In the 1950’s, President Dwight Eisenhower recognized the close connection between transportation infrastructure, economic efficiency and the standard of living. He launched the Interstate Freeway system. Imagine today’s U.S. economy if this conservative President had not convinced the Congress to investment in that system. In the 1960’s, Governor Pat Brown saw the connection between infrastructure and economic growth with the California State Water Project. Imagine Southern California’s economy without it.

Today, Southern California faces infrastructure challenges rivaling those efforts. With manufacturing declining, our area’s huge base of marginally educated workers is losing their traditional route to upward income mobility. Fortunately, the rise of international trade and the logistics industry in Southern California can replace manufacturing by providing a growing base of good-paying jobs that these workers can learn via on-the-job experience. However, the expansion of logistics will be constrained if the private sector does not find ways to invest in our truck, rail, port and airport infrastructure. Likewise, logistics will be held back if ways are not found to mitigate the sector’s negative health impacts.

**Manufacturing Job Decline.** From 1990-2005, Southern California has lost 354,000 of the region’s 1,274,000 manufacturing jobs (Exhibit 1). This is a key reason why the area has seen its rank among the nation’s 17 major multi-county economies fall from 4th in 1987-1988 to 17th and last by 2003 (Exhibit 2). In this period, the economy added more jobs than it lost. But, the losing jobs, many in manufacturing, averaged $45,165 while the expanding jobs averaged only $33,145.

**Cost Competitiveness.** In part, this situation came about because of California’s high cost environment. Recently, this was seen by its high workers compensation costs, high electrical rates and its very expensive housing. As a result, companies in the sectors that have come under pressure have either avoided the state, put their growth elsewhere, or moved away. This included aerospace and defense firms in the early 1990’s; high technology companies in the late 1990’s and general manufacturers recently. Historically what has propelled the state’s economy have been waves of innovation that have created large numbers of new jobs as California’s risk taking environment and successful university systems have spawned the successful marriage of entrepreneurship, research and well educated workers.

### Exhibit 1 - Manufacturing Job Change
Southern California, 1990-2005

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<td>Jobs</td>
<td>1,274,000</td>
<td>1,247,000</td>
<td>1,233,000</td>
<td>1,220,000</td>
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<td>1,138,000</td>
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<td>1,098,000</td>
<td>1,085,000</td>
<td>1,072,000</td>
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Source: C.A. Employment Development Department, Economics & Politics, Inc.

### Exhibit 2 - Per Capita Income Rank, 1969-2003
SCAG Rank of 17 Consolidated Metropolitan Areas

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Source: Southern California Association of Governments
**Marginally Educated Workers.** Unfortunately, despite the technology boom of the late 1990’s, Southern California’s relative prosperity continued to slip. The reason appears to be our area’s inability to provide a path to prosperity for growing number of marginally educated workers with 45% not having had one college class in 2003 (*Exhibit 3*). In the past, these workers benefited in good times due to the skill ladders in the manufacturing sector. These firms provided several factors that unskilled adults need for long term economic success. They were based in Southern California. Their jobs were blue collar. Beginning workers earned good entry level pay. There was a clear hierarchy of jobs up which they could advance based upon on-the-job learning.

**Logistics.** Today, the sector replacing manufacturing must offer these advantages plus be sufficiently tech-based to provide a secure long term future. Logistics is that group. In 2003, there were 548,278 jobs in its sectors (*Exhibit 4*). Most were in wholesaling (352,373), and trucking (54,504). Others included white collar workers in supply chain management plus people working as couriers and in air, water and rail transport. It also includes ancillary operations such as air traffic control, stevedoring, container loading and vehicle towing. From 1990-2005, logistics was one of the few non-population related sections of Southern California’s economy to provide significant job growth, up 98,025 or 17.4%.

**Good Pay.** Importantly in 2003, logistics pay averaged $45,314 or more than both manufacturing ($43,871) and construction ($40,439). This was also true for two of the group’s three largest sectors: wholesale trade ($46,892 for 352,373 workers) and support activities ($49,829 for 52,662 workers). The logistics group also provides unskilled workers with entry level salaries well above the
minimum wage. For instance, in the Inland Empire unskilled general material moving workers in warehousing earned $9.71 per hour in 2005. From there, they can attain significantly better pay through experience and on-the-job learning as they move up to the median pay of $12.08. Those working their way up to front-line supervisor can earn the median wage of $20.51 per hour.

**Technology A Key.** Relatively strong pay scales are possible in the logistics sector because it has become one of the most capital and information intensive parts of the U.S. economy. The shift occurred because of the adoption of “just-in-time” systems by the nation’s manufacturers and retailers. These systems track inventories and only order new merchandise once existing supplies start to disappear. Workers are paid well because of the efficiency inherent the technologies they must learn to use:

- Computerized order receiving
- Personal digital assistants
- Robotic goods handling and moving
- Random product testing & measurement equipment
- Geographic Information Systems truck routing
- Laser scanners
- Global Positioning System tracking of vehicles
- Internet communications
- Manufacturing inside warehouses

**Logistics: Powerful Long Term Potential In Southern California.** The growth of Southern California’s logistics employment should not be a short term phenomenon. The shift of manufacturing to Asia has highlighted the area’s competitiveness and led to 43% of U.S. imported containers entering through Los Angeles or Long Beach harbors. The region’s competitiveness includes:

- A West Coast location
- A huge internal market
- Deep water ports that can accommodate 8,200 TEU (20-foot equivalent) container ships drawing 51 feet
- Only Seattle and Vancouver can handle 8,200 TEU ships which cannot use the Panama Canal
- Though currently over-taxed, the region has by far the largest complex of ports, railroads, airports, highways and intermodal railyards on the West Coast
- Retailers save 18-20% on inventory costs managing goods from Southern California versus Asia because goods can be delivered within days, not weeks, of when sales forecasts are made.

**Issues.** Southern California has a golden opportunity to provide jobs in an upwardly mobile environment to workers who need a replacement for manufacturing. To succeed the region must keep its edge in the speed and reliability of delivering goods to the nation. There are two jugular veins to this occurring:

- Major investments are needed in the region’s port, rail, truck, airport and freeway infrastructure. Government can help but the volume of needed investment will ultimately require private sector participation. Funding strategies must thus be able to show a return on investment to shippers for doing so. Otherwise, industry will likely kill any strategy.

- Air quality must be improved. This means investing in strategies that will demonstrably lower the negative health risks associated with logistics. Otherwise, environmental groups will likely kill any strategy.