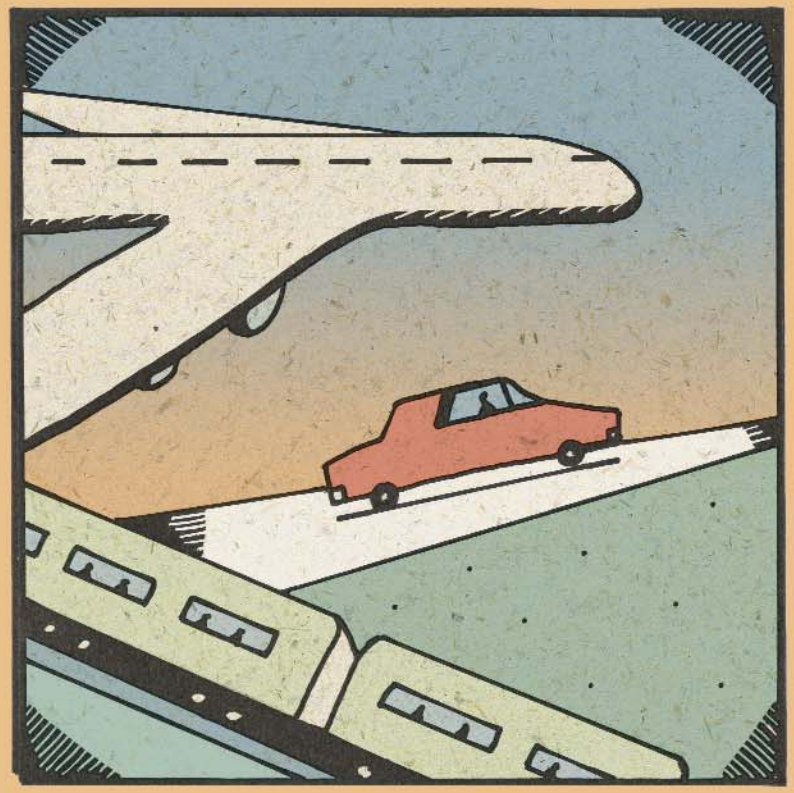

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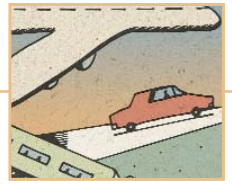


transportation

Transportation System

The region's transportation system includes a network of highways and arterials; a transit system of light, heavy, and commuter rail; fixed-route buses, rapid buses, shuttles, and other para-transit vehicles; an aviation system; a goods-movement network; and a non-motorized network which includes bikeways and pedestrian walkways. There are over 9,000 lane miles of freeway and high occupancy vehicle (HOV) facilities (8,906 and 582 miles respectively), and 32,600 miles of major and minor arterials. A number of toll roads have been added to the transportation system in recent years.

Ninety-nine percent of all trips occur on the region's highways and arterials. This highway and arterial system faces mounting congestion, which affects personal mobility, goods movement, and air quality. The average speed in a 24-hour period for highways and arterials is about 38 miles per hour, according to SCAG's transportation model. Average bi-directional freeway speed in the morning peak period is about 45 miles per hour, while it is less than 20 miles per hour in the congested direction.

(Note: SCAG's new model includes larger modeling areas and non-motorized trips, and the current data are not compatible to data based on the old model used in previous State of the Region reports.)

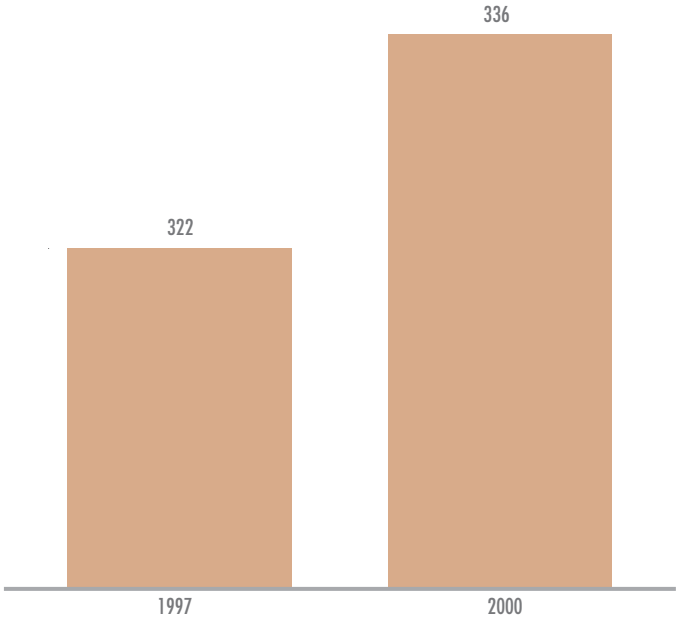
Vehicle Miles Traveled

>> The number of vehicle miles traveled is directly related to mobile source emissions, the main contributor to air quality pollutants in the region. Vehicle miles of travel are also important in determining the demand for infrastructure improvements. <<

Figure 18

Daily Vehicle Miles of Travel

(Millions)



Source: SCAG gathered data

The SCAG region, a non-attainment area for various pollutants including carbon monoxide, is required by the Environmental Protection Agency to monitor annual vehicle miles traveled (VMT). On highways, VMT measures the total miles traveled by all vehicles in the area for a specific time period. SCAG's transportation model tracks various performance indicators, including VMT, for its triennial Regional Transportation Plan. The vehicle miles traveled in the region in 2000 totaled 336 million compared to 322 million in 1997, resulting in a VMT increase of four percent.

Daily Person Trips

>> Daily person trips, both home-to-work and total trips, are major transportation indicators used in regional models to measure the amount of travel and forecast trends. <<

The total number of daily trips on the region's roadway network, including freeways, state highways, and arterials steadily increased during the 1980s. However, the region experienced a reduction in total trips in the early 1990s during the economic recession. As the economy improved later in the decade, the number of trips increased. There were over 56 million daily trips made in 2000 for any purpose, three million more trips than in 1997, which represents a six percent increase in total trips.

Figure 19

Daily Person Trips

(Millions)

Source: SCAG gathered data

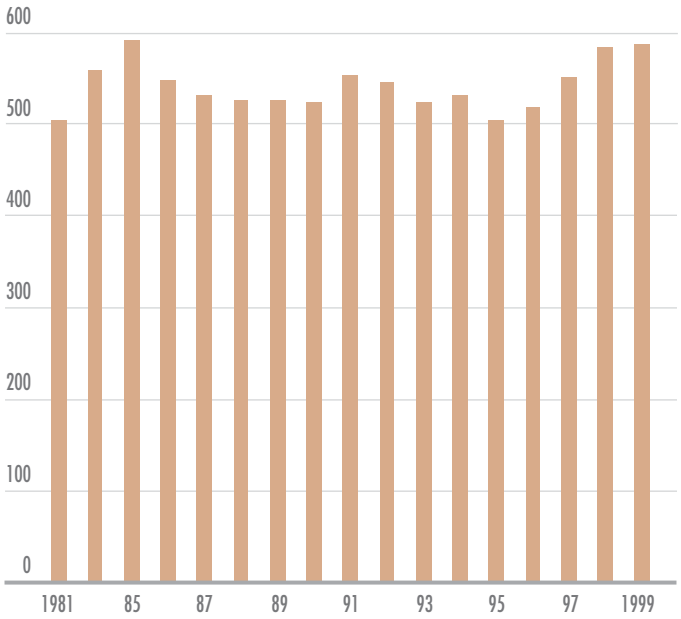
Transit

<< Reliable and safe transit service is essential for many residents to be able to participate in the economic, cultural, and social life of Southern California. Use of public transit decreases traffic congestion and air pollution. >>

Figure 20

Annual Unlinked Transit Trips – All Major Operators

(Millions)

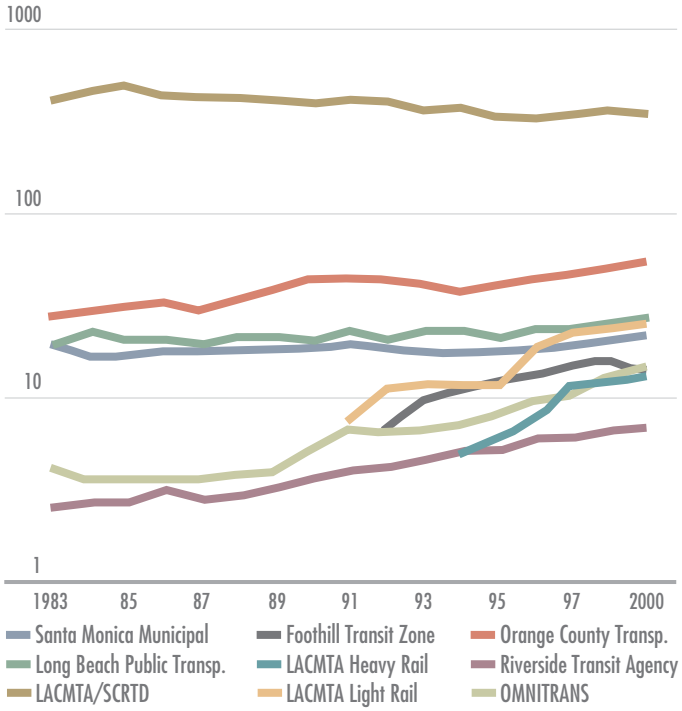


Source: SCAG gathered data

Figure 21

Annual Unlinked Transit Trips – Largest Operators

Log Scale (Millions)



Source: SCAG gathered data

Public investment in transit infrastructure results in substantial benefits to residents, including mobility for those lacking a vehicle or unable to drive, energy efficiency compared to automobile use on a per-person basis, and economic and environmental benefits. A dense, multi-purpose, pedestrian-oriented urban development serviced by public transit requires less investment in infrastructure than sprawl. The nation experienced increased transit ridership every year between 1995 and 2000, a 15 percent total growth during this period.

Public transit in the SCAG region is handled by local and express buses, urban rail centered in Los Angeles County, commuter rail spread throughout the region, and shuttles and circulators that feed activity centers and other transportation modes. Approximately 22 public agencies provide transit service, with 10 of these agencies accounting for 96 percent of all public bus transit service. Some private bus companies also provide regional service.

There has been an upward trend in ridership in recent years, in large part due to new urban rail system expansions. There were over 592 million transit trips in 1999 in the region, including 543 million unlinked bus trips, three million demand-response trips, and 46 million trips by rail. The light-rail and heavy-rail lines operated by the Los Angeles County Metropolitan Transportation Authority (LACMTA) carried over 46 million passengers. Metrolink, a commuter rail service linking Southern California from Ventura County to San Diego County, had a total ridership of almost seven million.

Airports

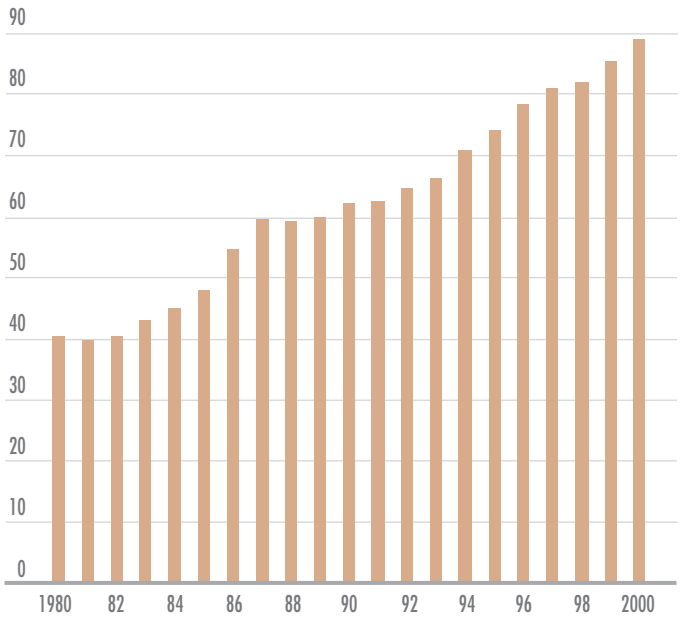
There are 65 airports in the region, including six commercial service, 45 general aviation, 11 existing or recently closed military air bases, two limited commercial service, and one joint-use facility. The majority of passenger air traffic is serviced by six airports: Burbank, Long Beach and Los Angeles International (LAX) in Los Angeles County; John Wayne in Orange County; and Ontario International and Palm Springs in the Inland Empire. Limited commercial service exists at airports in Ventura County and Imperial County.

>> The ability to serve national and international interests is important to the region's economy. <<

Figure 22

Air Passenger Traffic in Major Airports

(Millions)

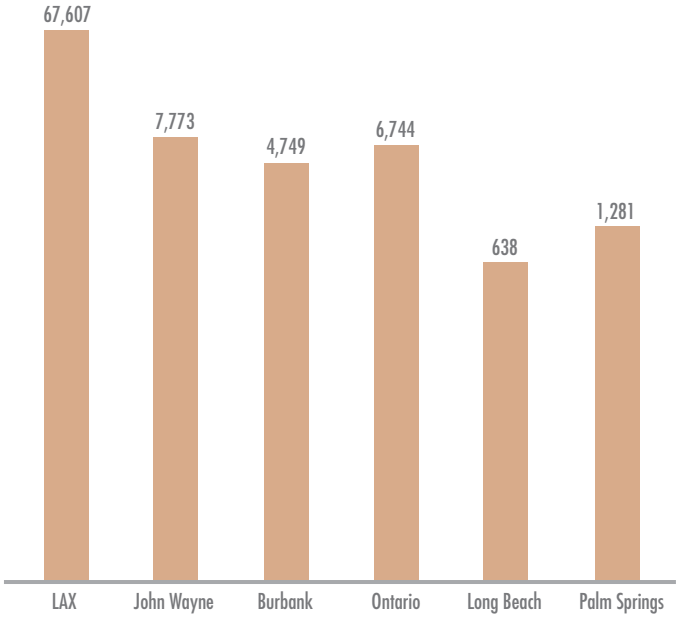


Source: SCAG gathered data

Figure 23

Air Passenger Traffic by Airport, 2000

Log Scale (000)

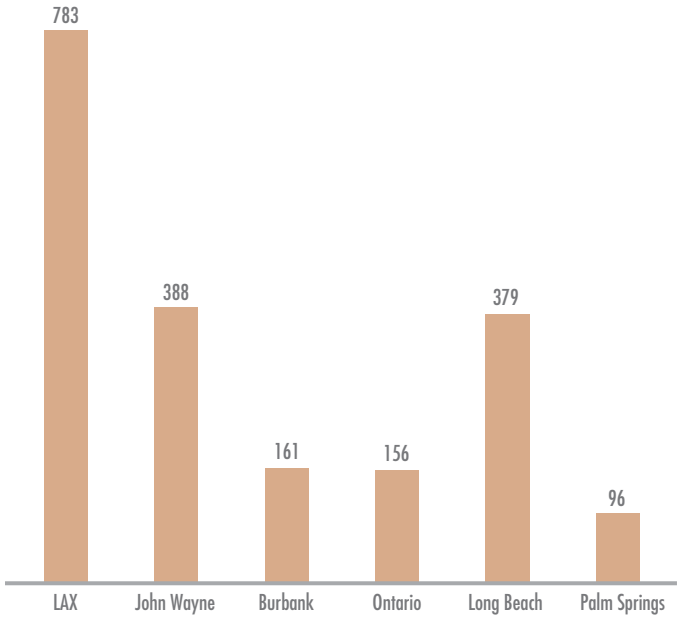


Source: SCAG gathered data

Figure 24

Aircraft Operations by Airport, 2000

Departures and Arrivals (000)



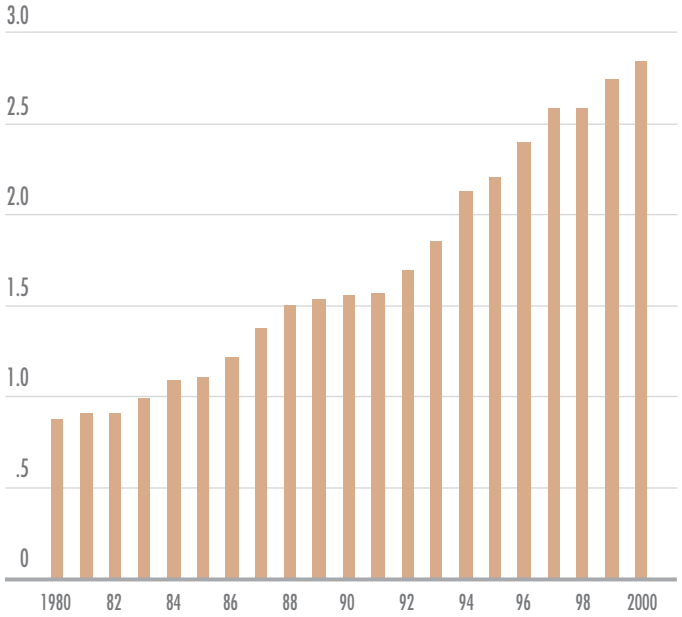
Source: SCAG gathered data

The total passengers served by Southern California's airports make this region the busiest in the country. Airports in the region reported record passenger and cargo levels during 2000. The six major airports reported 88.8 million passengers and 2.9 million tons of cargo last year. Although the number of total operations in the major airports decreased by 10 percent from the previous year, passenger volume increased by 4.2 percent and cargo volume by 3.9 percent. Every one of the six major airports in the region, except Long Beach Airport, recorded a higher passenger volume in 1999 than the previous year.

Figure 25

Air Cargo in the Six Largest Airports

(Million Tons)



Source: SCAG gathered data

In an economy driven increasingly by global trade and investment, just-in-time production and distribution, and more frequent air shipping, Southern California's leading industries rely on LAX, which is the world's third busiest airport. In 2000 LAX had an all-time high of 67.6 million passengers and 2.24 million tons of cargo, a 5.8 percent increase in both categories over 1999. Ontario International Airport, serving Riverside and San Bernardino counties in the Inland Empire, is California's sixth busiest airport. Ontario experienced 6.74 million passengers and .5 million tons of cargo, increases of 2.7 percent and 4.5 percent respectively over 1999. Ontario has the capacity to handle 10 million annual passengers, and the Los Angeles World Airports (which owns and operates both LAX and Ontario) has an agreement with the airlines to build another terminal to increase Ontario's capacity to 12 to 15 million annual passengers.

Air cargo is the fastest growing method of transporting goods in and out of the region. LAX and Ontario International are the major cargo-hauling airports, handling about 96 percent of all regional air cargo. LAX alone accounts for 78 percent of that traffic. The impact on ground transportation of freight movement to and from the airport is significant, but possible conversion of several military airports to commercial use would spread this burden more evenly.

Van Nuys Airport, ranked as the busiest general aviation airport in the nation, reported a 19 percent decrease in operations. The decline is due to a change in the Federal Aviation Administration's counting methodology, whereby flights crossing over Van Nuys Airport's airspace to land at Burbank Airport are no longer counted as a Van Nuys operation.

Ports

Southern California is the nation's most important port region, with three major seaports in the SCAG region providing a major link between the US and the Pacific Rim countries: Port Hueneme in Ventura County, the Port of Long Beach, and the Port of Los Angeles. In 2000, the Ports of Long Beach and Los Angeles broke their previous records for the total amount of cargo value handled (a combined $197 billion), and for the number of 20-foot long container units (nine million). The port of Long Beach ranks first in the nation in container traffic, with the Port of Los Angeles a close second. The two ports rank sixth and eighth among world ports in container traffic handled.

The SCAG region is also served by two main line railroads, the Burlington Northern and Santa Fe Railway Co. and the Union Pacific Railroad, which link Southern California with other regions in the US, Mexico, and Canada and provide freight service within California. In addition, there are three short lines or switching railroads serving the region, the Pacific Harbor Line (which handles all rail coordination in the Ports of Los Angeles and Long Beach), the Los Angeles Junction Railway Company (which provides switching service in the Vernon area for the two main line railroads), and the Ventura County Railroad (which serves the Port of Hueneme).

Advanced Transportation Technologies

Intelligent Transportation System (ITS) technologies are well established in the SCAG region. Over 750 center-line miles of freeway system in the urbanized portion of the region have full traffic detection capabilities and coverage with over 300 video cameras. Changeable message signs cover an extensive portion of the urban freeway system, with the ability to give advanced traveler information on traffic flow and emergencies. Most of the current traffic detection, California Highway Patrol incident data, and a portion of the changeable message signs are available on the Internet, handheld computers, pagers, and other portable communications devices. Projects such as the Traveler Advisory News Network (TANN) disseminate data in a variety of formats to Information Service Providers.

Approximately 3,500 arterial intersections in the region have fully interactive computer-based traffic signal controls. Eight cities, including the City of Los Angeles, operate Transportation Management Centers, and Intelligent Transportation System integration is actively under development in at least 25 other cities through a variety of smart streets projects in the counties of Los Angeles, Orange, Riverside, San Bernardino, and Ventura. Local ITS infrastructure is supported by over 14,000 loops and other detection devices, hundreds of video cameras, and a growing number of changeable message signs at critical locations such as major arterials and special events to provide motorist information.

Progress is being made in the effort to transition vehicle fleets to alternative fuel vehicles (AFVs). A survey conducted by The Southern California Economic Partnership to collect information on the level of AFV use by both public and private entities, revealed that companies, including transit agencies, city agencies, school districts, colleges, and other

services, are either currently operating or are planning to operate AFV fleets. While the survey was limited to the 75 members of the SCAG Clean Cities Coalition, the responses did yield promising results. Survey results reveal that 100 percent of the transit and school buses acquired in 2000 by the survey respondents use compressed natural gas (CNG), as well as 100 percent of the taxis and park service vehicles and nearly all of the shuttle buses, police cars and delivery vehicles. (See Table 10.)

Table 10

New Alternative Fuel Vehicles in 2000 by Vehicle Type

Vehicle Type	Total	Percent of Total	Percent by Fuel Type CNG	Electric
Transit Buses	61	32%	100%	0%
Delivery Vehicles	37	20%	78%	22%
Shuttle Buses	34	18%	82%	0%
School Buses	16	11%	100%	0%
Taxis	14	8%	100%	0%
Airport Vehicles	11	5%	0%	0%
Police Cars	6	3%	84%	0%
Park Service	5	3%	100%	0%
Total	**184**	**100%**		

Source: 2001 SCAG Alternative Fuel Survey