

# The 60 Mile Circle: Reconnecting our Neighborhoods to the Region

Graphic from "Portrait for Progress: The Economy of Los Angeles County and the Sixty-Mile Circle Region"  
(Security Pacific Corporation, 1991)



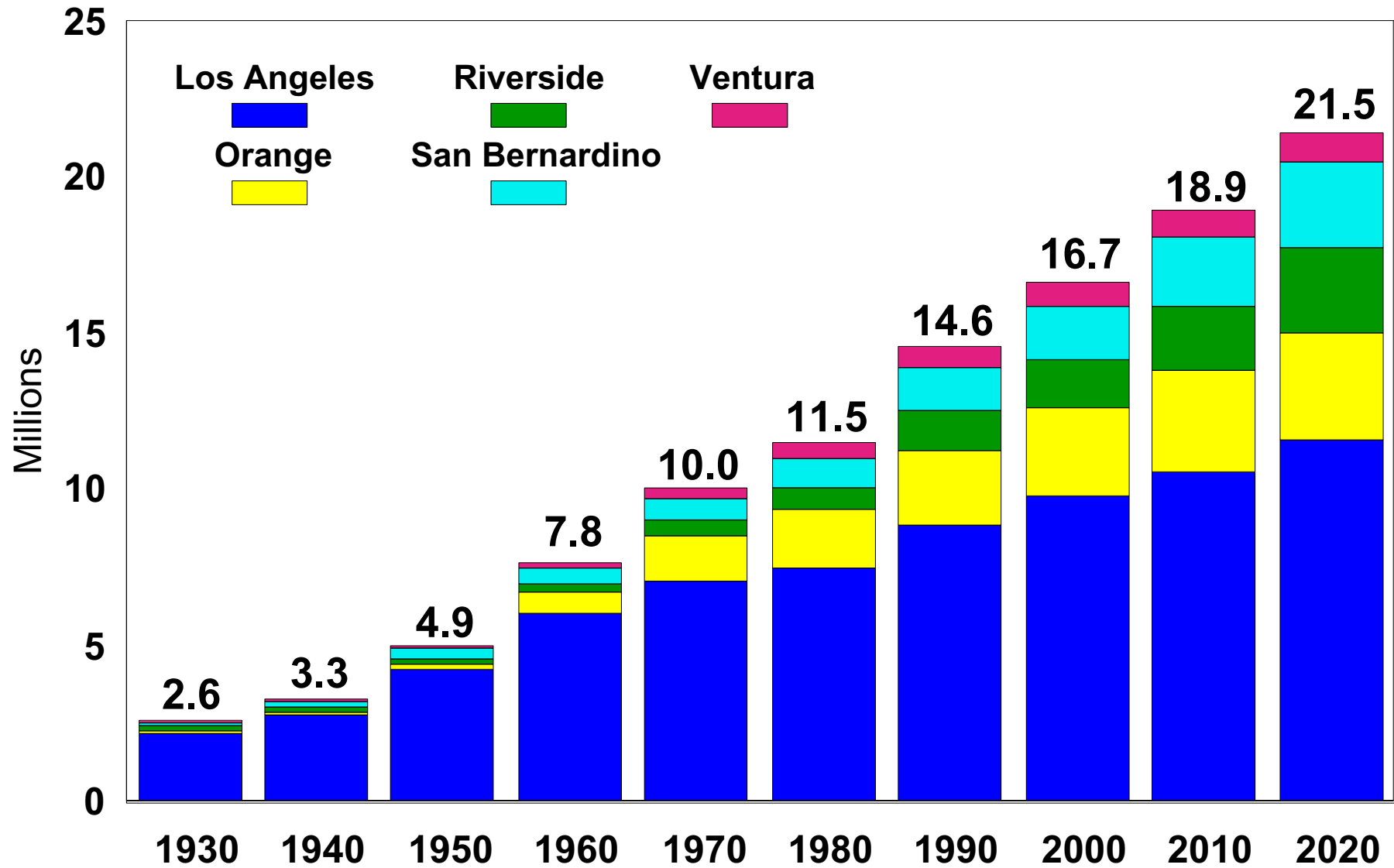
**Center of Economic Development**

# The 60 Mile Circle Region

- More people live here *than in Florida*
- Our manufacturing base is *larger than Michigan's*
- Our GDP is the *10<sup>th</sup> largest in the world*
- We are a *top tourist destination*
- We comprise one of the world's most *important consumer markets*



# Growth Forecasts: Population



Source: California Department of Finance

**Population  
Increase  
(2001)**

**1<sup>st</sup> .....CA**

2<sup>nd</sup> .....TX

3<sup>rd</sup> .....FL

4<sup>th</sup> .....GA

5<sup>th</sup> .....AZ

**Rate of Natural  
Increase  
(2001)**

1<sup>st</sup> .....UT

2<sup>nd</sup> .....AK

3<sup>rd</sup> .....TX

**4<sup>th</sup> .....CA**

5<sup>th</sup> .....HI

**Rate of Net Int'l  
Migration  
(2001)**

**1<sup>st</sup> .....CA**

2<sup>nd</sup> .....NY

3<sup>rd</sup> .....NV

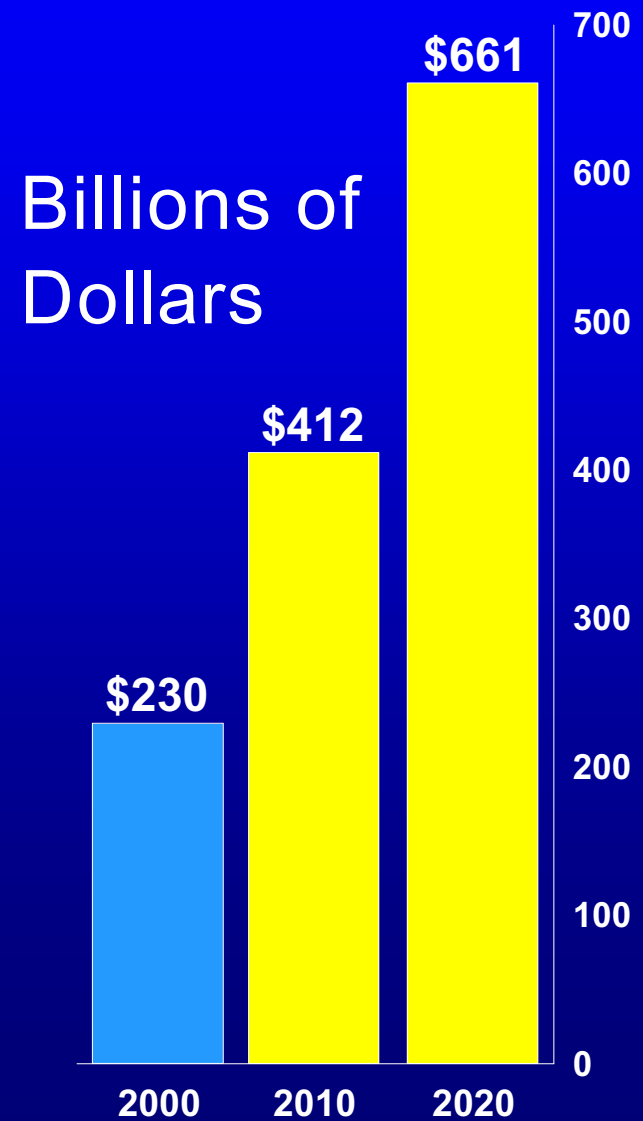
4<sup>th</sup> .....FL

5<sup>th</sup> .....NJ

# International Trade Forecast for Southern California (LA Customs District)



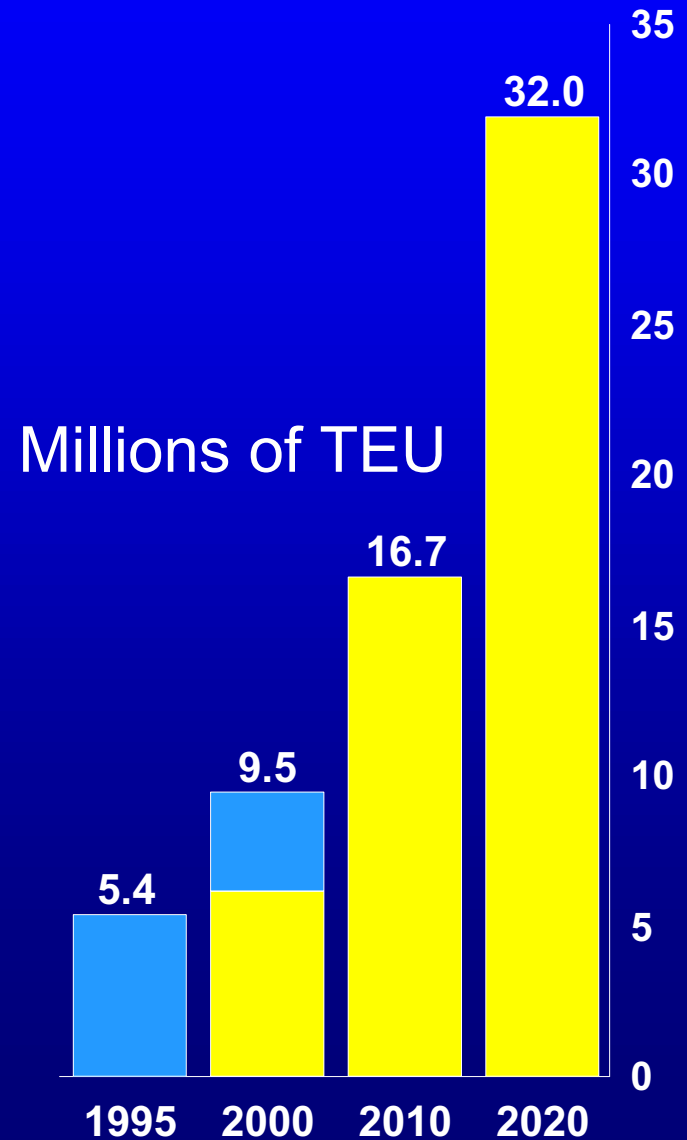
Source: LAEDC



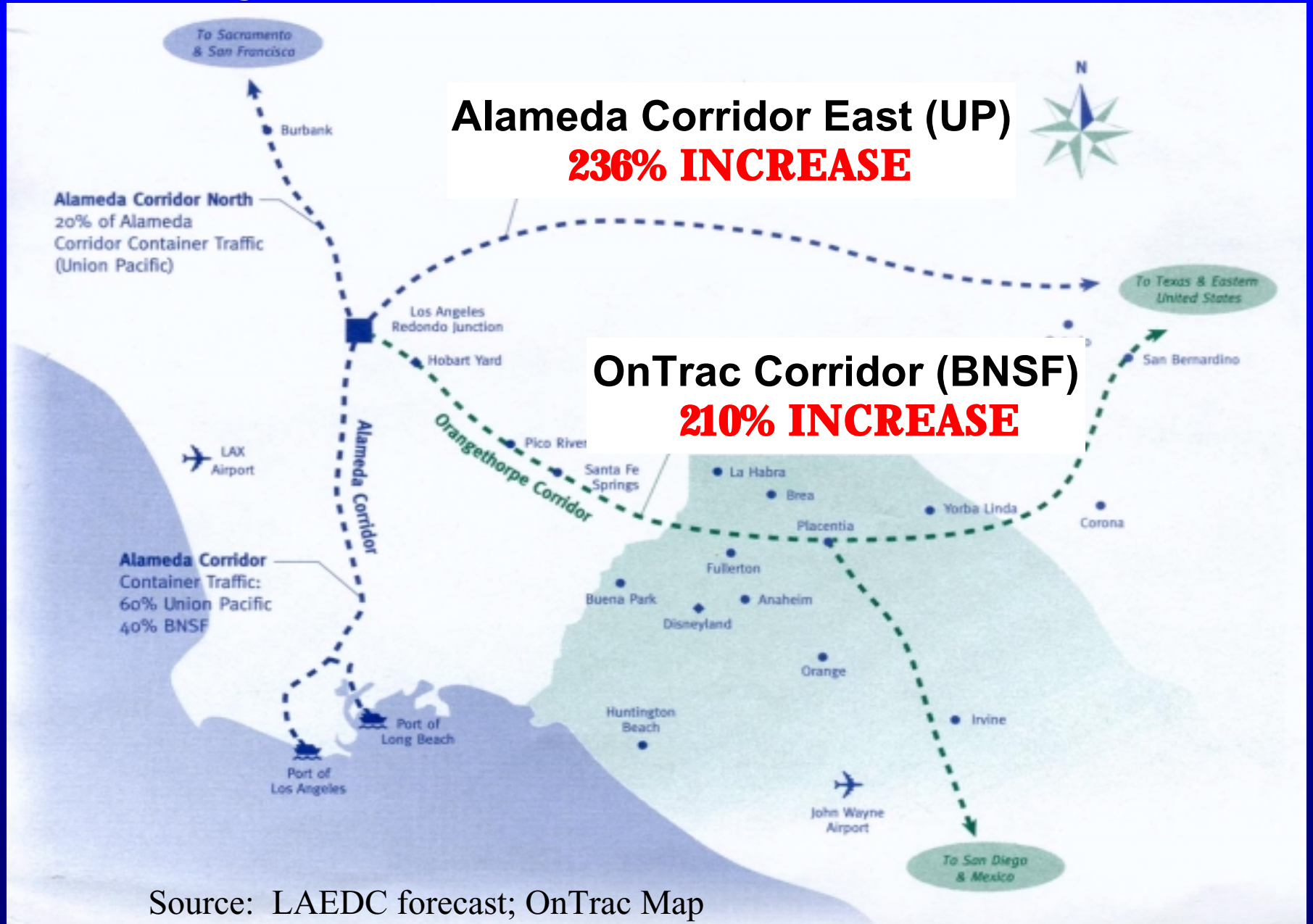
# Container Traffic Forecast for the Ports of Los Angeles and Long Beach



Sources: LAEDC, ACTA, World Port LA, Port of Long Beach



# Freight Rail Traffic Forecast, 2000-2025



# Heavy Truck Traffic Forecast, 2000-2020



Overall truck traffic will rise 65%, with greater increases on heavily used routes such as SR-60 and I-710.

Source: Southern California Association of Governments



# Air Cargo Forecast for Southern California

## World's Busiest Cargo Airports

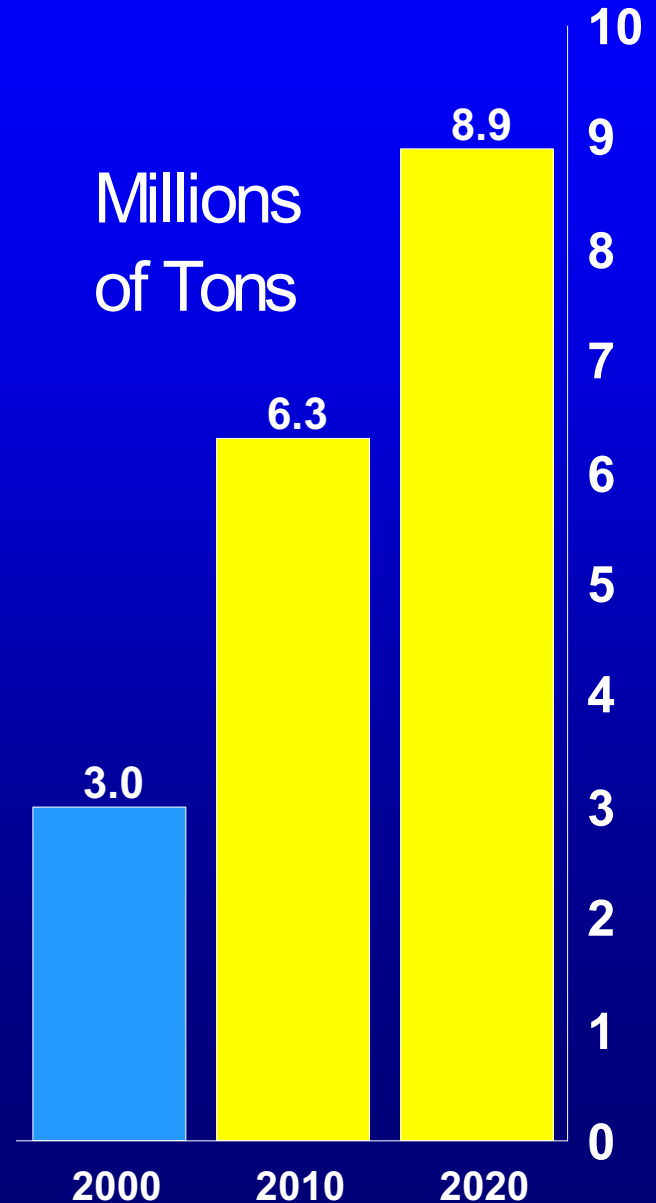
**MEMPHIS (MEM)**

**HONG KONG (HKG)**

**LOS ANGELES (LAX)**



Millions  
of Tons

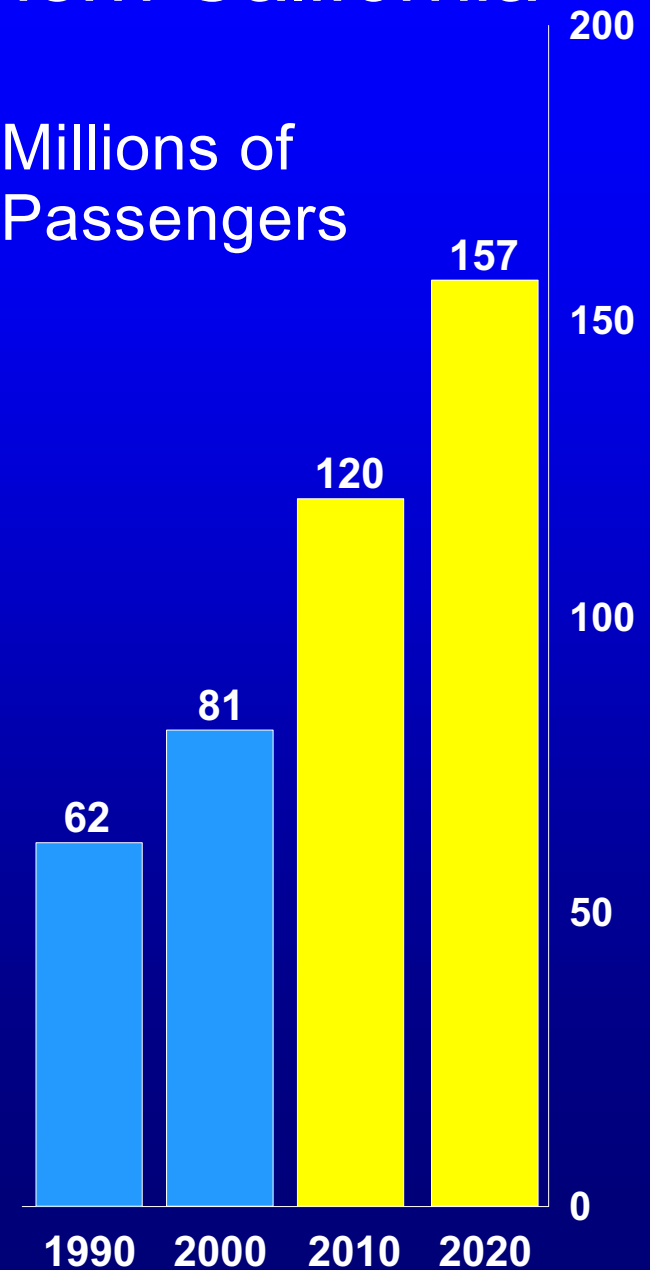


Source: Southern California Association of Governments;  
ACI Traffic Data

# Air Passenger Traffic in Southern California



Millions of  
Passengers



Source: Southern California Association of Governments;  
ACI Traffic Data



Photo: Los Angeles World Airports

# Quality of Life Implications:

## 1) *Mobility may suffer*

- More cars will make getting around on the freeways even more difficult.
- More trucks will also add to the congestion.
- We can expect longer commutes and hindered goods movement.



# Quality of Life Implications:

## 2) *Scarce workforce housing*

- Not enough houses are being built.
- There is an imbalance in the location of jobs and houses.
- Scarcity in housing may exacerbate existing trends in urban sprawl, longer commute patterns, clogged freeways and worsening air.



## Quality of Life Implications:

### 3) *Competition for Land Use*

- Retail, manufacturing, educational and residential uses compete for space
- Green space will be under more pressure just when it is needed most
- Densification becomes a necessary planning component
- Land reuse a priority – 50% of our industrial facilities are obsolete



# Quality of Life Implications:

## 4) *Air and Water Quality at Risk*



- Past improvements in air quality are threatened by sheer volume of additional cars.

- Solid waste and sewage disposal will only get more difficult.

- Water resources will have to be carefully managed.



# Policy Challenges

## 1) Regional Coordination and Decision-Making

- The sheer number of stakeholders complicates regional transportation solutions in Southern California.

## The Alameda Corridor

# *Solutions:*

## **Joint Powers Authorities (JPA)**

The Alameda Corridor was built by the Alameda Corridor Transportation Authority.

Use of this JPA helped public and private partners resolve jurisdictional issues.

Photo: Alameda Corridor Transportation Authority



# Policy Challenges

## 2) Burden Sharing and Fairness

- Major transportation infrastructure projects confer diffuse benefits yet impose concentrated costs.

# *Solutions:*

## Regional Airport System



Source: MasterPlan LAX (Los Angeles World Airports)

# Policy Challenges

## 3) Funding

- Existing funding mechanisms are insufficient to finance future transportation infrastructure needs

# *Solutions:*



Photo: James Tourtellotte

## **Innovative Financing**

There is not enough money available from traditional sources to pay for needed transportation projects, so we're going to have to get creative.

One possibility would invest an increment of the increase in customs revenues to pay for improvements to the nation's trade infrastructure.

# Policy Challenges

## 4) Efficient Use of Existing Infrastructure

- Southern California will have to make the most efficient use possible of existing infrastructure.

# *Solutions:*

## Threats?



Proposed legislation would fine terminal operators for long truck lines outside their gates.

# *Solutions:*

## or Bribes?



Photo: Los Angeles Metropolitan Transportation Authority

Metro Rapid buses offer commuters a quicker, more convenient alternative to cars than standard buses.

# Policy Challenges

## 5) Cost-Effective Choices

- Southern California cannot afford costly white-elephant projects. Every transportation dollar investment must count.



# *Solutions:*

## Near-Dock Rail



Photo: BNSF Intermodal Facilities Guide

New near-dock rail intermodal facilities adjacent to ports could eliminate almost 3,000 truck trips daily from I-710.

# Policy Challenges

## 6) Attitude Adjustment

- Planners and the public alike need to change the way they look at transportation issues.

# *Solutions*

## Realizing We 'Я' the Problem *and* the Solution



Photo: Elizabeth Lubin

We can't just "Ban the trucks" ... unless we are willing to give up our jobs and stop being consumers. Our challenge is to learn to think locally, plan regionally and act globally.

The John Randolph **Haynes**  
and Dora Haynes **Foundation**

*supporting social science research for Los Angeles*

*Research for the 60-Mile Circle was  
generously supported by a grant from  
the Haynes Foundation.*

CELEBRATING **75** YEARS



*Los Angeles County  
Economic Development  
Corporation*

**This 60-Mile Circle presentation was  
created and written by Gregory Freeman.**

**Download the presentation and  
accompanying text at [www.laedc.org](http://www.laedc.org)**

# 60-Mile Circle Text\*

## Introduction

<Text for Slide 1> The Los Angeles County Economic Development Corporation *60-Mile Circle* project resurrects a Security Pacific Corporation concept from a publication that last appeared in 1991. The notion is simple: to understand what is happening in Los Angeles, one needs to look at the entire region that falls within a circle with a 60-mile radius, centered on downtown Los Angeles. We have updated the concept slightly to reflect the broadening scope of the greater Los Angeles economy, and take as our unit of analysis the five-county region comprised of Los Angeles, Orange, Riverside, San Bernardino and Ventura Counties.

This report consists of four sections. The first introduces the 60-Mile Circle Region. The second highlights two key trends that will shape the future of the region: population and trade growth. The third section summarizes the likely implications for our quality of life. The fourth describes the policy challenges we face in preparing for the growth described in section two, and points to some exemplary projects that suggest the path toward possible solutions.

## Part I: The 60-Mile Circle Region

<Text for Slide 2> Few people, it seems, are actually from Southern California, but even people who have lived here their entire lives are often astonished when confronted with the enormity of the region. Yet, Southern California operates on a scale normally associated with states and even countries. More people, for example, live here than in all of Florida, currently the fourth most populous state in the union. At 17 million and growing, our region is larger than all other states except California, Texas and New York.

Despite its reputation for making movies and little else, Southern California employs almost a million people in manufacturing. The County of Los Angeles alone is the second largest manufacturing center (by employment) in the United States, trailing only Chicago. Powered by core strengths in aircraft, biomedical technology, business services, food, furniture, metal fabrication, motion pictures and television production, textiles and apparel and tourism, the region produces nearly \$600 billion in goods and services annually. This places our regional gross domestic product tenth in the world among countries, just behind Canada and Mexico, tied with Spain, and ahead of Brazil, India, South Korea and the Netherlands.

Home to almost 200 different nationalities and cultures, Southern California is one of the most diverse places on earth. The region is one of the top tourist destinations in the

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\* Slide numbers refer to the LAEDC *60-Mile Circle* presentation, available for download at [www.laedc.org](http://www.laedc.org). Sources for some of the figures presented in the text are noted in the presentation. Comments are welcome.

country, and thanks to our combination of wealth, size and reputation for trend setting, comprises one of the most important consumer markets.

## **Part II: Regional Trends**

**Population Growth:** <Text for Slides 3 & 4> The five-county Southern California region will add more than 5 million people, 2000-2020. This is roughly equivalent to the combined populations of the Cities of Los Angeles *and* San Diego, or twice the population of Chicago. Southern California is growing faster than much of the rest of the nation, having added about 2.5 million people during the 1990s.

Much of the growth will be internally generated: In addition to having the largest population base among the 50 states, California also has one of the highest rates of natural increase (births minus deaths) as a share of total population. Indeed, California trails only Utah, Alaska and Texas in rate of natural increase. Given the size of the state's population, California's presence on this list among small population states Utah and Alaska is particularly astonishing. Internal population growth will be supplemented by immigration. California has the highest rate of net international migration of any state, helping make Los Angeles a modern Ellis Island.

Two shocking implications of this growth: First, at current rates of automobile ownership, five million more people will add about 2.7 million private vehicles to our already congested freeways. Second, just to maintain the status quo, population growth of more than five million people will require that we add twice the infrastructure and services that exist in present-day Chicago. For every school in Chicago we will need to build two.

**Trade Growth:** <Text for Slide 5>Southern California has emerged as a leading global trade and transshipment center because of its massive internal market, heavy investment in world-class trade infrastructure, and its new role as the distribution center for U.S.-Pacific Rim trade. The massive internal market draws trade both for final consumption and for inputs in valued-added products ranging from shirts that are labeled and placed on hangers to parts that are used in manufacturing. These two factors help to pull in still more trade, and drive up the percentage of international cargo that makes its first stop in Southern California. With so much cargo destined here in the first place, it makes sense for shippers to use the region as a distribution center for the rest of the United States. This role is confirmed by data for the Los Angeles Customs District, which recorded almost one-quarter trillion (\$212.5 billion) dollars in trade for year 2000.

The \$212.5 billion in trade is an *underestimate* since it is merchandise trade only, therefore excluding some of our core strengths such as motion pictures, tourism, engineering and financial services. The number is also low because it is based on port of entry only, thereby excluding our NAFTA trade with Canada and Mexico, which travels primarily by truck and rail and thus is counted in border areas such as San Diego, Laredo and Detroit. Even still, the value merchandise trade at the L.A. Customs District is

expected to almost triple to \$661 billion, 2000-2020. The next few paragraphs describe the growth trends for the region's ports, railroads, freeways and airports.

**Ports:** <Text for Slide 6>The Ports of Los Angeles and Long Beach are the busiest in the nation, together handling one-third of all container traffic in the United States and an astonishing 65 percent of all container traffic on the West Coast. With a combined container throughput of 9.5 million Twenty-Foot Equivalent Units (TEU) in 2000, they were the third busiest container facility on the planet, behind only Singapore and Hong Kong.

The long-term trend in container traffic at the ports has been steady growth, though the pace slowed in 2001 reflecting the recession. As recently as 1998, the Alameda Corridor Transportation Authority (ACTA) conservatively forecast year 2000 container traffic of 5.6 million TEUs (twenty-foot equivalent units). The actual total was 9.5 million TEUs; no one, including the ports, anticipated that container traffic would grow so fast. Container traffic is now expected to almost double by 2010, and then double again to 32 million TEUs by 2025. For perspective, consider that a single large ship typically carries 6,000 TEUs. That is enough containers, placed end to end, to build a wall of boxes more than twenty miles long. The forecast growth may seem incredible, but if anything, it is probably conservative. Indeed, for the past ten years, traffic levels have consistently surpassed previous estimates.

**Railroads:** <Text for Slide 7>Driven by the rising tide of trade flowing through the ports, rail traffic is expected to rise dramatically over the next twenty-five years. The newly constructed Alameda Corridor – a 20-mile, high-speed, completely grade-separated train route connecting the ports and the rail yards just east of downtown Los Angeles – will handle much of the increase. East of the rail yards, however, locally generated freight will combine with the international trade.

Two rail corridors connect the rail yards with the transcontinental rail network: the Alameda Corridor East (ACE), via the Union Pacific tracks through the San Gabriel Valley into San Bernardino County, and the On-Trac Corridor, which accommodates the Burlington Northern Santa Fe line through northern Orange County into Riverside County. Freight and commuter trains share the rails along both corridors. On-Trac train traffic will rise 210 percent, 2000-2025, while ACE train traffic will increase 236 percent over the same period. Rail traffic on these routes, at more than one train every ten minutes, will easily surpass the capacity of the current system barring major improvements. Intermodal lift capacity in the region – the facilities that transfer containers between trucks and trains – is similarly constrained. Intermodal lift capacity is forecast to exceed demand within 10 years.

**Freeways:** <Text for Slide 8>The number of vehicle miles traveled in Southern California has been rising faster than population growth. “Rush hour” has become an oxymoron in Los Angeles. The peak travel period has crept up to six hours per day, during which the average travel speed drops to 35 miles per hour. The Texas Transportation Institute annually surveys road congestion in metropolitan areas across the

U.S., and Los Angeles has had the worst congestion every year since 1982. The latest survey reveals 85% of all lane miles are congested, with almost half classified as “extremely congested.” As a result, on a per capita basis, we waste more hours (56) annually stuck in traffic than anywhere else in the country.

Some freeways handle up to 40,000 trucks daily, and with heavy truck traffic expected to rise 65 percent, 1995-2020, they may soon handle up to 80,000 truck trips daily. Owing to their size and operating characteristics, trucks use a much greater share of freeway capacity than their numbers might suggest. Already, heavy trucks use 45 to 60 percent of capacity on certain freeways, most notably the I-710. Since trucks move 81 percent of all tonnage originating in Southern California (according to the 1997 Commodity Flow Survey), increasing freight flows will mean more trucks on the freeways.

**Airports:** <Text for Slides 9 & 10>Southern California’s economy is increasingly dependent on airports. Many of the region’s leading industries – from tourism to manufacturing to biotechnology – depend on air travel and air cargo. Even businesses that don’t rely on air cargo directly benefit from the enhanced business connections and opportunities made possible by direct flights to and from our key overseas trading partners. The region’s exports increasingly travel by plane. In 1995, 54 percent of regionally produced exports (by value) were shipped by air, and the percentage is higher today. Indeed, LAX handles more exports by dollar value each year than the Ports of Los Angeles and Long Beach combined.

LAX is already extremely busy. In 2000, LAX was the third busiest passenger airport in the world, after Atlanta (ATL) and Chicago (ORD). Similarly, LAX was the third busiest cargo airport in the world behind only FedEx-hub Memphis (MEM) and Hong Kong (HKG). Although air demand dipped following the September 11, 2001 tragedy, the impact on long-term air travel trends is expected to be slight. Air traffic demand has been skyrocketing, outpacing population growth. Estimates from the Southern California Association of Governments (SCAG) suggest air passenger demand will almost double from 82 million annual passengers (MAP) in 1998 to 157 MAP in 2020. Air cargo volume is expected to triple from 2.8 million annual tons in 1999 to 8.9 million tons in 2020. Preliminary, post-9/11 revisions suggest these levels will be reached two to three years later than previously estimated, with passenger growth delayed more than cargo.

As a whole, the region faces a capacity crisis, particularly now that it seems certain that an airport will not be built at El Toro. The capacity crisis is not just airside, there is a looming ground access crisis as well. The problem is particularly acute at LAX, which as the world’s number one origin and destination airport, sees most passengers beginning or ending their journey in Los Angeles. (Many of the passengers at Atlanta or Chicago, in contrast, merely change planes without ever leaving the airport.) Ground access times for passengers and cargo will likely double by 2020, with the proposed Manchester check-in facility at LAX threatening to increase delays and passenger inconvenience even further.



### **Part III: Quality of Life Implications**

**Mobility May Suffer:** <Text for Slide 11>Traffic congestion in Southern California is among the worst in the nation, and will get even worse before it gets better. Most of the area's freeways are at (or beyond) capacity during peak periods, and Los Angeles has four of the ten most congested freeway interchanges in the country. In 1997 Southern California drivers racked up 357 million vehicle miles *every day*. Population trends will add another 2.7 million cars over the next twenty years, and trucks exacerbate the problem. On freeways such as the I-710 and SR-60, 30 to 60 percent of capacity is used by trucks, and daily truck vehicle miles traveled are expected to jump from approximately 38 million miles in 2000 to 50 million miles as early as 2010.

Congestion is a problem across all modes. The region will struggle to accommodate future freight operations; current intermodal facilities at local ports and rail yards will reach capacity within 10 year; and without major investments, the rail lines east of downtown Los Angeles will be congested as well. These problems will be exacerbated by congestion on the roads. Air cargo facilities, for example, rely on trucks to feed shipments to the airport and deliver airfreight to its final destination, yet traffic is terribly congested in the vicinity of LAX. Congestion threatens both our quality of life and our regional competitiveness.

**Scarce Workforce Housing:** <Text for Slide 12>Population growth will have enormous repercussions on housing. There are not enough houses now, and housing starts are not keeping up with population growth. There is less land available for mega-housing developments of thousands of units each, and cities are reluctant to add new housing when it will likely cost more in services than it will generate in taxes. "Move-up" housing is in particularly short supply, and homeownership rates are lower in California than in the rest of the country. This is reflected in the low Housing Affordability Index scores – the percentage of households that can afford to purchase a median priced home – from around the state.

There will also be a growing mismatch between the available houses and jobs. Orange County will have more job growth than housing growth; the Inland Empire will add more people than jobs. Estimates from the Southern California Association of Governments suggest Orange County will see a 24 percent increase in jobs, 2000-2020, but only a 7 percent increase in population. The Inland Empire will see its job growth (30%) outstripped by population growth of 42 percent. In the City of Los Angeles jobs will be up 11 percent while the population will increase 20 percent. In the rest of L.A. County, jobs will be up 29 percent while the population will grow 27 percent.

**Competition for Land Use:** <Text for Slide 13>The region is gradually running out of developable land. Outside of North County, Los Angeles County is basically built out. Retail, manufacturing, educational and residential uses all compete for any available space. The region's future competition for land use is illustrated by the Los Angeles Unified School District, the region's single largest developer. The pressing need for new

schools and the lack of space to build them, coupled with the LAUSD's ability to condemn land makes land use planning difficult.

Looming challenges include land reuse, densification and green space. With more than 50 percent of Los Angeles County's industrial facilities obsolete – primarily because they are old and often because they are inaccessible to newer, larger trucks – land reuse must be a priority. Reuse is complicated by brownfield (contamination) issues, and state tax laws which create a bias among cities leading them to favor retail over industrial (re)development. Densification will be given a powerful boost by a burgeoning population, a lack of space and rising traffic congestion. The Southern California Association of Governments (SCAG) and the Los Angeles County Metropolitan Transportation Authority (LACMTA) seek to encourage this trend. SCAG, for example, has proposed a MAGLEV high-speed rail project, and LACMTA has encouraged transit-oriented development along its metro rail lines. Even with densification, green space (often called open space by urban planners) will be particularly vulnerable to residential development in the lower-cost exurban periphery as population and housing trends send people further a field in search of affordable housing.

**Environmental Challenges:** <Text for Slide 14>Overall, the region has made tremendous strides over the past 30 years, primarily by controlling emissions from cars and stationary sources, such as refineries. Despite the progress, however, the South Coast Air Basin is still designated a “severe non-attainment area,” making it hard for businesses to locate or expand here because projects must demonstrate conformity with air quality goals. Future air quality improvements will be difficult because the additional vehicles, attendant congestion and slower traffic will increase tailpipe emissions, especially for trucks.

The downside of the region's burgeoning role as a global transshipment center and general economic growth is increased pollution. An EPA study found that ships using the ports are the largest uncontrolled source of nitrogen and sulfur oxides in California, accounting for approximately 40 percent of all SO<sub>x</sub> and 12 percent of NO<sub>x</sub> (an ozone precursor) emissions from both mobile and stationary sources statewide. Aircraft, too, are a major source of air pollutants and LAX is one of the largest emitters in the basin. Trucks and other diesel-powered vehicles – including marine and rail – are a major source of NO<sub>x</sub> and the primary mobile source of particulate matter in the region. Even with the adoption of new truck emission standards, however, the share of total mobile source NO<sub>x</sub> emissions in the South Coast Air Basin attributable to trucks is expected to increase from 44 percent to 53 percent, 2000-2010.

Important water-related issues also loom. California will soon have to learn to live within its quota of Colorado River water (which it has consistently exceeded), forcing a reassessment of water supplies across the state. At the same time, MWD forecasts a 25 percent growth in water demand from 2000-2015. For the City of Los Angeles, at least, DWP believes much of the new demand can be met through conservation and better utilization of existing resources. For fast growing areas such as the Inland Empire, there will be strong incentives to seek transfers of agricultural water to urban users. Wheeling

and conveyance charges are a major issue. The more general issue is who will pay for third party financial, economic and environmental impacts of water transfers. In terms of wastewater, existing sewage facilities are inadequate, and polluted storm water runoff has recently become a critical regional issue.

## **Part IV: Policy Challenges and Solutions**

**Challenge: *Regional Coordination and Decision-Making*** <Text for Slide 15>The 60-Mile Circle region operates at the scale of states and even countries, yet lacks the central institutions that characterize these larger entities. Instead, the region has muddled through (often with considerable success) using the tools of local governance. The scale of the region and its problems has grown considerably, however, and issues such as traffic congestion and air pollution do not respect jurisdictional boundaries. Thus most projects require coordinating among at least a few of the region's more 179 cities, five counties (and their respective transportation planning agencies) along with Caltrans, the Southern California Association of Governments (the region's Metropolitan Planning Authority), California Air Resources Board, the Southern California Air Quality Management District, various other state and federal government agencies, the ports, airports, and numerous private sector actors.

Coordinating among competing priorities, fragmented funding resources and authorities, and overlapping jurisdictions can make projects extremely complex, adding delay and expense. Sometimes just defining the appropriate boundaries of a project can create problems. While it may be convenient to define a project so that it coincides with jurisdictional boundaries, this does not necessarily produce the most cost-effective system-level solution.

**Solution: *Joint Powers Authorities (JPA)*** <Text for Slide 16>The recent on-time, on-budget completion of the Alameda Corridor offers an excellent example of successful regional coordination. One of the keys to the project's success was the use of a JPA to concentrate the requisite responsibility and power in a single entity charged with sole task of completing the project. The Alameda Corridor Transportation Authority (ACTA) was formed as a JPA between the City of Los Angeles and the City of Long Beach (both San Pedro Bay ports are overseen by departments of their respective cities.) ACTA bought the railroad right of way for the project, acted as developer, and (after morphing into an operating agency) will collect tolls on containers passing through the corridor. It should be noted, however, that the efficiency gained by concentrating authority in ACTA was only realized after lawsuits involving smaller cities along the corridor were resolved by ACTA's agreement to provide \$12 million in mitigation funds to the cities in exchange for expedited permitting for ACTA construction.

Other keys to successful coordination among overlapping jurisdictions include seeking consensus (or at least compromise) from all interested parties as early as possible in the planning process, and making greater use of public-private partnerships. More extensive use of such public-private partnerships has been hindered by the distrust, notably between

industry (trucking, for instance) and regulators (such as the Air Resources Board and the South Coast Air Quality Management District). Another stumbling block has been reluctance to use public funds for private sector projects with broad public benefits. A prime example is offered by the regional rail system, where improvements could help reduce delay at grade crossing and would create opportunities to divert truck traffic from congested freeways.

**Challenge: *Burden Sharing and Fairness*** <Text for Slide 17>Major transportation infrastructure projects confer diffuse benefits and impose concentrated costs, making them unpopular with their neighbors. The local burdens imposed by airports, ports, highways and rail corridors have frequently been met with NIMBYism (Not in My Back Yard), particularly when projects are perceived as unfairly burdening particular communities. LAX is the poster child for this issue, handling the bulk of international air passenger and freight service for the region stretching from San Luis Obispo to the Mexican border.

San Diego, Palm Springs, Santa Barbara and other outlying areas join the entire 60-Mile Circle Region in enjoying the economic benefits and trade and travel opportunities made possible by the presence of LAX. The traffic congestion, noise and additional air pollution generated by one of the world's busiest airports, however, are borne primarily by residents of neighboring El Segundo, Playa del Rey, Westchester and Inglewood. These airport neighbors steadfastly oppose any expansion of service at LAX. Now that Orange County residents have rejected converting the former El Toro airbase into a civilian airport – with many arguing they'd rather hassle the drive to LAX than put up with an airport near their homes – the issue has become one of fairness. Looking further afield to San Diego – which seems unwilling or unable to build a decent airport of its own – residents who live near LAX may reasonably contend they should not have to shoulder most of the region's airport burden.

**Solution: *Regional Airport System*** <Text for Slide 18>The first step in dealing with issues of fairness and burden sharing is to acknowledge the intense local costs imposed by major projects such as ports and airports, and take local concerns seriously. (This has not been done particularly well in the past.) Mitigation, and possibly compensation, for local residents may be necessary to induce cooperation for projects with regional and even national benefits. For the airport issue, the region desperately needs to reduce its reliance on LAX and move towards a regional airport system that disperses the traffic.

LAX will, of course, continue to be the primary airport for Southern California. Even if other airports handle most of the additional air traffic, LAX will remain Southern California's primary airport for the foreseeable future. In the near term, the real choice at LAX is not between growth and no-growth; rather it is between planned and unplanned growth. Improving ground access could begin with remote check in options in downtown Los Angeles, Orange County, Long Beach, and the San Fernando Valley. Passengers using remote check in facilities would need to be transported to the airport by a convenient, dedicated transportation system that can also accommodate commuter needs.

Although security concerns currently top the agenda, the region needs to ensure that any plan that is adopted actually improves, rather than degrades, ease of use and security.

Developing a regional airport system over the longer term will not be easy. There is a disconnect between regional airport planning and development/operations. SCAG is the Metropolitan Planning Organization for regional airport planning, yet airport development and operation is decentralized among a host of independent agencies and governmental jurisdictions, including city agencies (Los Angeles World Airports (LAWA), Long Beach); county agencies (John Wayne, El Toro); and joint powers authorities (Burbank). Some regional airport mechanisms are in place, but they need to be developed. The LAWA system provides the opportunity to expand at Ontario and, eventually, Palmdale, but is not truly a regional system. A regional airport authority does exist on paper, but it is a limited tool that has languished for years and seems to be in the process of disbanding.

Existing incentives also impede development of a regional system. Airlines serve markets, not airports, and are reluctant to duplicate services at multiple airports while serving the same number of passengers. Since the airlines were deregulated, they can only be encouraged (through incentives such as better infrastructure) but not compelled to serve airports. We also lack penalties to encourage regions (such as Orange and San Diego Counties) to shoulder their share of the burden, though an early version of Assembly Bill 2333 sought to change that by withholding state transportation funds from Orange County if a new airport were not built at El Toro. (The final version was non-punitive, but did make equity a “guiding policy” of regional aviation planning.) The areas most eager to help solve the airport capacity crisis (such as Palmdale) tend to be furthest from the major concentrations of high-propensity air travelers. Moreover, the current financial woes of many of the major airlines have made them even more reluctant to invest in additional capacity at airports other than LAX.

The greatest promise for a regional system is for air cargo, which to the extent possible, should be redirected to airports such as Ontario, March, Norton and Palmdale. Moving additional cargo away from LAX will be difficult, though the new cargo facilities at Ontario airport are a positive development. Part of the challenge lies in convincing the airlines, which are free to choose which airports to serve. Separating cargo from passengers is not always feasible, but the trends are positive. Most air cargo used to travel in the belly holds of passenger aircraft, typically through major hubs such as LAX, because the packages often make the same connecting flights passengers do. Today, roughly half of the air cargo still travels on passenger aircraft, but the trend has been towards increasing use of dedicated cargo aircraft. This may accelerate given post-9/11 security concerns.

**Challenge: *Funding*** <Text for Slide 19>Even if local opposition and institutional complexity were not problematic, existing funding mechanisms would be insufficient to finance Southern California’s transportation infrastructure needs. The rapid population and trade growth expected over the next twenty-five years requires infrastructure investments that exceed the region’s ability to pay. Just the official, planned freight

movement transportation projects in the SCAG Regional Transportation Plan (RTP) will cost in excess of \$15 billion through 2025. If other desperately needed (by as yet unfunded) projects were included, the total would be much higher. Making up the shortfall will require a combination of state and federal funding, user fees, and creative financing alternatives.

**Solution: *Creative Financing, Possibly Using Customs Revenue*** <Text for Slide 20>While everyone acknowledges the need for creative or innovative financing, few offer concrete ideas about what it might actually entail. From a local perspective, it often seems to refer to “someone other than us,” which usually means the federal government. Federal funding makes sense for projects handling trade flows that confer significant national benefits and impose major local costs. Good examples include the Alameda Corridor and future I-710 improvements. Federal funding is limited, however, and California is not the only state with pressing infrastructure needs. User fees are one possible alternative since they can provide a bondable revenue stream. The \$30 per container fee on all cargo moving through the Alameda Corridor, for example, allowed almost two-thirds of that project to be financed with debt instruments. User fees, however, are not a panacea. Many projects cannot be adequately financed with user fees: A feasibility study of truck lanes on the SR-60 freeway indicated that even if tolls were optimally applied, only about 30 percent of the project’s costs could be recovered with tolls.

One truly innovative alternative would augment federal funds with trade-based revenues to finance required transportation network improvements. This strategy would invest incremental increases in customs revenues to expand and improve the efficiency of the nation’s trade rail corridors and mainline intermodal facilities. Without such investments, the nation’s intermodal and rail corridor infrastructure will reach maximum capacity in the next 3 to 5 years, placing a ceiling on customs revenues (which are collected on imported goods). By investing 5 to 10 percent of incremental customs revenues in capacity improvements, trade (and hence total customs revenues) will be allowed to grow. These national (customs) funds could be invested in trade corridors around the country, though the hope would be to start with California.

Investing national funds in efficient transportation networks in California is actually in *other* states’ interest. First, California’s global gateways and trade corridors act as conduits for two-way international surface trade between Pacific Rim nations and every region of the United States. Second, the domestic surface trade between California and other states annually, dwarfs the enormous international trade flows, worth tens of billions of dollars. California consumers represent one of the largest markets for goods produced in other U.S. states. Investing in California infrastructure will ensure that goods produced in other states continue to reach their California customers in a timely way and may reduce their warehousing cost through logistics strategies like “just-in-time” delivery.

**Challenge: *Efficient Use of Existing Infrastructure*** <Text for Slide 21>Even with the rosier financing scenarios, Southern California is unlikely to be able to raise enough

money to pay for all of the necessary infrastructure improvements. Like any cost-conscious family, we will have to stretch our means as creatively as possible, and, in some cases, learn to make do with what we have. Making the most efficient use of existing transportation resources will thus be an important challenge. The key question is how best to encourage such efficiencies.

**Solution: *Threats?*** <Text for Slide 22>Freight movement to and from the ports is one example where we need to be making more efficient use of our infrastructure. Container truck traffic at the ports is grossly inefficient, with most container moves concentrated during the peak commuting periods. Spreading these moves throughout the entire (24-hour) day could improve efficiency, increase the number of turns a driver could complete during a shift, and reduce congestion for non-freight traffic on the freeways. Realizing these gains, however, would require changing business practices, and inducing a degree of cooperation among private businesses that will be difficult to achieve given the competitive nature of the freight industry. Terminal operators, for example, would have to offer extended hours of operation – which they prefer to avoid because it means paying overtime wages or changing labor rules – and the businesses receiving the cargo would have to have warehouse staff available outside standard business hours.

With congestion, particularly truck congestion, already a major problem on the I-710 – the main route serving the ports – a collaborative solution is both desirable and necessary. Ultimately, the industry will have to solve its coordination problems, or risk having sub-optimal solutions imposed upon them. Already, there are suggestions for a “peak period fee” on containers leaving the port by truck between 7AM and 6PM, and Assembly Bill 2650 proposes fining terminal operators if diesel trucks picking up or dropping off containers idle for more than 30 minutes. Hopefully the industry will render these “threats” unnecessary by arriving quickly at its own solution.

**Solution: *Bribes?*** <Text for Slide 23>Freeway efficiency needs to be improved because the growth anticipated in the five-county region over the next twenty years is so great there will be insufficient capacity during peak periods to handle the demand if current commuting patterns persist. Based on current use patterns we know that people would prefer to drive their own cars alone on un-congested freeways. Since cars offer extraordinary flexibility and convenience, everyone would prefer that someone else not drive. Yet tremendous gains in efficiency could be realized if at least some people who could drive were to use an alternative at least some of the time. Purely from a mobility standpoint (and ignoring environmental considerations), the goal is to remove just enough vehicles from the road to ease congestion for everyone else. Convincing some drivers to abandon their cars some of the time – when even among current transit users more people aspire to car ownership, not better transit – will require “inducements.”

A more comprehensive and efficient HOV network, for example, is an inducement offered to encourage some drivers to leave their cars at home thus improving the efficiency of the overall freeway system for everyone else. The inducement is also offered to transit riders to the extent HOV lanes improve bus and vanpool service enough to make it more attractive than driving alone. (This is particularly true of airport service.)

Some drivers who do not want to be bound by carpool scheduling nonetheless take up the inducement by stopping at locations such as the El Monte bus station and various Park-and-Ride lots to pick up passengers. The MTA's new Metro Rapid buses offer a similar inducement by improving bus travel.

Buses, which have earned their reputation as the transportation mode of last resort, have the potential to make an enormous impact in reducing congestion for other drivers with relatively little investment. The Metro Rapid buses make fewer stops than regular buses, and (like all new buses), have low floors near the door that are about the same height as the curb to cut boarding and alighting time. Wait time at signals is reduced using a new technology called "Signal Priority System" or SPS. The system delays a red light if an SPS-equipped bus is approaching an SPS-equipped streetlight. These improvements have helped reduce travel time on Metro Rapid bus routes by 25 percent compared to standard buses. The Metro Rapid buses now travel these routes about as fast as cars – an impressive feat considering cars do not have to stop to load and unload passengers – and the public has responded to the improved service. Ridership rose by 27 percent on the Wilshire-Whittier line and by 33 percent on the Ventura Boulevard line, suggesting the “bribe” is working.

**Challenge: *Cost-Effective Choices*** <Text for Slide 24> Many of the transportation challenges facing the 60-Mile Circle Region are in some way related to money. Simply put, we are unlikely to be able to pay for all of the infrastructure improvements required to meet the needs of our rapidly growing population and rising trade volumes. Returning to the family analogy, the region will need to carefully assess its purchases of transportation infrastructure to ensure we are getting the most value for our investment dollar. The MTA offers examples of both good and poor practices. Relative to its ridership, the Metro Red Line (the Los Angeles Subway) was an incredibly expensive project. The proposed “Bus Rapid Transit” Corridors, on the other hand, seem to offer far better returns.

Two proposed "Bus Rapid Transit" (BRT) projects would have limited stops and provide priority to buses at intersections, allowing them to travel faster than the rest of the traffic. At major stops, extra "Park-and-Ride" lots would be added to solve the first mile problem. Commuters could drive directly to the bus corridor, park, and board the bus. Beyond the speed and convenience offered potential riders, the BRT corridors are also attractive because of their cost and flexibility. The Wilshire BRT will cost a mere \$200 million, and the San Fernando Valley BRT, \$300 million, compared to \$877 million for the L.A.-Long Beach Blue Line. The current Wilshire-Whittier Metro Rapid buses have an average weekday ridership of around 56,000, not much lower than Blue Line's 63,900. The buses will offer even greater timesavings once the BRT routes are completed, and ridership may well exceed that of the Blue Line. BRT routes also are flexible. These buses, unlike trains, can easily be diverted if commute patterns change, or if extra buses are needed for a special event on another corridor (such as providing service for a football game). Expanded BRT routes may thus offer the most cost-effective solution to mobility needs in Los Angeles.



**Solution: *Near-Dock Rail*** <Text for Slide 25>Traffic at the San Pedro Bay Ports is increasing rapidly and demand will soon outstrip supply on already crowded freeways and at existing intermodal yards that are nearing capacity. The I-710 freeway, as the major route for port truck traffic, already sees in excess of 30,000-truck trips daily – many of them transporting containers to and from intermodal rail facilities. Truck traffic on the I-710 compounds existing congestion, imperils safety and increases air pollution. Improving the I-710 will cost billions of dollars and take *at least* ten years. A cost-effective solution that can be implemented much sooner would be to build a new near-dock intermodal facility.

A new intermodal rail yard adjacent to the ports, if it had enough space to handle three 7,000-foot double-stack trains at a time, would have a capacity of 800,000 annual intermodal lifts. With the use of on-site queuing lanes for trucks and automated kiosks using “card swipe” technology, such a rail yard would improve efficiency, keep trucks moving (*not* lining up on city streets), and improve safety. Crucially, a new rail intermodal facility would cost a fraction of the price to improve the I-710, while eliminating almost 3,000 truck trips daily.

**Challenge: *Attitude Adjustment*** <Text for Slide 26>The public has a negative and one-sided view of freight movement, associating it with congestion, pollution, delays at rail crossings, and traffic accidents. The intensity of this perception seems to depend on the proximity of one’s home to a major freight facility or corridor. Those who live near such facilities tend to have an intense, hostile attitude towards freight activity. This attitude is typified by the fierce opposition from residents opposed to expanding LAX airport, and the complaints of environmental justice violations associated with heavy truck traffic from residents of communities along the I-710 access routes to the San Pedro Bay Ports. This anger tends to dissipate the further one lives from a major corridor, eventually reaching the broad antipathy reflected in the ever-increasing parking and traffic route restrictions truckers face in cities throughout the region. Many people wonder why we can’t just ban the trucks, with no thought given to what such a ban would do to their lifestyles.

**Solution: *Realizing We Are the Problem and the Solution*** <Text for Slide 27> The public either does not explicitly connect trucks (and major transportation projects generally) with positive benefits such as employment and efficient freight movement, or believes the local costs outweigh any benefits. The irony, of course, is that we cannot ban trucks unless we are prepared first to give up our jobs and to quit being consumers. Many of the region’s most pressing problems – from congestion to air pollution – are directly related to the fact that so many of us live, work and play here.

Two strategies are needed. First, the public needs to understand the positive impacts of freight, and the dependence of our way of life on fast, efficient freight movement. Half a million people are employed directly in the region handling freight, numerous others work in jobs that depend on the products being shipped, and the entire economy would suffer if the region’s freight flows slowed or stopped. Second, planners need to take local residents’ concerns seriously. Miami International Airport, for example, spent millions of

dollars constructing “the Great Wall of Miami” – a lengthy sound wall separating one of its runways from a nearby neighborhood. The wall was constructed despite engineers’ assurances that it would do nothing to mitigate sound. The lesson here is not that the airport’s neighbors were duped; rather, it is the importance of providing tangible evidence to those who most directly bear the costs of major infrastructure projects that their concerns are being addressed. To the maximum extent feasible, effective mitigation measures must be included in designing new infrastructure projects.