an import delivery, only to return as empties to the same area for an export load. And, the Alameda Corridor Transportation Authority is studying the economics of using short haul rail for some of the 1.24 million containers going to the Inland Empire each year.[5] Local trucks will haul them to warehouses from an inland rail port. Meanwhile, given rail's key roles to any emissions solution, the Alameda Corridor East projects are essential to eliminate the many at-grade rail crossings from the Alameda Corridor's terminus to the deserts.

The Solution

Fortunately, a path to solving the issues described here is becoming evident.

Projects

It begins by detailing the projects needed if the transportation system is to have the efficiency and reliability that shippers need to continue expanding and creating local jobs. SCAG region stakeholders have helped develop an unprioritized *$26.2 billion* goods movement project list.[6] To develop further detail and priorities, the *Multi-County Goods Movement Action Plan* is underway. It is being funded by county transportation commissions, Caltrans and SCAG.

[5]Alameda Corridor Transportation Authority, *Consolidation Activity in Southern California Area,* BST Associates

Environmental

In addition, it is essential that the region set aside funds and develop the environmental strategy to accompany them. Cost estimates to mitigate the impacts of freight-related diesel usage on public health and the environment vary widely. No matter what, the region must come into attainment of health-based air quality standards and address other environmental impacts of goods movement. Investments in environmental mitigation strategies can and should be financed side by side with infrastructure investments.

Elasticity Study

As stated, the Leachman *Port & Modal Elasticity Study* showed that national retailers save 18%-20% on their inventory costs by shipping their high-value products to Southern California and using local warehouses to manage, consolidate and transload cargo before rail or truck delivery to various U.S. hubs. This process cuts weeks off the lag between hub level sales predictions and the arrival of the goods, lowering the inventories needed to cover forecasting errors. Centralized warehousing also reduces the inventory needed to cover the risk that some cargo deliveries will be interrupted along the supply chain.

Using data on the economics of shipping decisions provided by national retailers, the *Elasticity Study* also looked at the impact on container volumes at Southern California's ports if an expanded goods movement network was built and, *afterwards*, shippers amortized their investments through a schedule of fees and tolls to use the system and retire its construction debt. The conclusion was that under such an arrangement, the system's added speed and reliability would lure 12.5% more high-value cargo that creates jobs as it is handled by Southern California's logistics operations. It would also chase away low-value cargo that just passes through the region without creating jobs, freeing rail and freeway capacity for high-value shippers.

Return On Private Sector Investment

Combining the results of the *Speed & Reliability Study* to those of the *Elasticity Study* yields serious lessons for strategies to finance Southern California's logistics system. Earlier, it was indicated that the *Speed & Reliability Study* found significant cost savings to shippers of having access to a dedicated truckway. If a small portion of those[6]

[6] *Southern California Regional Strategy for Goods Movement: A Plan for Action,* February 2005, Table 2, SCAG, *http://www.scag.ca.gov/goodsmove/pdf/GoodsmovePaper0305.pdf.*

savings were paid as a toll to help retire the $16.5 billion debt from building the truckway, shippers would profit from the system. For example, towing a container via truckway from the ports to Ontario:

- Shippers would have a $76 time-cost saving with no allowance for unexpected delays. Using a truckway toll of 86¢ per mile, the trip cost would be $32. The truck tollway would cause bottom-line profits to increase by $44 per trip.
- Shippers would save $233 in time-cost saving when allowances for unexpected delays are included. At a truckway toll of 86¢ per mile, the trip cost would be $32. The truck tollway would cause bottom-line profits to increase $201 per trip.

The study found that the time-cost savings from expanding the region's rail system to be even more dramatic. Again, this research is being presented to the shipping industry for peer review.

Financial Feasibility

Southern California faces difficult infrastructure financing questions. Can it pay for the *$26.2 billion* in highway and rail improvements that will generate over 1 million logistics related jobs? Can it also finance the billions needed for environmental projects? After the system is finished, can it institute a fee schedule to repay the construction financing and stay within the limit where the *Elasticity Study* finds the maximum trade benefit?

In each case, the answer is YES. The funding strategies in Exhibit 5 row 5 use an 86¢ per mile truckway toll with a $160-$170 container fee. Together, they are generally below or about equal to the threshold from the *Elasticity Study* and raise the needed $36.2 billion.

Exhibit 5

Project	Capital Cost	Fee Structure	Fee Ranges and Assumptions
1 No Project	$0	None	None
2 Truckway Only	$16.5 Billion	Container Fees and Truckway Toll	$60 to $70 Container Fee 86¢ per Mile Truckway Toll *(Level debt @ 5%, 30-35 Years)*
3 Rail Improvements Only	$3.5 Billion	Container Fees	$15 to $20 Container Fee *(Low Fee: tax credit instrument)* *(High Fee: 5%, ascending debt; 20 Years)*
4 Total Highway and Rail Improvements Only	$26.2 Billion	Container Fees and Truckway Toll	$120 to $130 Container Fee 86¢ per Mile Truckway Toll *(Roads: level debt @ 5%, 30Yr, 35Yr, 40Yr)* *(Rail: tax credit and ascending debt for rail)*
5 Total Highway and Rail Improvements and $10 Billion Environmental Mitigation	$36.2 Billion	Container Fees and Truckway Toll	$160 to $170 Container Fee 86¢ per Mile Truckway Toll *(Highway/Environmental: Level debt @ 5%, 30Yr, 35Yr and 40Yr)* *(Rail: tax credit instrument and ascending debt)*

The Next Steps

Southern California has competitive advantages that will allow it to create over 1,000,000 in middle-class jobs related to the logistics sector if it undertakes the infrastructure and environmental projects necessary to allow those jobs to be created. The jobs are needed, given that 44.6% of the region's adults have no college experience. Shippers will find that their financial benefits from an expanded goods movement system's

increased speed and reliability will more than offset their costs to use it. The tolls and user fees needed to re-pay the strategy's $36.2 billion price tag will generally be below or at the $100 per TEU *(2005 prices)* that could hurt the region's trade. What remains? To undertake the measures to move this strategy forward:

- **Creation of a Southern California Institution to Execute Infrastructure Construction.** No existing institution, under its current authorities, can manage the building of the wide range of infrastructure and environmental projects needed to implement the logistics-based economic strategy region-wide. Such an institution must be able to prioritize projects, undertake bidding, establish budgets, raise and repay funds and manage construction in all counties. The creation of such a Southern California-based institution may require legislation.
- **Peer Review.** The research conducted on this issue needs to undergo peer review by the retailers, shipping companies and others with a financial stake in the system. If their analysts find that the system will serve their corporate interests, they will become the crucial link in convincing government entities to move forward with funding and implementation strategies. If they do not support it, the system will likely never be built.
- **Federal and State Legislation For Infrastructure Financing Tools.** In column 5 of Exhibit 5, there is a list of the credit instruments that could be used to lower the cost of funding the highway, rail and environmental measures needed for a logistics-based Southern California economic strategy. These include federal tax credit equity financing and state authorization of public/private infrastructure financing. To speed project processing and lower costs, state approval of design-build construction project processing is needed.
- **Private Sector Leadership.** Ultimately, the development of the wide-ranging political and economic agenda required to move the strategy forward will require the leadership of private sector individuals with a vision for Southern California's future. Their foresight and energy will be needed in encouraging federal, state, and local institutions and political leaders to make the decisions that can make a program of this importance a reality.
- **Environmental Cooperation.** To begin improving public health, the most cost-effective environmental improvement strategies need to be identified, prioritized, and funded promptly. Numerous local, state and federal environmental agencies have begun to realize the extraordinary challenges posed by the accelerating flow of international goods through Southern California and the lack of infrastructure, financing and environmental measures to handle it. They need to follow through on their expressed interest in cooperating on this issue. A memorandum of understanding that pledges cooperation and outlines how each can help bring an infrastructure and environmental strategy to fruition would be a helpful first step.
- **Establishment of Federal Infrastructure Financing Related to International Trade.** A crucial player in the long-term funding of the infrastructure and environmental projects needed for this Southern California economic strategy must be the federal government. Federal economic and trade policies are a major reason for the flood of goods now entering the U.S. Yet there is no federal financing structure tied to

the landside issues of the port, rail and truck infrastructure needed to handle the movement of this trade. Whether it is port-related container fees, the dedication of a portion of tariffs to the goods movement infrastructure or some other mechanism, the federal government needs to begin playing a significant role in infrastructure financing.

- **Political Leadership.** Southern California's state and federal delegations include several crucial committee chairpersons. They should be able to bring considerable influence to bear on acquiring financing, developing financial tools, and undertaking legislative initiatives that can move the strategy forward. Given the wide range of pressures on these officials, the region's private sector leaders and its agencies must ensure that its legislative delegations are aware of the issue, the emerging lines of strategies, and how they can use their influence to help craft solutions.

Summary

The goods movement issue presents Southern California with its greatest economic opportunity in decades to create upward economic mobility for its workforce. This report has outlined the challenges, explained the opportunities and underscored the potential benefits of a logistics-based economic and environmental strategy. It has also laid out a route to implementing such a strategy and ended by explaining the steps that now need to be taken to move ahead. In many respects, the future outlined by this research is ours to grasp or let slip away.

Dr. John Husing is the Vice President of Economics and Politics, Inc. This essay is a condensed version of a longer paper prepared by Dr. Husing for SCAG that could be accessed at http://scag.ca.gov/goodsmove/pdf/GoodsmovePaper0905.pdf.

"Available water from imported sources may be reduced in the future as other users and uses place greater demands on these sources."

Air Quality

Why is this important?

Good air quality is vital for the health of residents, nature and the economy. Human health effects of air pollution can range from lung irritation to cancer and premature death. Ecological effects include damage to crops and contamination of waters. Degradations in human and ecological health often adversely impact economic well-being.

How are we doing?

The SCAG region includes four air basins: South Coast, Mojave Desert, Salton Sea and South Central Coast (Ventura County portion) (see Map next page). The South Coast Air Basin includes an area of approximately 6,480 square miles with more than 15 million residents in 2004, about 85 percent of the region's total population. It includes all of Orange County and the non-desert areas of Los Angeles, Riverside and San Bernardino counties. The Salton Sea and the Mojave Desert air basins have a combined area of approximately 32,200 square miles. The two basins include the desert portions of Los Angeles, Riverside and San Bernardino counties as well as Imperial County. Ventura County is part of the South Central Coast Air Basin (SCCAB).

Air quality is a function of both the rate and location of pollutant emissions under the influence of meteorological conditions and topographic features.[1] Air masses can move from basin to basin. As a result, pollutants such as ozone and particulate matter can be transported across air basin boundaries.

The U.S. Environmental Protection Agency, shortly after its creation in 1970, developed regulations targeting six "criteria" pollutants


AIR BASINS
in the SCAG Region
MDAB
SCAB
SSAB
VC SCCAB
South Central Coast Air Basin
Ventura
Los Angeles
South Coast Air Basin
Orange
San Bernardino
Mojave Desert Air Basin
Riverside
Salton Sea Air Basin
Imperial
San Diego
Mexico
Arizona
Nevada
PACIFIC
OCEAN

that adversely affect human health and welfare: ozone, particulate matter, carbon monoxide, nitrogen dioxide, sulfur dioxide, and lead. Of these, the first three pollutants are regionally significant, with various parts of the SCAG region showing moderate to extreme levels of pollution except for carbon monoxide in the last couple years. Because of their significance, this report focuses on the first three pollutants.

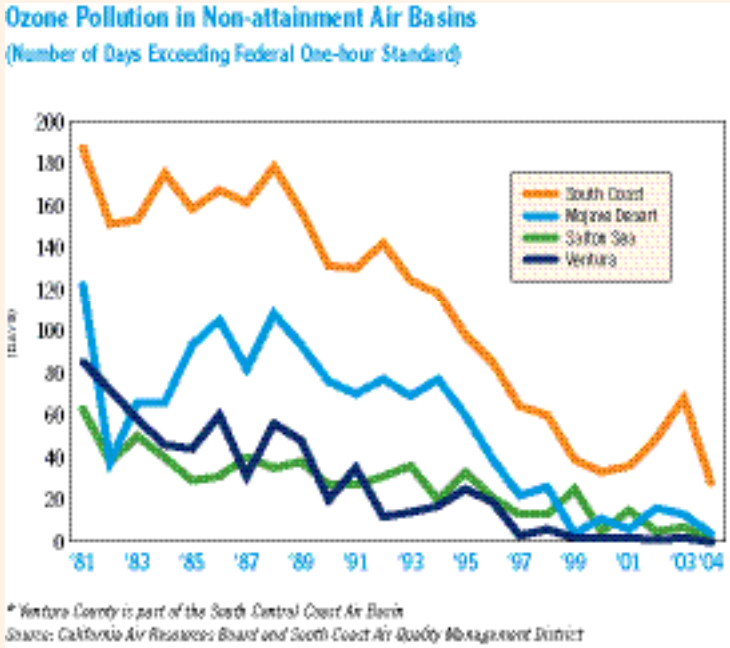
Air pollution consistently ranks high among public concerns in Southern California, and control efforts have been a high priority in recent decades. Despite significant improvements in the past two decades, the South Coast Air Basin still has some of the worst air quality in the nation in terms of the annual number of days exceeding federal standards.

Ozone

Currently, all four air basins in the region are designated as non-attainment areas for Ozone. Ozone is a colorless, poisonous gas. Ground level ozone is a major component of urban and regional smog. Ozone is a strong irritant, which can reduce lung function and aggravate asthma as well as lung disease. Repeated short-term ozone exposure may harm children's developing lungs and lead to reduced lung function in adulthood. In adults, ozone exposure may accelerate the natural decline in lung function as part of the normal aging process.[2]

In 2004, partly due to cooler weather and weak atmospheric inversions, ozone pollution improved in all four air basins in the region, particularly for the South Coast Air Basin (Figure 52). *In the most populous South Coast Air Basin, the number of days exceeding the federal one-hour ozone standard from 2003 to 2004 decreased from 68 days to 28 days, the lowest since 1976.* This followed the significant increases from 36 to 68 days between 2001 and 2003. The number of days for health advisories in the South Coast Air Basin also decreased from 36 to 4 days between 2003 and 2004.[3]

Figure: 52



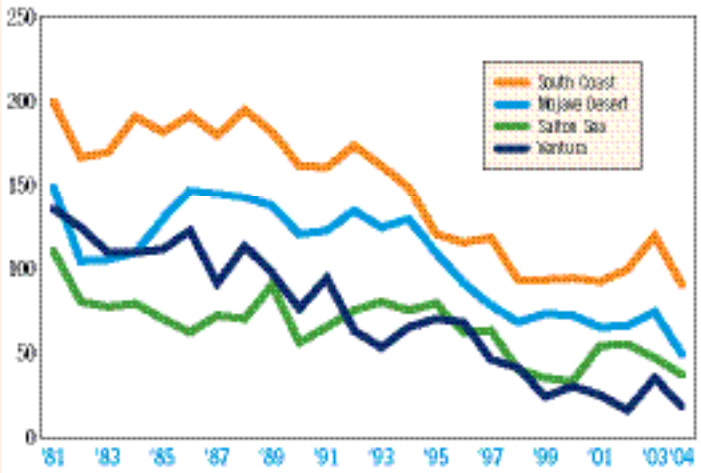
Within the region, the Santa Clarita Valley surpassed the federal one-hour ozone standard for a total of 13 days in 2004 followed by the East San Bernardino Valley with 12 days of exceedance.[4] The maximum 1-hour ozone concentration in the South Coast Air Basin also decreased from 0.194 ppm (parts per million parts of air) in 2003 to 0.163 ppm in 2004, also the lowest since 1976.[5]

Ozone is not directly emitted, but is formed when volatile organic compounds (VOCs) and oxides of nitrogen (NOx) emissions react in the presence of sunlight. In both 2002 and particularly 2003, the much hotter weather associated with a persistent high-pressure system trapped ozone gases at lower altitudes and contributed to the sharp increase of ozone pollution. In 2004, an unseasonably cool weather and weak atmospheric inversions contributed to the significant reduction of ozone pollution.

Beginning in June 2005, transportation investment must conform to the new 8-hour ozone standard. In 2004, the South Coast Air Basin exceeded the federal 8-hour standard by 90 days, a significant decrease from 120 days in 2003 and once again the lowest since 1976 (Figure 53). The other three basins in the region all achieved reductions in the number of days exceeding the federal 8-hour standard during 2004. For example, in the Mojave Desert Air Basin, the number of days exceeding the federal 8-hour standard declined from 74 days to 49 days between 2003 and 2004.

Figure 53

Ozone Pollution in Non-attainment Air Basins
(Number of Days Exceeding Federal 8-hour Standard)



* Ventura County is part of the South Central Coast Air Basin
Source: California Air Resources Board and South Coast Air Quality Management District

PM_{10}

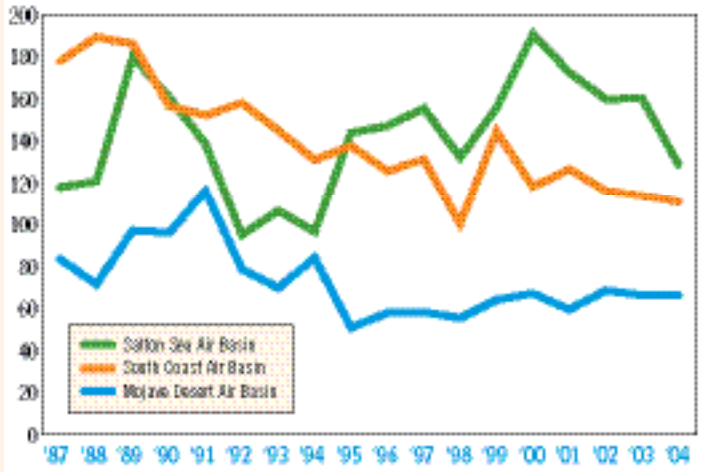
PM_{10} is particulate matter with diameter of 10 microns or smaller. Exposure to particulate matter aggravates a number of respiratory illnesses and may even cause early death in people with existing heart and lung disease. Both long-term and short-term exposure can have adverse health impacts.

Particulate matter can be directly emitted into the air in the form of dust and soot. In addition, similar to ozone, secondary particles can be formed in the atmosphere from the reaction of gaseous precursors such as oxides of nitrogen (NOx), oxides of sulfur (SOx), reactive organic gases (ROG) and ammonia. Secondary particles are more easily formed in the atmosphere during colder winter conditions. On an annual basis, directly emitted PM_{10} emissions contribute approximately 65 percent of the ambient PM_{10} in the South Coast Air Basin.

Three air basins in the region have been designated as non-attainment areas for PM_{10}, including the South Coast, Salton Sea and Mojave Desert. The annual average indicator provides a measure of long-term exposure to particulate matter that could contribute to breathing disorders, reduce lung function, and curtailed lung growth in children.

Since 1987, the South Coast Air Basin has been exceeding the Federal annual average standard of 50 ug/m^3 (micrograms per cubic meter of air) but with a trend toward improvement (Figure 54). In 2004, there

Figure 54



was only a slight reduction from 2003 in the PM_{10} annual average in the South Coast Air Basin. Exceedances of the federal annual standard in the South Coast Air Basin were confined to Riverside County with a maximum of 55.5 ug/m³ (or 111 percent of the federal standard).[6]

In the Salton Sea Air Basin, the PM_{10} pollution level has been fluctuating since 1987. The Salton Sea Air Basin has contained the highest level of PM_{10} annual average within the SCAG region since 1995. Between 2003 and 2004, the annual average of PM_{10} pollution in the Salton Sea Air Basin dropped significantly from 60 percent to about 30 percent over the federal standard. In the Mojave Desert Air Basin, PM_{10} pollution level has been below the federal annual average standard since 1992.

In 2004, the number of days exceeding the federal 24-hour standard (150ug/m³) for PM_{10} decreased in all three non-attainment basins, partly due to cooler weather and an early start of the rainy season. The number of days with an unhealthy level of PM_{10} describes the chronic extent of PM_{10} pollution. Neither the South Coast nor Majave Desert Air Basin had any exceedance in 2004. Only the Salton Sea Air Basin experienced 13 days of exceedance of the federal 24-hour standard, a decrease from 28 days from 2003 (Figure 55).

Figure 55

PM_{10} Pollution in Non-attainment Air Basins

Days Exceeding Federal PM_{10} 24-hour Standard

AIR BASINS	2002	2003	2004
South Coast	0	6	0
Mojave Desert	6	8	0
Salton Sea	13	28	13

Source: California Air Resources Board

California state standards for PM_{10} are significantly more stringent than federal standards due to greater consideration given to the potential health impacts. Specifically, the state annual average standard for PM_{10} of 20 ug/m³ is only 40 percent of the federal standard of 50 ug/m³. In 2004, both the Salton Sea and South Coast air basins continued to significantly exceed the state annual average standards. In addition, the state 24-hour standard for PM_{10} of 50 ug/m³ is only a third of the federal standard of 150 ug/m³. In 2004, the Salton Sea Air Basin ex-

ceeded the state standard on 220 days, while the South Coast Air Basin exceeded on 210 days.[7]

$PM_{2.5}$

$PM_{2.5}$ is a subgroup of finer particles within the classification of PM_{10}. They pose increased health risks because they can penetrate deeper in the lung than PM_{10} and contain substances that are particularly harmful to human health. The U.S. EPA promulgated national $PM_{2.5}$ standards in 1997.

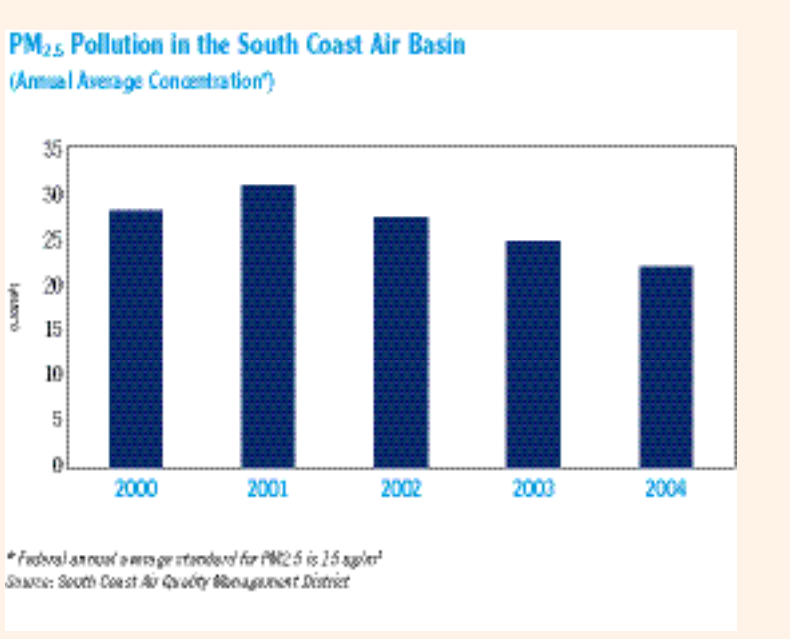
While the annual average concentration of 22.1 ug/m³ in the South Coast Air Basin declined in 2004 from the previous year (24.9 ug/m³), it continued to exceed the federal standards of 15 ug/m³.[8] Specifically, 15 of the 19 monitoring stations in the basin showed exceedance, ranging from coastal cities to inland valleys. Nevertheless, the annual average $PM_{2.5}$ concentration in the South Coast Air Basin in 2004 was the lowest since monitoring began in 1999.

$PM_{2.5}$ concentrations, like PM_{10}, were high in the inland valley areas of San Bernardino and Riverside counties. However, $PM_{2.5}$ concentrations were also high in the metropolitan areas of Los Angeles and Orange counties. The high $PM_{2.5}$ concentrations in these areas are mainly due to the secondary formation of smaller-sized particulate resulting from mobile and stationary source activities.

$PM_{2.5}$ particles on average are smaller than PM_{10} particles and are more difficult to control. In 2004, while the South Coast Air Basin did not have any exceedance of the federal 24-hour standard for PM_{10}, it exceeded the federal 24-hour standard for $PM_{2.5}$ on 7 days, a decrease from 14 days in 2003.

On an annual basis, directly emitted $PM_{2.5}$ emissions contribute approximately 40 percent of the ambient $PM_{2.5}$ in the South Coast Air Basin. Among the directly emitted $PM_{2.5}$ emissions, close to 60 percent are from areawide sources, while 30 percent are from mobile sources and another 10 percent are from stationary sources.

Figure 56



Carbon Monoxide

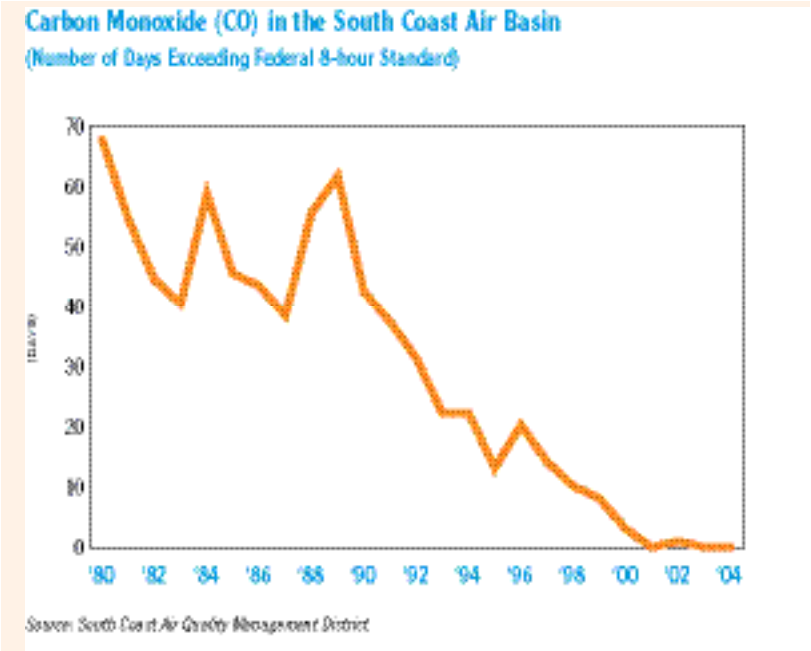
Carbon monoxide is a colorless and odorless gas that is directly emitted as a product of combustion. Incomplete combustion will result in increased carbon monoxide emissions. Motor vehicles generate almost 85 percent of carbon monoxide emissions in the region. Since 1975, total emissions of carbon monoxide in the South Coast Air Basin have been reduced by almost 70 percent even though vehicle miles traveled

have been increasing. On-road motor vehicle emission controls have been primarily responsible for this significant improvement.

Carbon monoxide impairs the ability of blood to carry oxygen. It is especially dangerous to infants, the elderly and people with heart or respiratory problems. Exposure to high levels of carbon monoxide can result in headaches, dizziness, fatigue, slow reflexes and death.

In 2002, the South Coast Air Basin met federal attainment standards for carbon monoxide (with no violation in 2001 and the one day allowable exceeding the federal standard in 2002). The basin continued to have no violation for carbon monoxide in 2003 and 2004. In the past two decades, peak 8-hour carbon monoxide levels also decreased in the South Coast Air Basin from 26 ppm in 1980 to 6.7 ppm in 2004 in south central Los Angeles County.[9]

Figure 57



Source: South Coast Air Quality Management District

Water Resources

Total Water Use

Why is this important?

Water is essential to human life. With the continuing increase of population in the region, ensuring reliable water resources to meet demand and maintaining water quality are vital goals for all of Southern California. In addition, how water is used would also impact the health and sustainability of the regional ecosystem.

How are we doing?

Southern California depends on both imported and local sources to meet its demand for water. This includes imported water from the Colorado River, the State Water Project via the California Aqueduct, and eastern Sierra Nevada via the Los Angeles Aqueduct. *Together, depending on the rainfall level, imported water generally accounts for about 70 to 75 percent of the regional water supply.* The remaining 25 to 30 percent comes from local surface and ground water and from reclaimed water sources.[10] *It is important to note that available water from all three imported sources may be reduced in the future as other users and uses place greater demands on these sources*. For example, environmental and water quality needs in the Delta, Colorado River and Owens River/Mono Basin systems affect import water supply quantity, quality and reliability. In addition, the region also needs to assess and plan for impacts of climate variations and global climate change.

Within the SCAG region, the Metropolitan Water District (MWD) is the largest urban water supplier. Its service area includes close to 15

million residents in the region (Figure 58). In recent years, MWD has provided about half of the municipal, industrial and agricultural water used in its service area.

Figure 58

Population Within Water District Service Area

COUNTY	MWD	Non-MWD
Imperial	0%	100%
Los Angeles	92%	8%
Orange	100%	0%
Riverside	72%	28%
San Bernardino	41%	59%
Ventura	72%	28%
REGION	85%	15%

Source: Metropolitan Water District

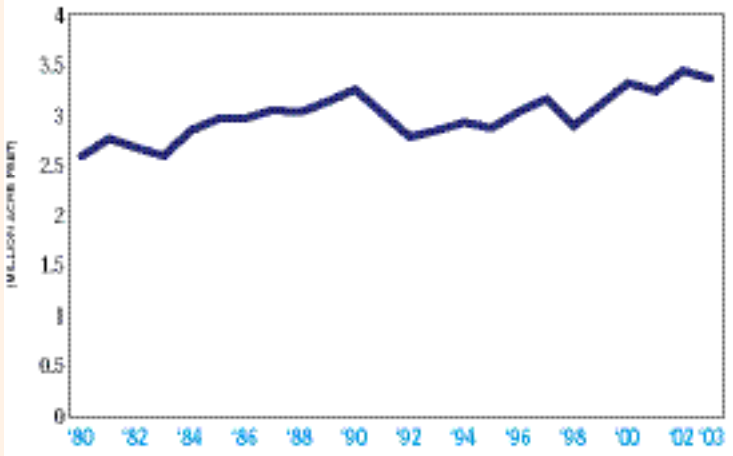
In 2003, total water consumption at 3.4 million acre-feet represented a 2.2 percent decline from 2002. The 2003 level was only slightly higher (or 3.2 percent) than the 1990 level, despite an increase of almost 2.3 million (16 percent) residents since 1990 (Figure 59). Within the MWD service area in the SCAG region, total water consumption did not experience significant increases for several years in the mid-1990s due to the recession, wet weather, conservation efforts, and lingering drought impacts.

Of total consumption, only 7.5 percent was for agricultural purposes and the rest was for urban (municipal and industrial) uses. The sources of water supplies for irrigation operations differ throughout the region. Groundwater is the primary source of water for the agricultural activities on the coastal plain of Ventura County. In Los Angeles and Orange counties, combinations of groundwater and imported water are used.

Figure 59

Total Water Consumption*

(Metropolitan Water District Service Area)



*Within the SCAG region. Total water consumption includes municipal/industrial and agricultural uses.
**One acre foot equals 325,851 gallons.

Source: Metropolitan Water District

In recent years, the region has developed an array of local projects to complement imported water supplies. They include surface water storage, groundwater storage and conjunctive use, water recycling, conservation, brackish water desalination, water transfer and storage, and infrastructure enhancements. For example, in 2003, MWD opened Diamond Valley Lake located near Hemet in southwestern Riverside County, the Southland's largest reservoir with a capacity of 800,000

acre-feet. Diamond Valley Lake would provide the region with a six-month emergency supply in case of a major system interruption due to earthquakes or other disasters. In addition, MWD gained three new partners for ground water storage, improving the region's reliability in dry years by arranging for additional storage in wet years.

Finally, when completed, the Inland Feeder will deliver water by gravity to Diamond Valley Lake via nearly 44 miles of tunnels and pipeline that start at Devil Canyon and tie into the Colorado River Aqueduct and eastside Pipeline. The Inland Feeder Project will enhance system reliability by linking the State Water Project and Colorado River systems and will improve water quality by allowing greater blending of SWP and Colorado River waters.

Per Capita Urban Water Use

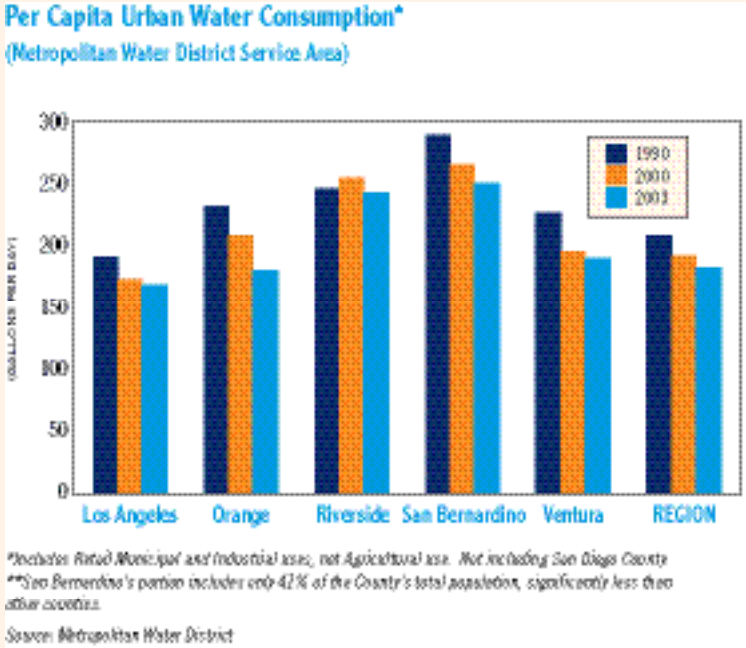
Why is this important?

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

How are we doing?

Per capita water consumption for urban uses has generally been declining since 1990. Within the MWD service area it decreased from 210 gallons in 1990 to 193 gallons in 2002 and 184 gallons in 2003 (Figure 60). Between 2000 and 2003, per capita water consumption decreased in all five SCAG counties within the MWD service area, particularly Orange, Riverside and San Bernardino. Urban water use includes residential, commercial, industrial, fire fighting and other uses. Hence, per capita urban water use consists of more than the amount of water used directly by an individual.

Figure 60



An important factor contributing to the overall decline in per capita urban water consumption is the development of various conservation programs and practices. These include retrofitting with water efficient technology for showerheads and toilets and changing landscaping practices toward drought-tolerant plants. In addition, implementation of new water rate structures has helped suppress growth in per capita water demand.

In Southern California, much of the variation in per capita water use among counties can be attributed to climate differences. Within the region, the Inland Empire counties continued to maintain higher per capita urban water consumption rates than coastal counties. For example, in 2003, per capita urban water consumption per day in San Bernardino and Riverside counties was 252 and 245 gallons respectively in contrast to 182 gallons in Orange County and 170 gallons in Los Angeles County. This partly reflects higher landscape water use due to warmer and dryer climate conditions. In addition, a single family unit has higher per capita water use than a multi-family unit. The Inland Empire has much higher share (72 percent) of single-family residential units than Los Angeles County (55 percent) or Orange County (63 percent).

Beach Closure

Why is this important?

When the ocean waters off a beach contain high concentrations of certain bacteria, they become unsafe for swimming and other recreational uses. In 1999, the California Department of Health began monitoring all beaches which have more than 50,000 annual visitors and have outflows from storm drains, rivers, or creeks. Closures or advisories are issued for beaches that fail to meet the state's standards for various sources of bacterial pollution.

How are we doing?[11]

Between 2003 and 2004, the total number of beach closing/advisory days decreased from 3,508 to 2,860 among the 98 beaches monitored in the region. The decrease of 18 percent of beach closing/advisory days was less than that at the state level during the same period, from 5,384 to 3,985, or 26 percent.

In 2004, Los Angeles County experienced a record of 1,469 beach closing/advisory days, the highest number in the past 5 years and also the highest among all California counties for the second consecutive year. Following Los Angeles County were Orange County (939 beach closing/advisory days), San Diego County (472) and Ventura County (452). Polluted urban stormwater runoff continues to be the largest source of pollution and the predominant cause of beach closing across the state.

Between 2003 and 2004, the number of beach closing/advisory days in Los Angeles County increased slightly from 1,459 to 1,469, a 1 percent increase following the 60 percent increase during the previous period. Almost 97 percent of total beach closing/advisory days in the county in 2004 were due to elevated bacterial levels from unknown

sources. The remaining three percent were due to preemptive rain advisories, preemptive closing due to known sewage contamination events or reported stormwater sources.

Orange County experienced a 26 percent decrease from 1,329 to 939 beach closing/advisory days between 2003 and 2004, after significant increase during the previous period. Similar to conditions in Los Angeles County, 88 percent of total beach closing/advisory days in Orange County were due to elevated bacterial levels from unknown sources. Ventura County also experienced a 37 percent decrease from 720 to 452 beach closing/advisory days between 2003 and 2004, after significant reductions during the previous period. Among the total beach closing/advisory days, about 62 percent were due to stormwater and 34 percent were from unknown source of contamination.

Solid Waste

Why is this important?

Disposing of waste in landfills is not only costly but, if not treated properly, could have dire impacts on the ecosystem and human health. For example, decomposition of waste in landfills releases methane into the atmosphere, a significant contributor to global warming. Hence, a sustainable society would minimize the amount of waste sent to landfills by reducing, recycling or reusing the waste generated as much as possible.

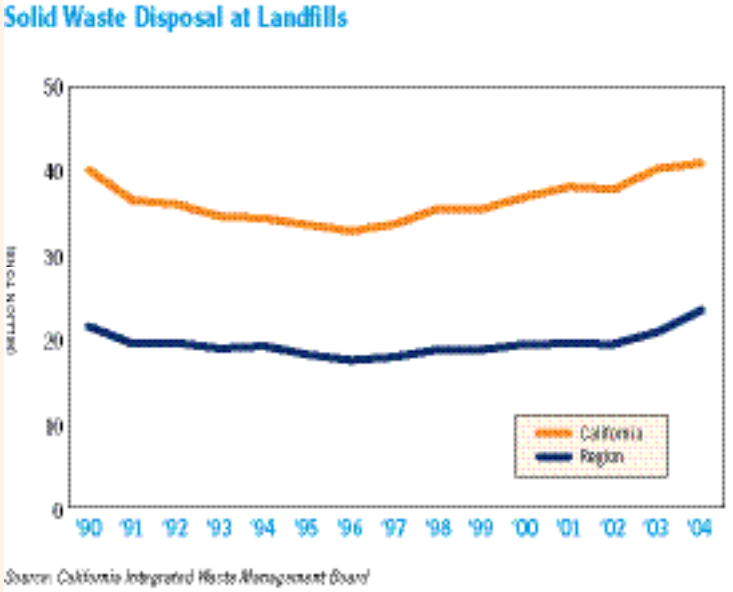
How are we doing?

The 1989 California Integrated Waste Management Act set the goal of 50 percent diversion of each city and county's waste from landfill disposal by the year 2000. Diversion measures include waste prevented, waste re-used, waste recycled or waste composted. Waste diversion programs such as curbside recycling pickups, greenwaste collection, and municipal composting have steadily increased the diversion rate.

At the statewide level, the diversion rate – the share of amount diverted out of the total waste generated - increased from 10 percent in 1989 to 47 percent in 2003, and increased slightly to 48 percent in 2004.[12] Hence among the 78 million tons of waste generated in California in 2004, over 37 million tons were diverted. Among the total waste generated in 2004, about 30 percent was organic matter, 22 percent was construction and demolition materials and 21 percent was paper.[13]

In 2004, the total amount of waste disposed to landfills in the region reached 23 million tons, an increase of 2.5 million tons from 2003. It was also a higher level than any year since 1990 (Figure 61). During the 1990s, waste sent to landfills in the region declined for several years, however, it has increased gradually since 1996. This is similar to the trend at the state level. Many landfills in the region are running out of capacity while environmental concerns make building new landfills or expanding existing landfills increasingly difficult.

Figure 61

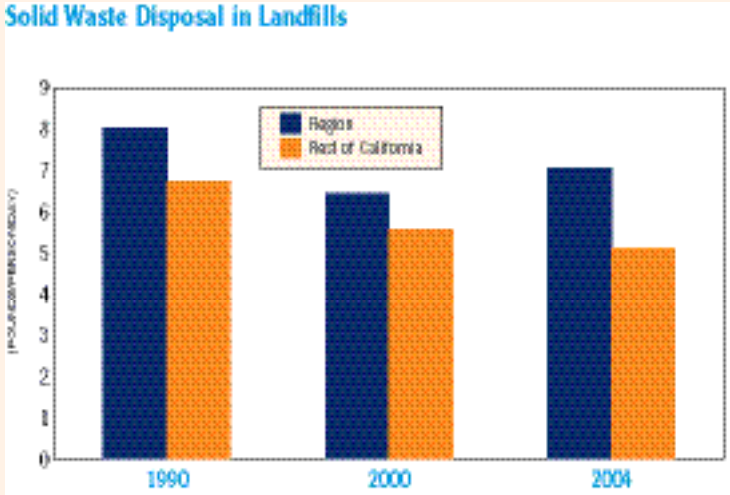


Recent growth in construction activities and the challenges associated with diverting construction and demolition debris have contributed to the increase of disposal. The share of construction and demolition materials of the waste stream increased from about 12 percent in 1999 to 22 percent in 2004. Construction and demolition materials include, for example, lumber, drywall, metals, brick, concrete, carpet or green waste related to the development. Of these, metals are the most commonly recycled material while lumber makes up the majority of debris that still goes to a landfill. In March 2004, the California Integrated Waste Management Board adopted a model ordinance, as directed by previous State legislation, to provide information on

methods and activities to divert construction and demolition materials. Reuse and recycling of construction and demolition materials is one component of a larger holistic practice called sustainable or green building construction.

Since the passage of the Waste Management Act in 1989, the region began to make progress in reducing the amount sent to landfills on a per capita basis. In 1990, the region disposed about 8 pounds of solid waste per capita per day into the landfills, higher than that of the rest of the state. Various measures to implement the Act had reduced the per capita disposal rate in the region continuously to just over 6 pounds per day (or almost 25 percent) in 1996, the lowest level since 1990. Between 1996 and 2000, per capita disposal rates fluctuated between 6 and 6.5 pounds per day. Between 2000 and 2004 and particularly after 2002, per capita disposal rate increased and reached over 7 pounds per day, while the rest of the state achieved some reductions (Figure 62).

Figure 62



"In an increasingly knowledge-based society, education is becoming the key to an individual's development and well-being."

QUALITY OF LIFE

Education

Why is this important?

Student performance is measured through three indicators: 1) test scores for eighth grade, 2) high school dropout rates, and 3) percent of high school graduates completing courses required for the University of California (UC) or California State University (CSU) entrance. In an increasingly knowledge-based society, education is becoming the key to an individual's development and well-being. High school dropouts are severely disadvantaged in competing for quality jobs. Performance on the third indicator reflects the potential level of success in pursuing college education by high school graduates.

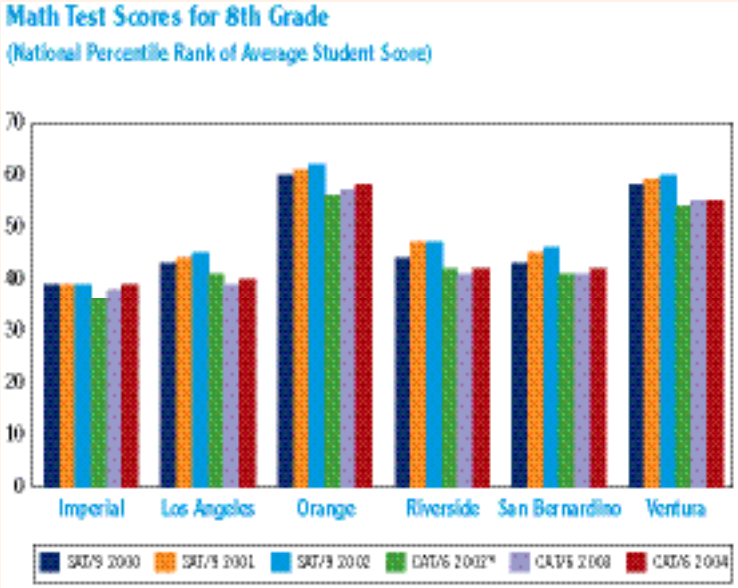
How are we doing?

In 2004, the 8th graders (graduating class of middle schools) in the region continued to perform below the national median in reading and math test scores except in Orange and Ventura counties (Figures 63 and 64). Between 2003 and 2004, there were slight improvements in math scores throughout the region relative to the nation. However, reading scores remained the same during the period. Test scores are affected by several factors including student/teacher ratio. It should be noted that California continues to have the second highest student/teacher ratio in the nation.

Between 2003 and 2004, dropout rates for high schools decreased in Imperial, Orange and Riverside counties. However, dropout rate in San Bernardino County has been increasing continuously since 2000. In 2004, both Los Angeles (19 percent) and San Bernardino (17 percent) counties experienced much higher dropout rates than the state average (13 percent). The dropout rate also increased slightly at the state level between 2003 and 2004. Within the region, Imperial and Ventura counties achieved the lowest dropout rates at 4 percent (Figure 65). It should be noted that in the 2002-2003 school year, the California Department of Education started using the National Center for Education Statistics dropout rate criteria.

African American and Hispanic high school students across the region, when compared with their White and Asian peers, had significantly higher dropout rates (Figure 66). The disparity was most

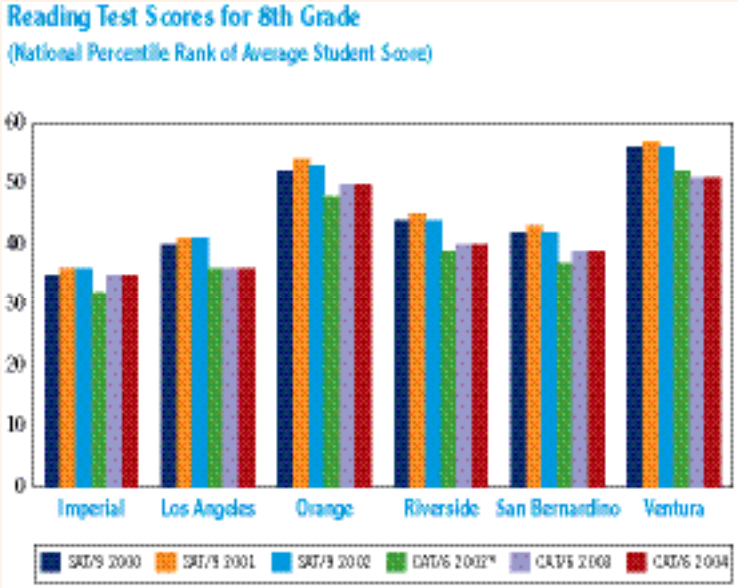
Figure 63



*California switched from using the SAT/9 score in 2002 to the CAT/6 score in 2003. The CAT/6 2002 score is not actual, but predicted, based on the SAT/9 2002 score. It can be compared to the CAT/6 2003 score to see improvement.

Source: Department of Education

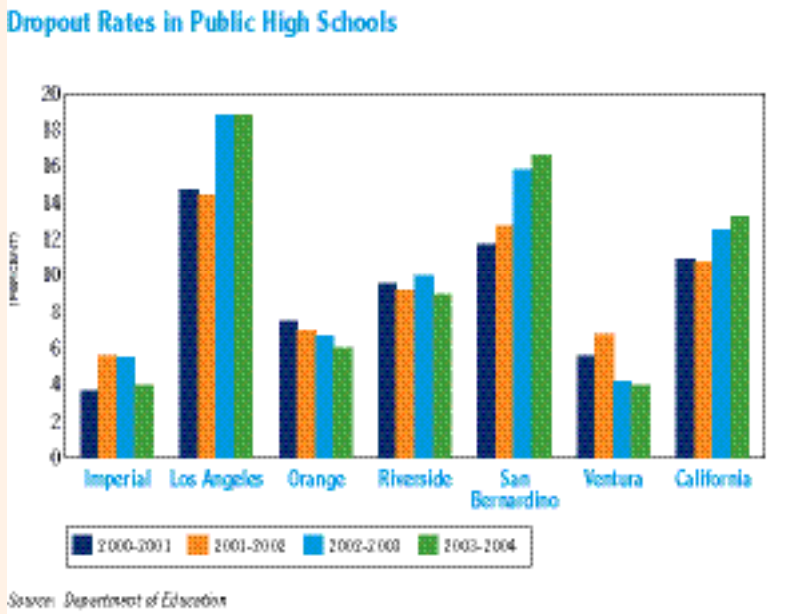
Figure 64



*California switched from using the SAT/9 score in 2002 to the CAT/6 score in 2003. The CAT/6 2002 score is not actual, but predicted, based on the SAT/9 2002 score. It can be compared to the CAT/6 2003 score to see improvement.

Source: Department of Education

Figure 65



Source: Department of Education

pronounced in Los Angeles and San Bernardino counties. For example, in 2004, the dropout rate for African American students in Los Angeles County reached 30 percent, and Hispanic students with 22 percent compared with 10 percent for non-Hispanic Whites and 7 percent for Asians.

Within the region, the dropout rates for African American and Hispanic high school students were comparable except in Los Angeles County. This is different from the national trend in which Hispanic students had the highest dropout rate. Asian students generally had the lowest dropout rates.

Figure 66

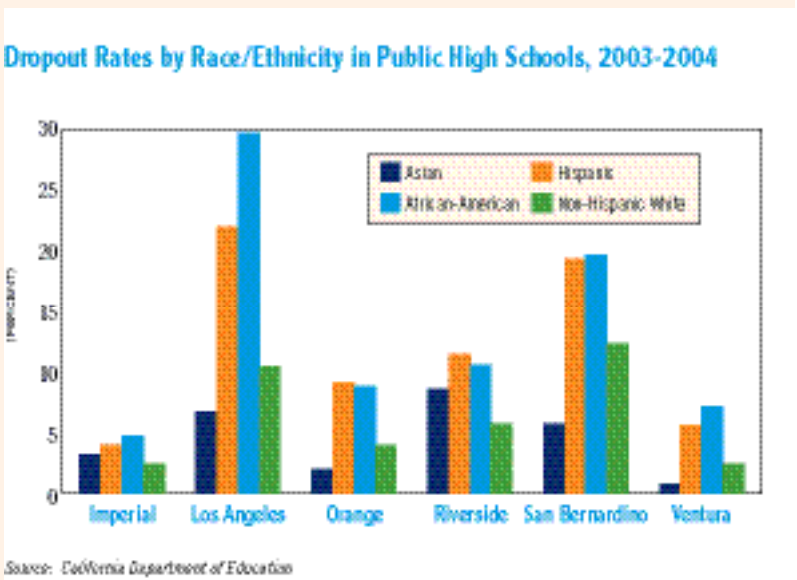
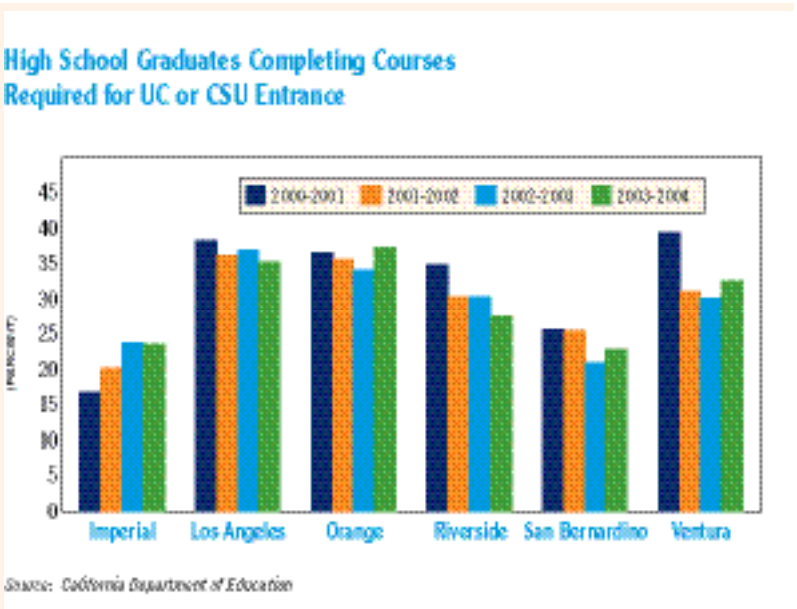


Figure 67



As to the percentage of high school graduates completing courses required for University of California (UC) or California State University (CSU) entrance, while Orange, San Bernardino and Ventura made noticeable progress in 2004, both Los Angeles and Riverside counties experienced lower performance. More importantly, when comparing 2004 with 2000, only Imperial and Orange counties made some improvements. In 2004, every county in the region had less than 40 percent of high school graduates complete courses required for UC or CSU entrance (Figure 67).

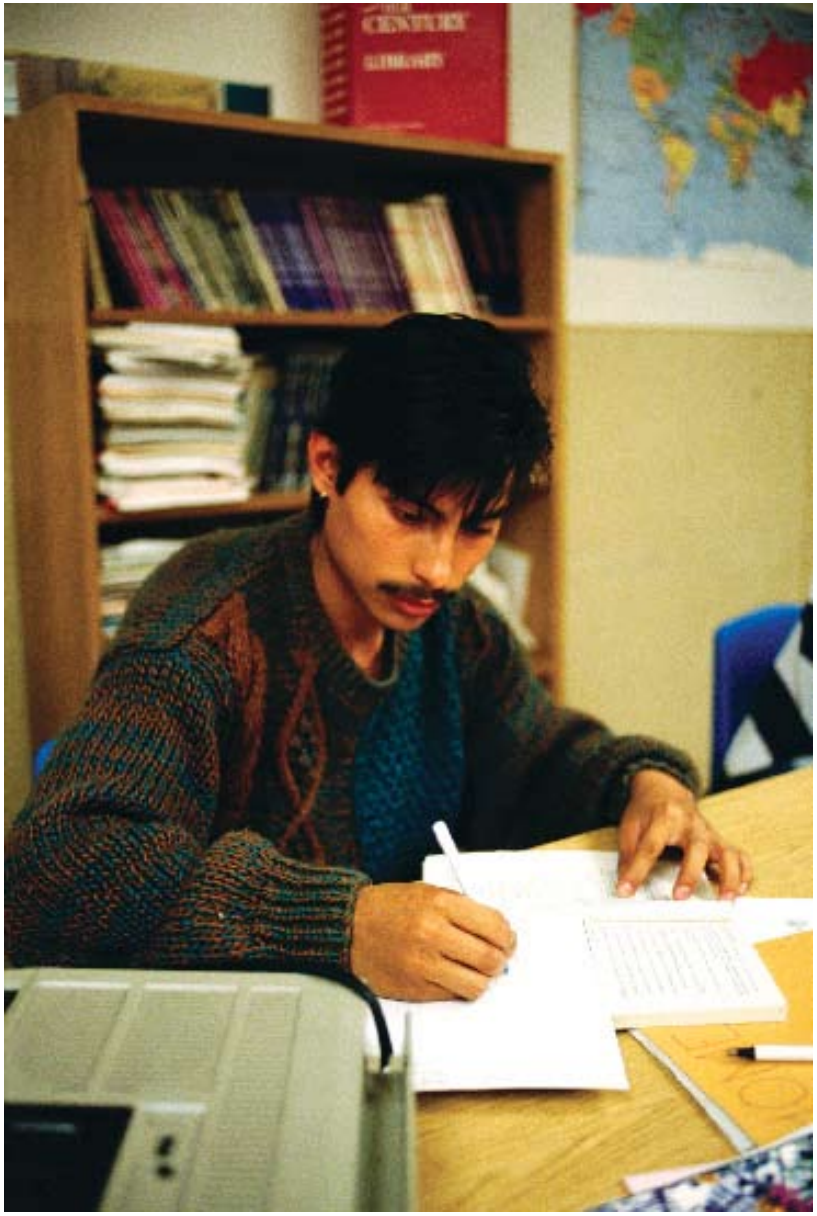
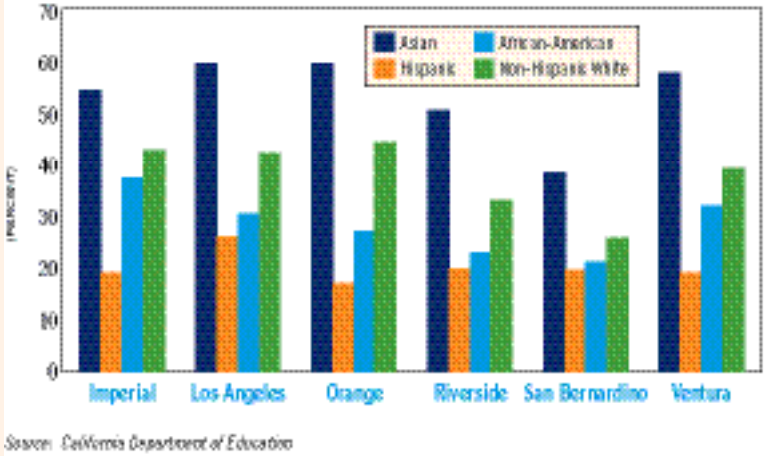


Figure 68



There were also similar patterns of racial and ethnic disparities in the region (Figure 68). In each of the six counties in the region, Asian students consistently had the highest percentage in completing courses required for UC or CSU entrance, while Hispanic students consistently had the lowest. For example, while 60 percent of Asian graduates in Orange County completed courses required for UC or CSU entrance, only 45 percent of the non-Hispanic White students, 28 percent of the African students and 18 percent of the Hispanic students achieved the same. Among Hispanics, two-year community colleges are the most frequently used institutions of higher education.

Recent Studies found that in California there are significant increases in educational attainment from first-generation immigrants to their second-generation adult children (aged 25 to 49).[1] For all ethnic

groups, while 38 percent of the first-generation parents did not complete a high school education, only 10 percent of their second-generation adult children failed to do so. For Mexican immigrants, who are among the least educated populations in the U.S, the second generation has been making impressive progress. While only 25 percent of Mexican immigrant parents received at least a high school diploma, 86 percent of their second-generation adult children did. In addition, only 3 percent of Mexican immigrant parents received at least a bachelor's degree while 12 percent of their second-generation adult children did. Despite the dramatic progress, second-generation Mexican adult children still lagged significantly behind White second-generation descendants with 34 percent receiving at least a bachelor's degree.

In 2004, there were slight improvements from 2003 in educational attainment. *Between 2000 and 2004, there were more noticeable improvements in the region following national trends. During this period, the percentage of adults with at least a high school degree increased from 74 to 77 percent while the percentage of adults with at least a bachelor's degree increased from 25 to 27 percent.* Nevertheless, among the nine largest metropolitan regions, the SCAG region remained in last place in the percentage of adults (77 percent) with at least a high school diploma, and 2nd to last for at least a Bachelor's degree (27 percent).[2]

Public Safety

Why is this important?

Crime-related activities consume an enormous amount of valuable social and economic resources. The social costs are substantial if less quantifiable, including pain and suffering of crime victims and their

Figure 69

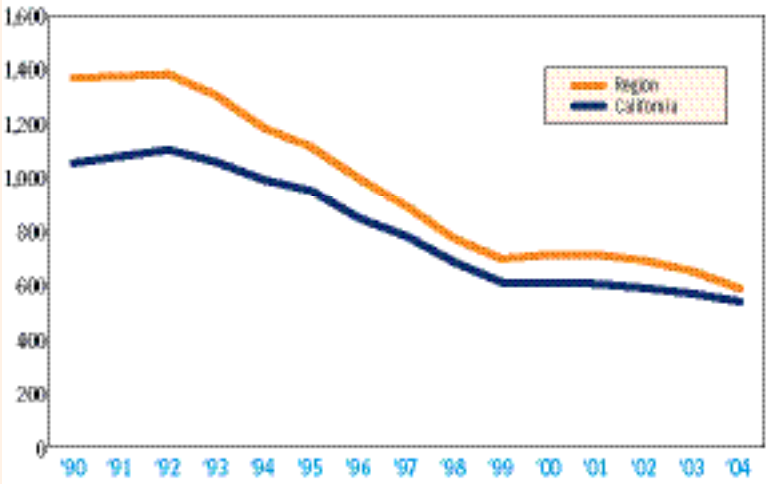
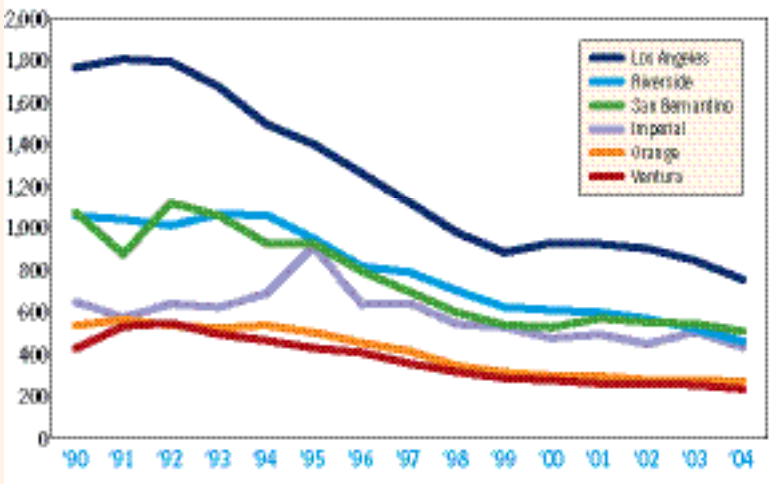


Figure 70



families and weakening of community cohesion. The economic costs include loss of productivity due to death or disability resulting from crime, medical costs, and loss of property values in neighborhoods with high crime rates.

How are we doing?

Violent Crimes

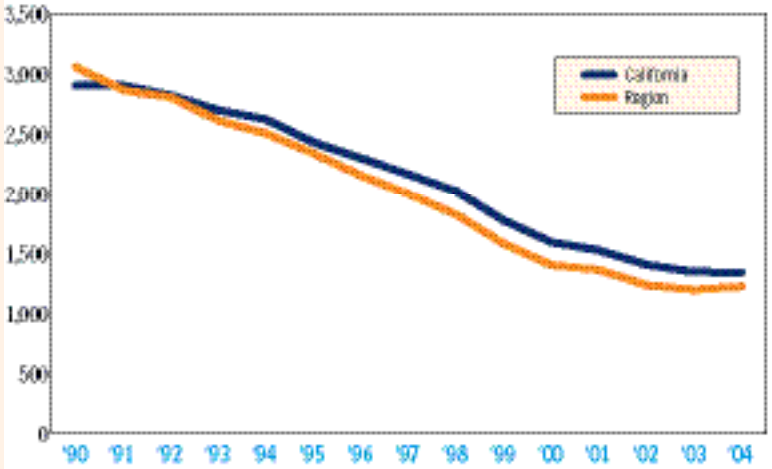
In 2004, the violent crime rate in the region declined by almost 10 percent from 2003, larger than the 6 percent reduction during the previous period. At the state level, violent crime declined by about 5 percent between 2003 and 2004 (Figure 69). Violent crime rates in both the region and the state peaked in 1992 and have been declining since then, except for a slight increase in 2000. In 2004, violent crime rate in the region was only about 43 percent of the 1992 level. In addition, though the region continued to have a higher violent crime rate than the state, the gap has also been narrowing.

Violent crimes include four types: homicides, forcible rapes, robberies and aggressive assaults. In 2004, among the 105,861 violent crime incidents, 64,864 (or 61 percent) were aggravated assaults, 35,422 (34 percent) were robberies, 4,267 were forcible rapes (4 percent) and 1,414 (1 percent) were homicides. *From 2003 to 2004, both the total numbers as well as crime rates declined across all four types of violent crimes.* During this period, the total number of homicides in the region decreased

slightly from 1,428 to 1,414. Los Angeles County continued to account for almost three-quarters of the total homicides in the region.

Every county in the region achieved a reduction of the violent crime rate in 2004 (Figure 70). The reduction was most significant in Imperial County (-14.4 percent) and Riverside County (-11.3 percent). Almost three-quarters of the violent crimes took place in Los Angeles County. Ventura and Orange counties consistently had the lowest rates in violent crimes in the region.

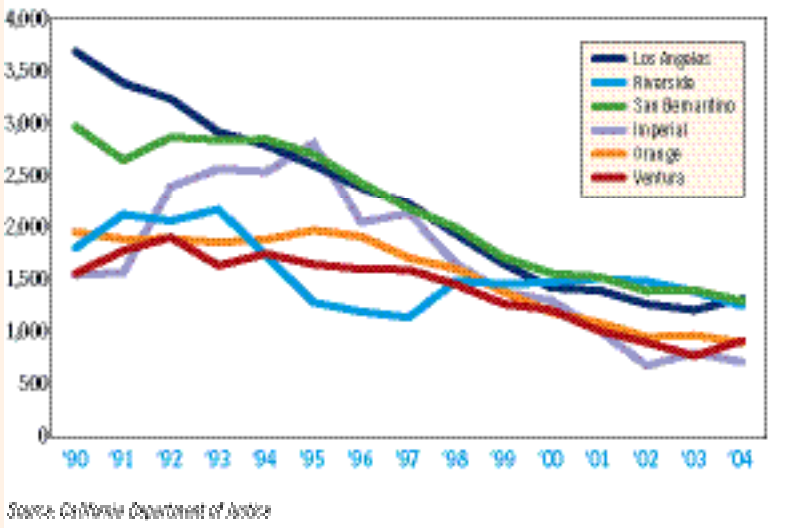
Figure 71



Juvenile Felony Arrests

A juvenile felony offense is defined as a crime that is punishable by death or imprisonment for those aged 10 to 17. *From 2003 to 2004, the juvenile felony arrest rate in the region increased by about 2 percent, in contrast to the trend of continuous decline between 1990 and 2003. At the state level, juvenile felony arrest rate in 2004 remained almost the same as in the previous year* (Figure 71).

Figure 72



Within the region, juvenile felony arrest rates increased significantly in Ventura County (18 percent) and Los Angeles County (9 percent). The other four counties, however, achieved significant reductions ranging from 7 percent in San Bernardino County to 11 percent in Imperial County. San Bernardino County had a similar juvenile felony arrest rate as Los Angeles in 2004, reversing circumstances of a decade ago in which it had much lower rates than Los Angeles County.

In 2004, the region had 27,912 juvenile felony arrests. Among them, 5,733 arrests (or 21 percent) were for burglary, 4,923 arrests (18 percent) for theft (including motor vehicles) and another 4,598 arrests (or 16 percent) for assault. In addition, 3,066 arrests (or 11 percent) were for drug law violation. More than three quarters of the total juvenile arrests were males.

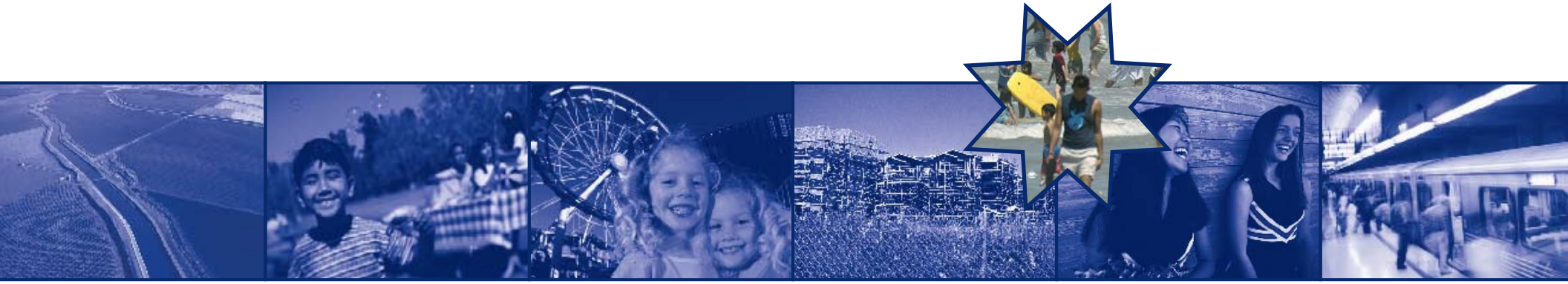
Hate Crimes

The number of hate crime events and victims in the region declined by about 8 percent between 2003 and 2004, following a 12 percent reduction during the previous period. Hate crimes can be in the form of violent crimes (64 percent) or property crimes (36 percent).[3] As to the motivations for hate crimes, statewide data indicated that about 65 percent of the events in 2004 were due to race/ethnicity/national origin bias followed by about 19 percent for sexual orientation bias and 15 percent for religious bias. About 30 percent of the hate crimes events took place around residences, another 30 percent on highways/streets, and 10 percent in schools/colleges.

The year 2001 was the peak year in hate crimes in the last five years due primarily to the September 11 terrorist attacks. Within the region, Los Angeles County experienced disproportionately higher hate crime incidences. For four consecutive years, about 70 percent of all hate crime events and victims were in Los Angeles County.


"Among the 17 largest metropolitan regions in the nation,
the SCAG region continued to rank last in per capita income."

METROPOLITAN REGIONS



In order to fully assess the progress of Southern California, it is useful to compare the performance of the SCAG region with other large metropolitan regions in the nation.

Currently, there are nine metropolitan regions in the nation with more than 5 million residents (Figure 73). They are also designated by the U.S. Census Bureau as Consolidated Metropolitan Statistical Areas (CMSAs). Four are located in the Northeast (New York, Washington, DC, Philadelphia and Boston), two in the Midwest (Chicago and Detroit), one in the South (Dallas) and two in the West (SCAG region and San Francisco Bay Area). In 2004, only two had population exceeding 10 million, the New York region (21.6 million) and the SCAG region (17.7 million). The other regions had population between 5 and 10 million. Total population in the nine largest metropolitan regions exceeded 87 million in 2003, about 30 percent of the nation's population.

Socio-Economic Indicators

Population Growth

Between 2000 and 2004, among the nine largest metropolitan regions, the SCAG region achieved the largest population increase of approximately 1.2 million people. Southern California also experienced the 2nd highest growth rate (7.1 percent) following Dallas (10.4 percent).

Figure 73

Population by Metropolitan Region (Thousands)

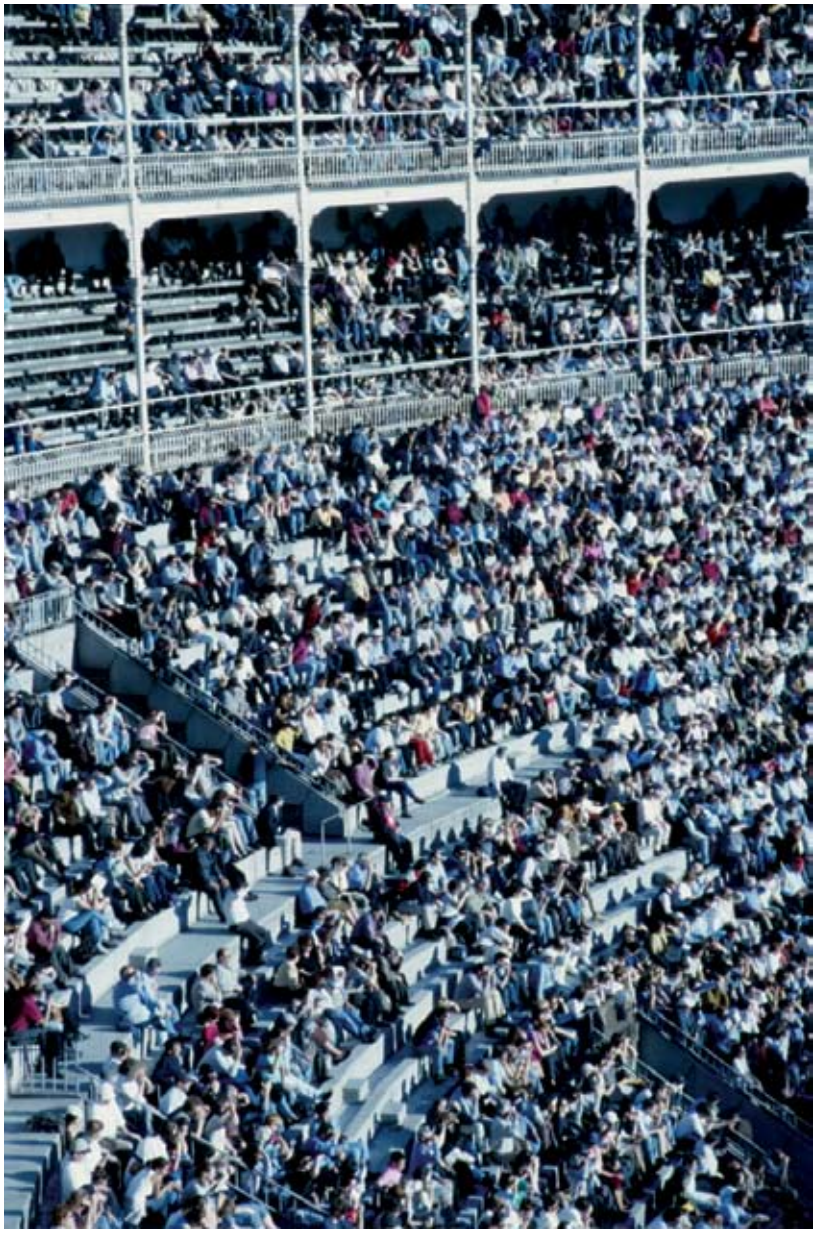
		Population		Population Increase	
Rank	Metropolitan Region Name	2000	2004	2000 - 2004 Number	2000 - 2004 % Change
1	New York-Northern New Jersey-Long Island, NY-NJ-CT-PA CMSA	21,199.9	21,597.8	397.9	1.9%
2	**SCAG Region ***	**16,516.8**	**17,688.8**	**1,172.6**	**7.1%**
3	Chicago-Gary-Kenosha, IL-IN-WI CMSA	9157.5	9,452.7	295.2	3.2%
4	Washington-Baltimore, DC-MD-VA-WV CMSA	7,608.0	8,067.3	459.3	6.0%
5	San Francisco-Oakland-San Jose, CA CMSA	7,039.4	7,103.5	64.1	0.9%
6	Philadelphia-Wilmington-Atlantic City, PA-NJ-DE-MD CMSA	6,188.5	6,321.2	132.7	2.1%
7	Boston-Worcester-Lawrence, MA-NH-ME-CT CMSA	5,819.1	6,150.9	331.8	5.7%
8	Dallas-Fort Worth, TX CMSA	5,221.8	5,764.9	543.1	10.4%
9	Detroit-Ann Arbor-Flint, MI CMSA	5,456.5	5,530.6	74.1	1.4%
	TOTAL	80,206.6	87,677.5	3,470.9	4.1%

** The SCAG region includes Imperial, Los Angeles, Orange, Riverside, San Bernardino and Ventura Counties.*

With the exception of Imperial, the other five counties belong to the Los Angeles-Riverside-Orange County Consolidated Metropolitan Statistical Area (CMSA).

***For Specific counties included in each CMSA above, please see the Statistical Abstract of the United States: 2003.*

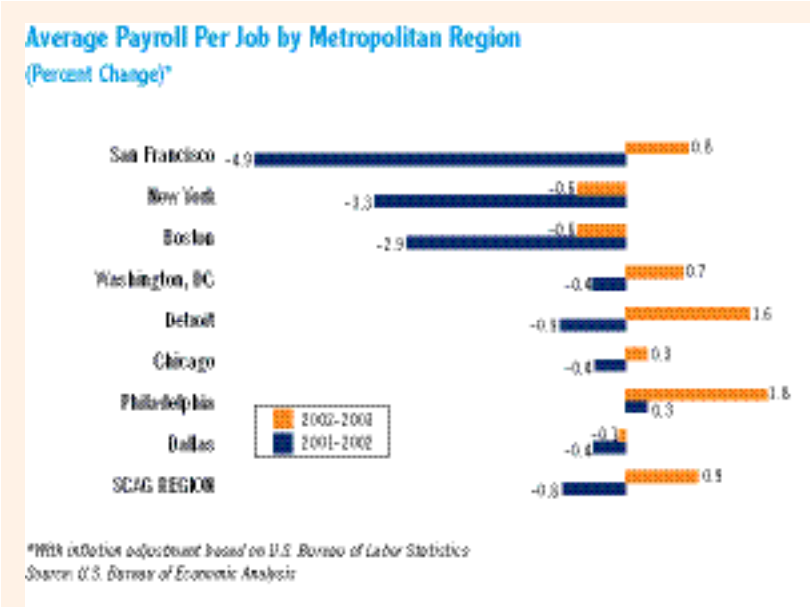
Source: Data in 2000 is based on the 2000 Census, and data in 2004 is based on the Census July 1, 2004 estimates.



Average Payroll per Job

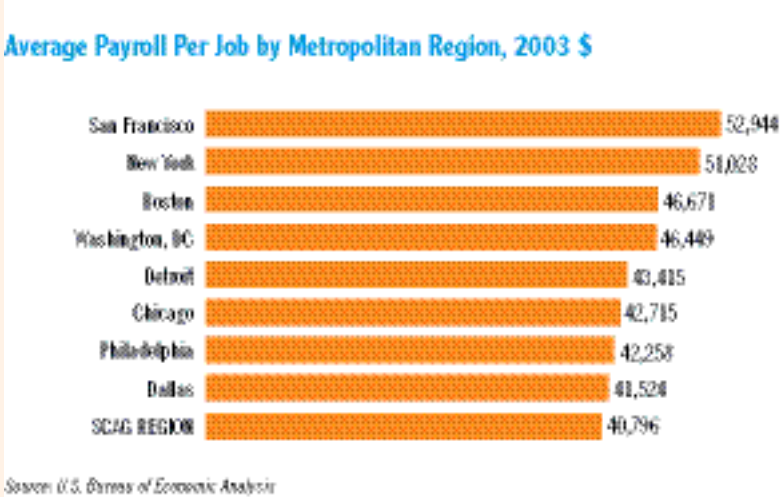
In 2003, the average payroll per job in the region increased slightly by 0.9 percent from 2002 after adjusting for inflation, after declining for the previous two consecutive years. Among the nine largest metropolitan regions in the nation, the SCAG region ranked 3rd in the percentage change of average payroll per job from 2002 to 2003. In 2003, the San Francisco Bay Area achieved the most significant rebound of 0.8 percent increase, following a sharp decline of 4.7 percent in its average payroll per job during the previous period.

Figure 74



In 2003, the SCAG region ranked last in average payroll per job at about $40,796 among the nine largest metropolitan regions (Figure 74). The San Francisco Bay Area continued to have the highest average payroll per job at $52,944 followed by New York. It is interesting to note that the nine regions fall into three tiers as to their average payroll per job. The first tier includes the San Francisco Bay Area and New York regions with average payrolls per job above $50,000. The second tier includes Boston and Washington, DC regions with average payrolls per job just above $46,000. The third tier includes Chicago, Detroit, Dallas, Philadelphia and the SCAG region with average payrolls per job around $42,000.

Figure 75



Income

In 2003 (the most current official data available), real per capita personal income in the SCAG region decreased slightly by 0.4 percent from 2002 after adjusting for inflation. The Boston region suffered a sharp decline of 2.3 percent in its per capita personal income. Changes in per capita income generally followed the pattern of changes in average payroll per job.

Data on per capita personal income in 2004 are still not available and are scheduled to be released in May 2006 by the U.S. Bureau of Economic Analysis. However, estimates made by university researchers indicate that the SCAG region's per capita income is estimated to increase by approximately 2 percent from its 2003 level.[1]

Figure 76

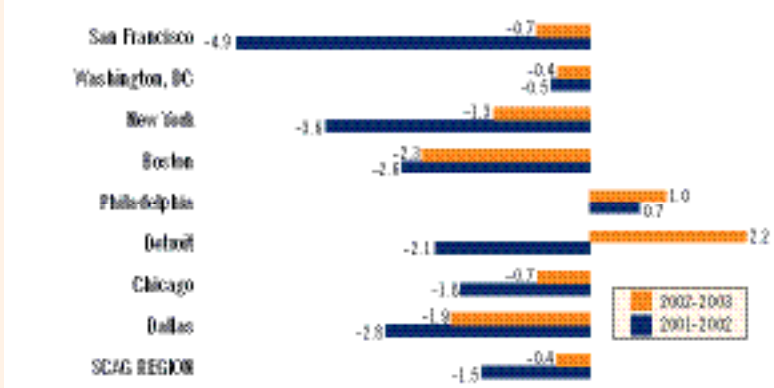
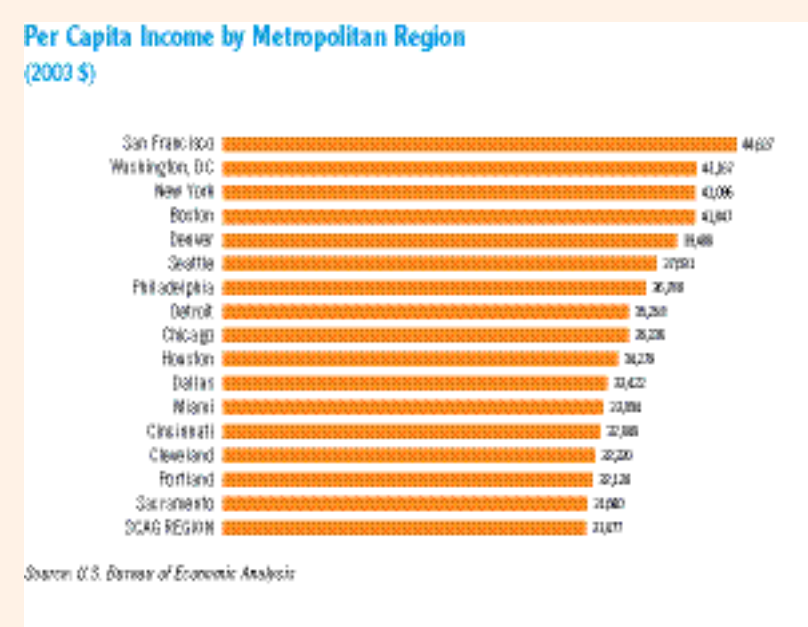


Figure 77

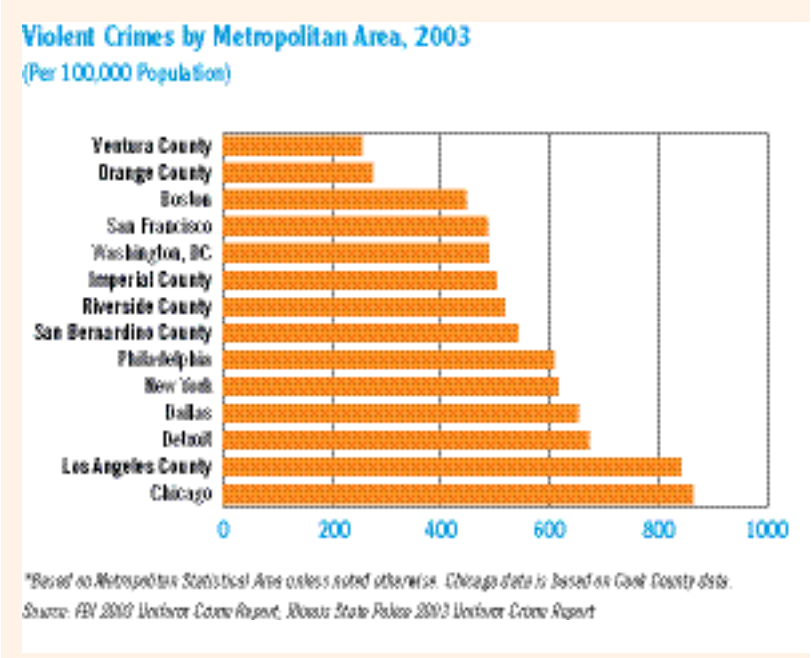


Among the 17 largest metropolitan regions in the nation, the SCAG region ranked last in terms of per capita income in 2003 and is expected to remain there in 2004 (after dropping from the 4th highest in 1970 to 7th highest in 1990, to 16th place in 2000).

Crime

Violent crime rates in Los Angeles County, though reduced by a half since 1990, were the second highest in large metropolitan areas in the nation following Chicago. Orange and Ventura Counties had substantially lower violent crime rates than most large metropolitan areas.

Figure 78



Transportation

Highway Congestion

In 2003, people traveling on the roadways in Los Angeles /Orange counties experienced a total of 93 hours of delay per person, the highest among the metropolitan areas in the nation. Nevertheless, between 1993 and 2003, the congestion level stayed almost unchanged in Los Angeles/Orange counties while increasing significantly in other large metropolitan areas. In the Inland Empire, travelers experienced a total of 55 hours of delay per person in 2003, the ninth highest among the metropolitan areas in the nation.

Figure 79

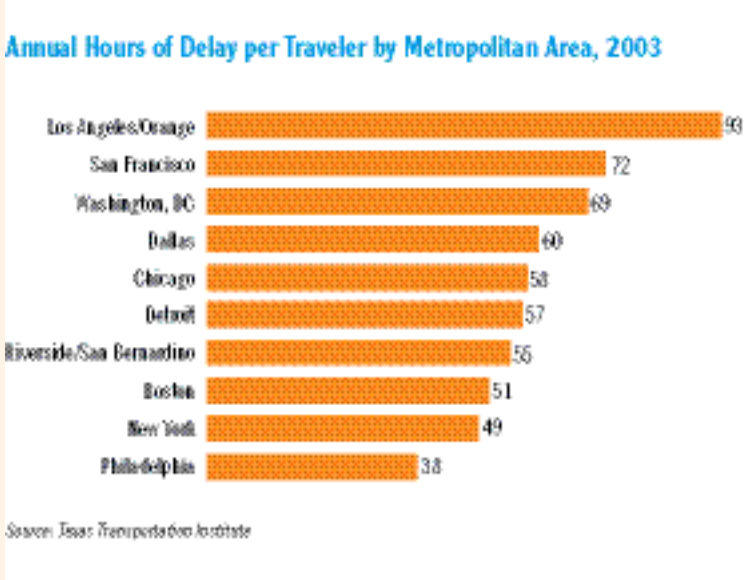
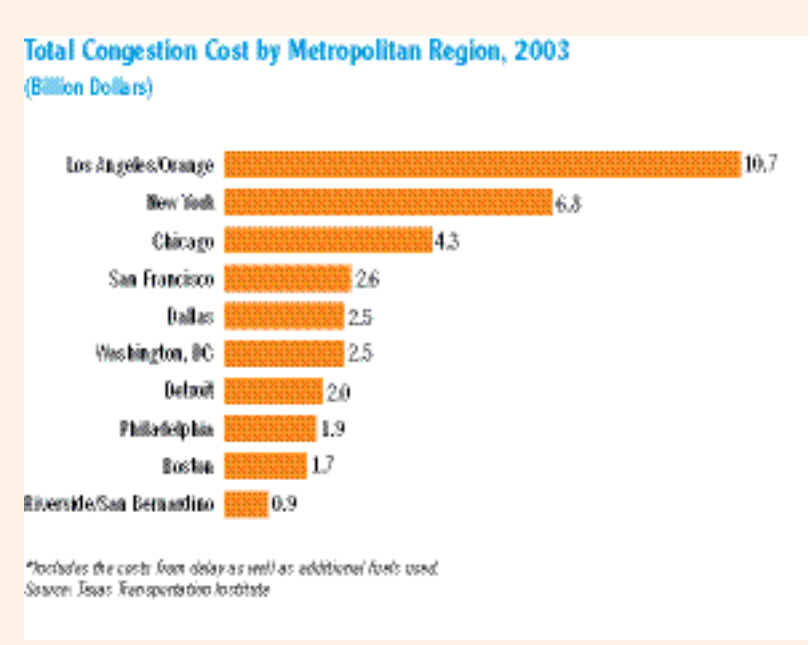


Figure 80



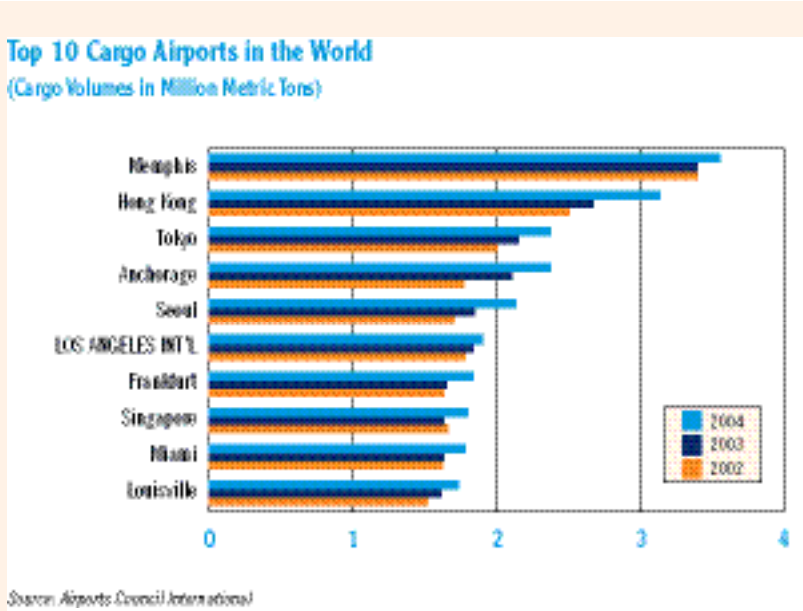
In 2003, total cost incurred due to congestion in the SCAG region was more than $12 billion, significantly higher than any other metropolitan area in the nation.

Airports

In 2004, among the ten largest airports in the world, LAX ranked 5th in passenger traffic behind Atlanta, Chicago, London and Tokyo. Between 2003 and 2004, the 5 largest U.S. airports all achieved significant increases in passenger traffic.

Figure 81

Figure 82



LAX was the 6th largest international cargo airport in 2004. In 2000, LAX ranked 3rd and has since been overtaken by Tokyo, Anchorage and Seoul in total cargo volume.

ENDNOTES

Executive Summary

1. Estimates of net domestic outmigration from the SCAG region during the 1990s have been revised from approximately 1.5 million to 1.2 million by the California Department of Finance.

2. For more information about the SCAG Compass 2% Strategy, please visit *www.scag.ca.gov* or *www.socalcompass.org*.

3. For more information about the Regional Strategy for Goods Movement as well as SCAG's other planning initiatives and activities, please visit *www.scag.ca.gov*.

Population

1 In addition to domestic migration, the other two components contributing to population growth are natural increase (births over deaths) and net foreign immigration. Between 1990 and 2004, natural increase and net foreign immigration had much smaller year-to-year variations than domestic migration. Hence, the variations in domestic migration largely determined the fluctuation of annual population growth in the region.

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6. Ibid

7. Ramakrishnan, S. Kathick and Hans P. Johnson. 2005. *Second Generation Immigrants in California,* Public Policy Institute of California.

8. U.S. Census Bureau, *2004 American Community Survey.*

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2. *Business Week,* August 8, 2005, p. 25.

3. Data on employment by sector discussed in this section are based on the *Labor Market Information* published by the California Employment Development Department.

4. Center for the Continuous Study of the California Economy, *California Economic Growth*, 2004 Edition, p. 8-8.

5. The 2004 average payroll per job information is based on data from the *Quarter Census of Employment and Wages*, California Employment Development Department.

6. Detroit's per capita personal income in 2003 reflected the large contribution of automakers to the pension funds of their workers to reduce their unfunded pension liability.

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11. Southern California Association of Governments. *The State of the Region 2004,* p. 35, Figure 23, available: *www.scag.ca.gov/publications*.
12. Southern California Association of Governments. *The State of the Region* 2004, p. 35-36, Figures 24 to 26.
13. U.S. Census Bureau. 2005. *Income, Poverty and Health Insurance Coverage in the United State: 2004*. Current Population Reports.
14. Ibid.
15. U.S. Census Bureau, *American Community Survey,* 2000 and 2004.
16. All taxable sales data in this section are from the California State Board of Equalization.
17. Data on direct international trade employment are from the *International Trade Trends and Impacts, the Los Angeles Region,* published by the Los Angeles Economic Development Corporation in 2005. Direct international trade employment includes activities related to moving commodities in and out of the customs district and does not include any manufacturing activities.
18. Los Angeles Economic Development Corporation. 2005. *International Trade Trends and Impacts, the Los Angeles Region*.

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2. U.S. Census Bureau. American Community Survey, 2004.
3. California Center for Border and Regional Economic Studies. 2004. *Imperial Valley Housing Market: A Preliminary Analysis*. San Diego State University – Imperial Valley Campus. Data is based on median home price.
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12. Southern California Association of Governments. 2003. *Year 2000 Post-Census Regional Travel Survey: Final Report of Survey Results*.

13. See note 11 above.

14. Southern California Association of Governments. 2003. *Draft RTP EIR* p.3.3-1.

15. U.S. Census Bureau, *American Community Survey*, 2000 and 2004.

16. See note 11 above.

17. U.S. Census Bureau.

18. Southern California Association of Governments. 2004. *Destination 2030*, p. 138.

19. U.S. Census Bureau.

20. *The Journal of Commerce*, July 11, 2005.

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4. Ibid.

5. Ibid.

6. Ibid.

7. California Air Resources Board.

8. South Coast Air Quality Management District.

9. Ibid.

10. SCAG staff estimates based on various water management plans in the region.

11. All beach closure data in this section are based on T*esting the Waters: A Guide to Water Quality at Vacation Beaches,* published by the Natural Resources Defense Council, 2005.

12. California Integrated Waste Management Board, available: http://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.

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3. California Department of Justice, *Hate Crimes in California, 2004.*

LIST OF MAPS

The Thomas Brothers Network was used in SCAG maps.

LIST OF FIGURES

ACKNOWLEDGEMENTS

SCAG Management

Mark Pisano, Executive Director
Jim Gosnell, Deputy Executive Director
Heather Copp, Chief Financial Officer
Karen Tachiki, Chief Counsel
Hasan Ikhrata, Director, Planning and Policy
Keith Killough, Director, Information Services
Huasha Liu, Manager, Data and Monitoring

Principal Author and Project Manager:

Ping Chang, Lead Regional Planner, Data and Monitoring

Graphics:

Carolyn Hart, Art Direction and Graphic Design
Robin Huber, Graphic Design

Maps:

Ping Wang, Senior GIS Analyst

Guest Essays:

Randall Lewis, Executive Vice President, Lewis Operating Corp.
Dr. John Husing, Vice President, Economics & Politics, Inc.

Data and Editing Assistance:

Michelle Qing Ye, former graduate intern, USC
Lee Hanson, Professor, California State University, San Bernardino
Joeseph Carreras, Lead Regional Planner
Cheryl Collier, Communications Supervisor
Lynn Harris, Manager, Community Development
Hsi-Hwa Hu, Senior Regional Planner
Sylvia Patsaouras, Manager, Environmental Planning
Frank Wen, Senior Economist

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Hon. Ronald O. Loveridge, Mayor, City of Riverside, Task Force Chair
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MISSION STATEMENT

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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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818 W. Seventh Street, 12th Floor • Los Angeles, CA 90017-3435 • 213.236.1800 • www.scag.ca.gov

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