# Chapter 7
# Socioeconomics and Related Environmental Quality

## 7.1 Introduction

The socioeconomic character of the local area near the Port and the larger Southern California region is described in terms of employment and earnings, population, housing (including residential property values), and the influence that the Port has played on neighboring communities. Complementary information regarding environmental quality is presented in Section 3.9, Land Use. As discussed in this chapter, net changes in employment attributable to terminal operations under proposed Project conditions could reach 5,950 jobs annually over No Project Alternative conditions by the year 2045. These jobs are likely to be relatively well paying and provide substitutes for jobs being consistently lost from the manufacturing sector in the region. When these effects induced by the proposed Project are compared to regional employment levels, their contribution accounts for below 1 percent of regional employment.

## 7.2 Environmental Setting

The environmental setting includes existing or baseline conditions and describes attributes of the human and built environment (including infrastructure) near the Port and within the larger region of Southern California. For the purposes of this analysis and as used in this section, Southern California refers to a five-county region comprising the counties of Los Angeles, Orange, Riverside, San Bernardino, and Ventura.

### 7.2.1 Socioeconomic Topical Areas

Socioeconomics encompasses a number of topical areas including employment and income, population, and housing. Within each of these areas, subtopics include an examination of conditions at different geographical scales that are relevant to the potential impacts associated with implementation of the proposed Project.

### 7.2.1.1 Employment and Income

Existing conditions with regard to employment and income are described from a number of perspectives. They include the following:

- Conditions at the regional level (that is, the five-county region of Southern California identified previously, which represents the area in which the bulk of the economic activity stimulated by the Port occurs and for which economic modeling is appropriate)
- Contribution to the regional economy made by international trade
- Importance of the "logistics" sector of the economy
- Role of the Port
- Conditions at the county and local level (small geographical areas near the Port, including San Pedro, Wilmington, Carson, and Harbor City)

#### Southern California

Between 1990 and 2006, total civilian employment in Southern California increased by more than 1.28 million jobs (from 7,009,400 jobs to 8,291,300 jobs) at an average annual rate of 1.2 percent (Figure 7.2-1). Examination of the information presented in Table 7.2-1 illustrates the manner in which this growth varied geographically. The most rapid increase in employment over the period (with the addition of over 343,000 jobs) took place in Riverside County where employment grew at an annual average rate of 3.8 percent (69 percent over the 16-year period). San Bernardino County experienced the next highest rate of growth (2.5 percent per year, on average) with an increase of over 242,000 jobs. Orange County experienced the third most rapid growth rate in employment of 1.3 percent annually, resulting in an increase of over 262,000 jobs. Los Angeles County experienced the largest numeric increase in employment of almost 372,000 jobs; however, the growth rate was a more modest 0.6 percent annually.

Based on projections prepared by the Southern California Association of Governments (SCAG), employment in Southern California will continue to expand, especially in Riverside and San Bernardino counties (Table 7.2-2). These two counties are expected to experience growth rates far in excess of those for other counties. Of the selected cities in Los Angeles County for which information is presented in Table 7.2-2, Lakewood, Long Beach, and Signal Hill are expected to see their employment base expand more rapidly than that of the county. Unemployment levels in the counties of Southern California have mirrored closely the cyclical pattern of that of the State of California (Figure 7.2-2). Unemployment fell throughout the 1980s (to below 6 percent) but rose steeply in the early 1990s. This rise was associated with the reduction in military spending (especially in the aerospace industry) at the end of the Cold War. Unemployment rates peaked in 1993 and then fell gradually throughout the remaining 1990s with the rebound of the economy buoyed by the surge in dot-com activity and residential construction boom. Following the exuberance of this period, unemployment rates rose for a few years before moving downward again. Throughout these cycles, the unemployment rate in Orange County was consistently lower than that of other counties of Southern California, as well as the state (Table 7.2-3).

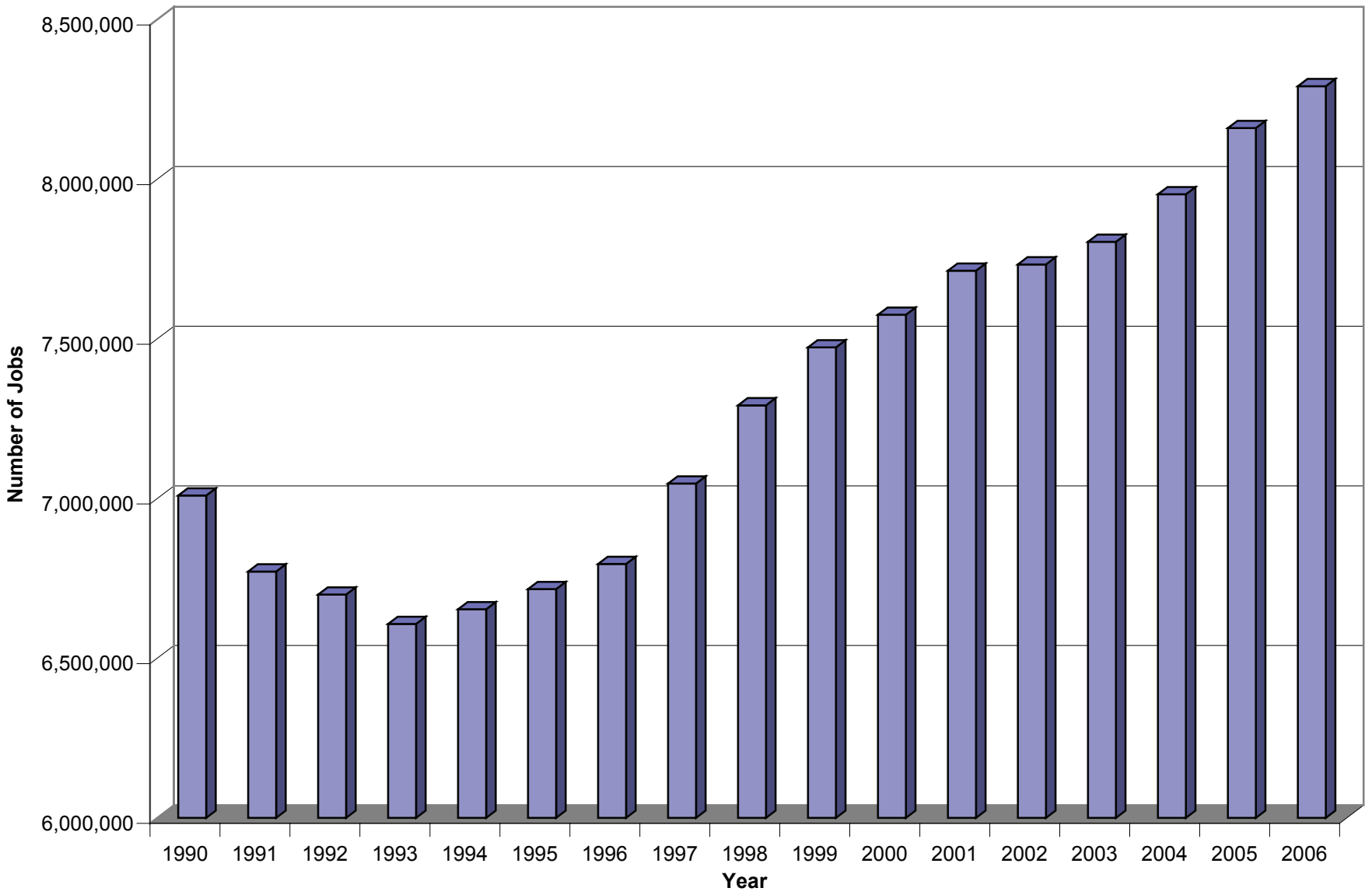


**Figure 7.2-1**
**Employment in 5-County Southern California Region (1990-2004)**
**Berth 97-109 Container Terminal Project EIS/EIR**

Source: TraPac, 2007

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**Table 7.2-1.** Total Civilian Employment by County (1990-2006)

| Year | County | | | | | Southern California |
|---|---|---|---|---|---|---|
| | Los Angeles | Orange | Riverside | San Bernardino | Ventura | |
| 1990 | 4,259,700 | 1,306,200 | 498,300 | 599,600 | 345,600 | 7,009,400 |
| 1991 | 4,101,000 | 1,247,900 | 493,800 | 590,500 | 338,400 | 6,771,600 |
| 1992 | 4,006,700 | 1,241,500 | 507,600 | 604,100 | 339,400 | 6,699,300 |
| 1993 | 3,908,500 | 1,236,800 | 511,600 | 608,900 | 341,400 | 6,607,200 |
| 1994 | 3,898,600 | 1,257,500 | 534,000 | 612,900 | 350,400 | 6,653,400 |
| 1995 | 3,938,600 | 1,254,400 | 549,900 | 622,500 | 351,100 | 6,716,500 |
| 1996 | 3,967,800 | 1,280,400 | 563,100 | 634,300 | 349,600 | 6,795,200 |
| 1997 | 4,117,000 | 1,328,200 | 589,600 | 658,600 | 353,400 | 7,046,800 |
| 1998 | 4,246,100 | 1,385,300 | 615,900 | 680,100 | 364,500 | 7,291,900 |
| 1999 | 4,309,400 | 1,422,100 | 653,600 | 712,600 | 375,600 | 7,473,300 |
| 2000 | 4,424,900 | 1,428,400 | 643,900 | 703,600 | 374,700 | 7,575,500 |
| Baseline Year 2001 | 4,483,400 | 1,453,400 | 672,000 | 724,500 | 380,000 | 7,713,300 |
| 2002 | 4,447,100 | 1,456,500 | 701,800 | 743,200 | 384,600 | 7,733,200 |
| 2003 | 4,440,800 | 1,484,200 | 731,500 | 758,300 | 389,200 | 7,804,000 |
| 2004 | 4,477,900 | 1,516,400 | 775,900 | 788,700 | 393,800 | 7,952,700 |
| 2005 | 4,581,100 | 1,544,800 | 816,500 | 816,800 | 400,900 | 8,160,100 |
| 2006 | 4,631,600 | 1,568,300 | 842,000 | 842,300 | 407,100 | 8,291,300 |
| Change (1990-2006): | | | | | | |
| Number | 371,900 | 262,100 | 343,700 | 242,700 | 61,500 | 1,281,900 |
| Percent | 8.73% | 20.07% | 68.97% | 40.48% | 17.80% | 18.29% |
| Average Annual Percent | 0.60% | 1.31% | 3.82% | 2.46% | 1.18% | 1.21% |
| Source: CEDD, 2005 | | | | | | |

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**Table 7.2-2.** Total Civilian Employment Projection by County and City (2010-2045)

| | 2010 | 2015 | 2020 | 2025 | 2030 | 2045 | Change (2010-2045) | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | Numeric | Percent | Average Annual Percent |
| Southern California (Five-County Region) | 8,652,468 | 9,113,530 | 9,566,212 | 9,998,496 | 10,416,130 | 11,849,084 | 3,196,616 | 36.94% | 0.90% |
| **County:** | | | | | | | | | |
| Los Angeles County | 5,022,215 | 5,198,739 | 5,366,865 | 5,520,139 | 5,660,992 | 6,105,484 | 1,083,269 | 21.57% | 0.56% |
| Orange County | 1,749,985 | 1,801,602 | 1,848,135 | 1,887,542 | 1,921,806 | 2,028,375 | 278,390 | 15.91% | 0.42% |
| Riverside County | 727,711 | 839,698 | 954,499 | 1,070,761 | 1,188,976 | 1,627,851 | 900,140 | 123.69% | 2.33% |
| San Bernardino County | 770,877 | 870,491 | 972,243 | 1,074,861 | 1,178,890 | 1,555,379 | 784,502 | 101.77% | 2.03% |
| Ventura County | 381,680 | 403,000 | 424,470 | 445,193 | 465,466 | 531,994 | 150,314 | 39.38% | 0.95% |
| **City:** | | | | | | | | | |
| Los Angeles | 1,994,358 | 2,057,435 | 2,117,623 | 2,172,642 | 2,223,338 | 2,382,635 | 388,277 | 19.47% | 0.51% |
| Carson | 68,552 | 70,482 | 72,302 | 73,932 | 75,398 | 79,973 | 11,421 | 16.66% | 0.44% |
| Palos Verdes Estates | 1,282 | 1,286 | 1,290 | 1,294 | 1,298 | 1,310 | 28 | 2.19% | 0.06% |
| Rancho Palos Verdes | 4,807 | 4,933 | 5,055 | 5,162 | 5,259 | 5,561 | 754 | 15.69% | 0.42% |
| Redondo Beach | 27,506 | 28,325 | 29,095 | 29,784 | 30,404 | 32,343 | 4,837 | 17.58% | 0.46% |
| Rolling Hills | 310 | 321 | 331 | 340 | 349 | 377 | 67 | 21.76% | 0.56% |
| Rolling Hills Estates | 4,793 | 4,930 | 5,060 | 5,175 | 5,278 | 5,599 | 806 | 16.83% | 0.45% |
| Torrance | 108,889 | 111,523 | 114,009 | 116,228 | 118,230 | 124,445 | 15,556 | 14.29% | 0.38% |
| Lakewood | 15,794 | 16,509 | 17,195 | 17,829 | 18,423 | 20,326 | 4,532 | 28.70% | 0.72% |
| Long Beach | 213,998 | 222,549 | 230,774 | 238,440 | 245,647 | 268,602 | 54,604 | 25.52% | 0.65% |
| Signal Hill | 12,255 | 13,770 | 15,211 | 16,524 | 17,728 | 21,892 | 9,637 | 78.64% | 1.67% |

Source: SCAG, 2007
Extrapolation from 2030 to 2045 by CH2M HILL, 2007

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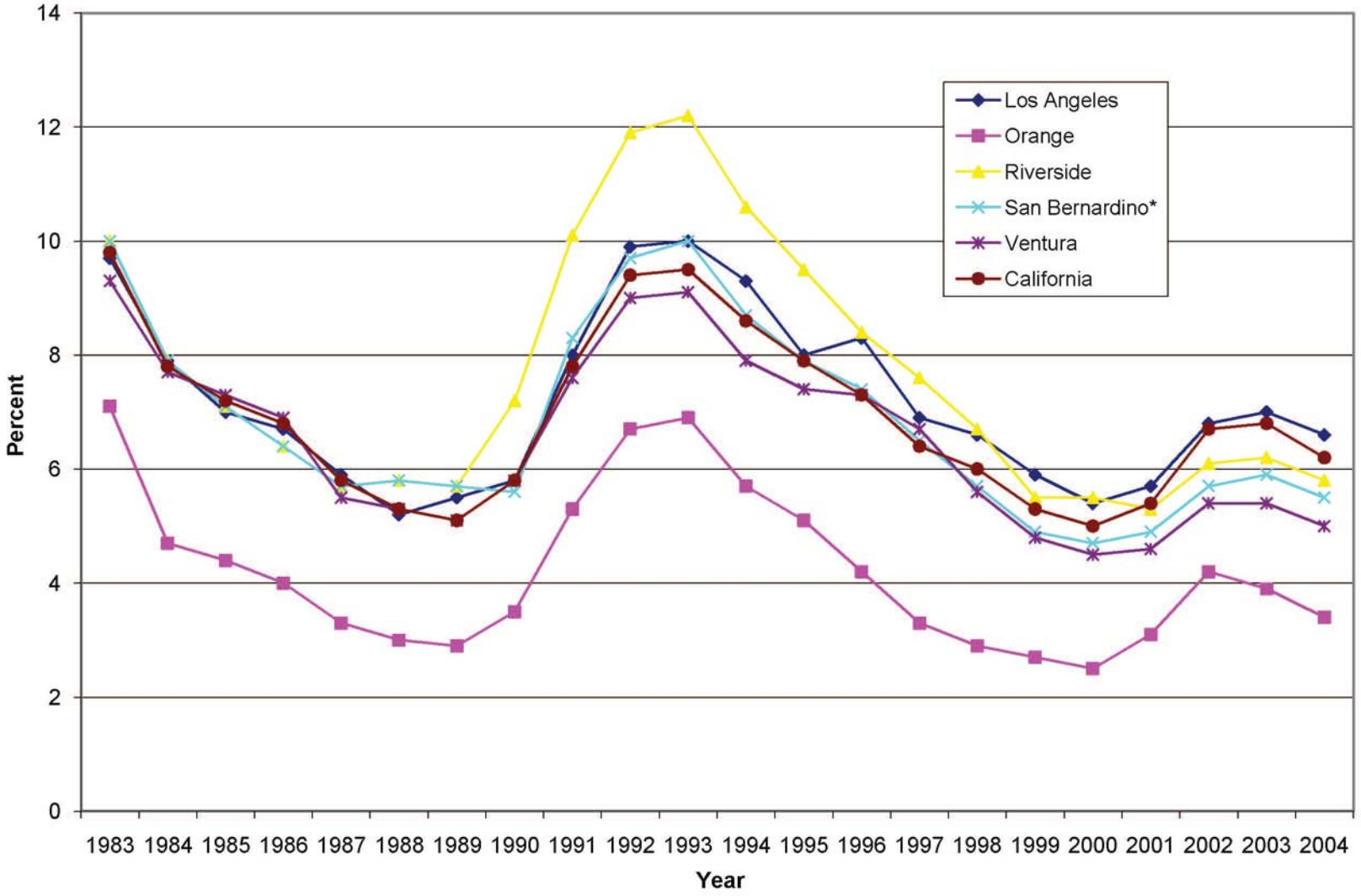


*Source:* LAEDC 2005

**Figure 7.2-2**
**Unemployment Rate for State and Counties (1983-2004)**
**Berth 97-109 Container Terminal Project EIS/EIR**

Source: TraPac, 2007

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**Table 7.2-3**. Unemployment Rate (%) by County (1990-2004)

| Year | County | | | | | California |
|---|---|---|---|---|---|---|
| | Los Angeles | Orange | Riverside | San Bernardino | Ventura | |
| 1990 | 5.8 | 3.5 | 7.2 | 5.6 | 5.8 | 5.8 |
| 1991 | 8.0 | 5.3 | 10.1 | 8.3 | 7.6 | 7.8 |
| 1992 | 9.9 | 6.7 | 11.9 | 9.7 | 9.0 | 9.4 |
| 1993 | 10.0 | 6.9 | 12.2 | 10.0 | 9.1 | 9.5 |
| 1994 | 9.3 | 5.7 | 10.6 | 8.7 | 7.9 | 8.6 |
| 1995 | 8.0 | 5.1 | 9.5 | 7.9 | 7.4 | 7.9 |
| 1996 | 8.3 | 4.2 | 8.4 | 7.4 | 7.3 | 7.3 |
| 1997 | 6.9 | 3.3 | 7.6 | 6.5 | 6.7 | 6.4 |
| 1998 | 6.6 | 2.9 | 6.7 | 5.7 | 5.6 | 6.0 |
| 1999 | 5.9 | 2.7 | 5.5 | 4.9 | 4.8 | 5.3 |
| 2000 | 5.4 | 2.5 | 5.5 | 4.7 | 4.5 | 5.0 |
| 2001 | 5.7 | 3.1 | 5.3 | 4.9 | 4.6 | 5.4 |
| 2002 | 6.8 | 4.2 | 6.1 | 5.7 | 5.4 | 6.7 |
| 2003 | 7.0 | 3.9 | 6.2 | 5.9 | 5.4 | 6.8 |
| 2004 | 6.6 | 3.4 | 5.8 | 5.5 | 5.0 | 6.2 |
| Source: CEDD, 2005 | | | | | | |

The total number of farm and nonfarm jobs in Los Angeles County decreased over the period of 1990 to 2004 by almost 150,000 jobs, or almost 4 percent (Table 7.2-4). The greatest numeric decline took place in the manufacturing sector with a decrease of 40 percent, or over 327,000 jobs. Manufacturing saw its share of total employment decline from almost 20 percent in 1990 to just over 12 percent in 2004. This decline in manufacturing employment, as well as small declines in other industries, was virtually compensated for by large increases in education and health services, leisure and hospitality, and local government.

Research conducted by SCAG (June 2004) demonstrates that the average per capita income and average payroll per job in the five counties of Southern California have declined significantly over the last 10 to 15 years when compared to other metropolitan areas in the nation. This deterioration began noticeably with the severe economic dislocation experienced in the high-paying aerospace and defense manufacturing sector in the early 1990s during the post Cold War recession. Although the region recovered from the employment loss in succeeding years, the quality (and salary) of the jobs created compared poorly with those lost.

**Table 7.2-4.** Total Farm and Nonfarm Employment for Los Angeles County, California (1990-2004)

| Industry Group | 1990 | 1995 | 2000 | 2004 | Change (1990-2004) | | |
|---|---|---|---|---|---|---|---|
| | | | | | Number | Percent | Average Annual Percent |
| Total, All Industries | 4,149,500 | 3,754,500 | 4,079,800 | 3,999,700 | -149,800 | -3.61% | -0.26% |
| Total Farm | 13,700 | 8,000 | 7,700 | 7,600 | -6,100 | -44.53% | -4.12% |
| Total Nonfarm | 4,135,700 | 3,746,600 | 4,072,100 | 3,992,200 | -143,500 | -3.47% | -0.25% |
| Natural Resources and Mining | 8,200 | 4,100 | 3,400 | 3,900 | -4,300 | -52.44% | -5.17% |
| Construction | 145,100 | 113,100 | 131,700 | 139,400 | -5,700 | -3.93% | -0.29% |
| Manufacturing | 811,600 | 626,200 | 611,300 | 484,200 | -327,400 | -40.34% | -3.62% |
| Trade, Transportation, and Utilities | 794,700 | 718,800 | 784,800 | 780,200 | -14,500 | -1.82% | -0.13% |
| Information | 186,200 | 190,400 | 242,600 | 208,100 | 21,900 | 11.76% | 0.80% |
| Financial Activities | 280,300 | 228,700 | 218,700 | 243,200 | -37,100 | -13.24% | -1.01% |
| Professional and Business Services | 541,900 | 519,000 | 598,200 | 561,000 | 19,100 | 3.52% | 0.25% |
| Educational and Health Services | 384,700 | 371,000 | 416,200 | 467,700 | 83,000 | 21.58% | 1.41% |
| Leisure and Hospitality | 306,600 | 308,900 | 344,300 | 373,100 | 66,500 | 21.69% | 1.41% |
| Other Services | 136,700 | 130,900 | 139,700 | 144,800 | 8,100 | 5.93% | 0.41% |
| Government | 539,800 | 535,700 | 581,300 | 586,600 | 46,800 | 8.67% | 0.60% |
| Federal Government | 71,900 | 63,400 | 57,900 | 54,400 | -17,500 | -24.34% | -1.97% |
| State and Local Governments | 467,900 | 472,300 | 523,300 | 532,200 | 64,300 | 13.74% | 0.92% |
| State Government | 69,900 | 70,500 | 77,100 | 78,900 | 9,000 | 12.88% | 0.87% |
| Local Government | 398,100 | 401,800 | 446,200 | 453,300 | 55,200 | 13.87% | 0.93% |

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**Table 7.2-4.** Total Farm and Nonfarm Employment for Los Angeles County, California (1990-2004) (continued)

| Industry Group | 1990 | 1995 | 2000 | 2004 |
|---|---|---|---|---|
| Total, All Industries | 100.00% | 100.00% | 100.00% | 100.00% |
| Total Farm | 0.33% | 0.21% | 0.19% | 0.19% |
| Total Nonfarm | 99.67% | 99.79% | 99.81% | 99.81% |
| Natural Resources and Mining | 0.20% | 0.11% | 0.08% | 0.10% |
| Construction | 3.50% | 3.01% | 3.23% | 3.49% |
| Manufacturing | 19.56% | 16.68% | 14.98% | 12.11% |
| Trade, Transportation, and Utilities | 19.15% | 19.15% | 19.24% | 19.51% |
| Information | 4.49% | 5.07% | 5.95% | 5.20% |
| Financial Activities | 6.76% | 6.09% | 5.36% | 6.08% |
| Professional and Business Services | 13.06% | 13.82% | 14.66% | 14.03% |
| Educational and Health Services | 9.27% | 9.88% | 10.20% | 11.69% |
| Leisure and Hospitality | 7.39% | 8.23% | 8.44% | 9.33% |
| Other Services | 3.29% | 3.49% | 3.42% | 3.62% |
| Government | 13.01% | 14.27% | 14.25% | 14.67% |
| Federal Government | 1.73% | 1.69% | 1.42% | 1.36% |
| State and Local Governments | 11.28% | 12.58% | 12.83% | 13.31% |
| State Government | 1.68% | 1.88% | 1.89% | 1.97% |
| Local Government | 9.59% | 10.70% | 10.94% | 11.33% |
| Source: CEDD, 2005 | | | | |

Since 1990, many of the lost jobs have been in well-paying sectors such as manufacturing (aerospace, electronic instrument, computer and peripheral, machinery, and fabricated metal) and Department of Defense and other federal agencies. Although a significant number of well-paying jobs were added to the regional economy over the same time period (arts, entertainment, and recreation; wholesale trade; transportation and warehousing; construction; local government; and health care), the majority of new jobs were lower-paying positions in the service sector (office administrative, employment, and food and drinking places) and local government education sector. The average annual wage level of the losing sectors was just over $45,000, while that of the gaining sectors was just over $33,000, which is almost 27 percent lower.

## International Trade

The international trade sector is one of the growth engines of Southern California. Over the period of 1980 through 2003, employment in this sector almost tripled, growing at an average annual rate of 4.4 percent. Over the same period, total nonfarm employment grew at an average annual rate of 1.3 percent. It is estimated that approximately 475,000 jobs in Southern California are associated with international trade.

The Los Angeles Customs District (LACD) includes the Port of Los Angeles, Port of Long Beach, Port Hueneme, and Los Angeles International Airport. Of the total value of imports entering the LACD, over 80 percent are transported by marine vessels. In the case of China (ranked first as trading partner for imports), over 90 percent of goods by value enter through the Ports of Los Angeles and Long Beach. In the case of Japan (second-ranked origin of commodities), 83 percent enters through the Ports. For Taiwan at third-ranked origin of commodities, the proportion is 75 percent. In the case of exports leaving the LACD, lower proportions of commodities (by value) are shipped through the Ports with a greater share shipped by air. About 50 percent of goods (by value) leave through the Ports. Combined, the Port of Los Angeles and Port of Long Beach rank as the third largest port complex in the world after Hong Kong and Singapore.

## "Logistics" Sector of the Economy

Freight movement is a system of related and integrated businesses with components of infrastructure, equipment, personnel, and information and is often referred to as the "logistics" sector. The purpose of this system is to achieve the distribution of goods and commodities between origins and destinations, or suppliers and consumers, in an increasingly global economy. The system includes maritime vessels, trucks, railroads, aircraft, pipelines, warehouses, and terminals, all of which work collectively and cooperatively. A recent study conducted for the New Jersey Department of Transportation demonstrated that employment associated with freight movement in the state accounted for the direct employment of over 484,000 workers, exceeding the number of jobs supported by manufacturing (New Jersey Department of Transportation, 2001).

According to a study sponsored by SCAG, a number of factors important to companies have become especially costly in Southern California: workers compensation insurance, electrical energy, and housing (Economics and Politics, Inc., 2004). For companies that have considerable location freedom, costs in Southern California are not attractive to their remaining or expanding in the region. For many companies, however, proximity to customers (the general population) and other factors such as facilities (ports and airports) and skilled workforce (motion picture industry) are of overriding importance. These

industries include the services sector, transportation and warehousing, and the motion picture industry.

The logistics and distribution sector of the economy consists largely of industries that are tied to port and airport functions. This sector, which involves receiving, processing, storing, and moving goods, includes the following industrial sectors: wholesale trade, truck transportation, support services for transportation, nonlocal couriers, and general warehousing, as well as air, rail, and water transportation. This group of industries has begun to provide large numbers of blue-collar jobs that have traditionally been found in manufacturing. They, thus, provide an alternative employment source to replace well-paying manufacturing jobs that have left and continue to leave the region.

Between 1990 and 2003, the group of industries comprising the logistics sector was one of the few service sectors of the Southern California economy that provided significant job growth. Additionally, the 2003 pay level in logistics ($45,314) exceeded that of manufacturing ($43,871) and construction ($40,439).

For more than the last decade, the nation's manufacturers and retailers have adopted "just-in-time" systems. This change in business practices has resulted in the distribution industry creating a series of large goods-holding centers, including in Southern California. Their location in Southern California is related to the fact that a high proportion of the nation's trade with Asian economies passes through the Ports of Los Angeles and Long Beach. It is anticipated that the volume of this trade will continue to increase, especially with the projected use of post-Panamax container ships. These wide and deep-draft vessels can be accommodated on the west coast only at the Ports of Los Angeles, Long Beach, and Seattle-Tacoma.

The recent *Trade Impact Study* prepared for the Alameda Corridor Transportation Authority (ACTA) and the Ports of Los Angeles and Long Beach examined the economic impacts of the trade that passes through the Ports in San Pedro Bay (ACTA, 2007). Impacts at the state, congressional district, and national levels were assessed. According to this study, state and local taxes generated throughout the nation from this trade activity grew from an estimated $6 billion in 1994 to more than $28 billion in 2005, of which $6.7 billion was in California. The value of containerized trade passing through the Ports of Los Angeles and Long Beach totaled about $256 billion, of which $62.5 billion was in California. From 1994 to 2005, the number of jobs associated with the trade activity generated by the Ports of Los Angeles and Long Beach tripled, rising from 1.1 million jobs nationally in 1994 to 3.3 million jobs in 2005. In 2005, about 886,000 jobs in California were related to port industries or port users. This report included the economic contributions of the logistics industries located at the Ports of Los Angeles and Long Beach, as well as at wholesalers, distributors, and retailers located off the Ports.

## Port of Los Angeles

The Port of Los Angeles handled almost 7.3 million TEUs in fiscal year (FY) 2005, down slightly from FY 2004, but up considerably from 6.7 million in FY 2003. The top five containerized imports in 2004 were furniture, apparel, toys and sporting goods, vehicles and vehicle parts, and electronic products. The top trading partners were China, Japan, Taiwan, Thailand, and South Korea. The top five containerized exports were wastepaper, synthetic resins, fabric (including raw cotton), animal feed, and metal scrap. Automobile shipments account for less than 2 percent of the value of the cargo that passes through the Port. The total value of the cargo in calendar year (CY) 2006 was $225.8 billion. The Port of Los Angeles is one of the world's largest trade gateways, and the economic

contributions to the regional economy are substantial. The Port facilitates tens of billions of dollars in industry sales each year in the Southern California region. These sales translate into jobs, wages and salaries, and state and local taxes. It is estimated that the Port supports, directly and indirectly, 259,000 full- and part-time jobs in Southern California and 1,353,500 jobs nationwide. The employment translates into $8.6 billion annually in regional wages and salaries and $1.4 billion annually in state and local taxes. Of the regional direct, indirect, and induced benefits connected to the Port, approximately 70 percent occur in Los Angeles County. The major ways in which the Port contributes to the local and regional economy is through port industries, port users, and port customers.

Port industries are businesses involved in the moving and handling of maritime cargo. It is estimated that for every dollar spent by port industries, another 97 cents is generated in indirect sales in the region. Port industries account for approximately 16,360 direct jobs (85 percent of which are trucking and warehousing jobs).

Port users are the biggest contributors to the economy. Port users are businesses that use the Port to receive imports or ship exports. Export manufacturers are among the major port users while others include local manufacturers who process imported, unfinished goods. Port users generate approximately $12.1 billion in sales and stimulate an additional $5.5 billion in local industry indirect sales. Local "respending" by workers employed by port users and the industries they affect amounts to approximately $4.1 billion. Each dollar of spending for port user goods and services produces about 79 cents of additional industry sales in the five-county region.

Port customers are the retail and other noncargo businesses in the Port. They are most important to communities near the Port as a source of jobs, recreation, and specialty consumer goods. Port customers contribute about $760 million to the local economy. Direct jobs associated with port customers numbered about 6,400 or roughly half of the jobs actually located in the Port. For every one of these port customer jobs, nearly 1.7 additional jobs are created elsewhere in the five-county region.

## Geographical Distribution of Port Workers

There are two major groups of workers associated with Port operations: longshoremen, and truck drivers or owner-operators. In the case of longshoremen, information was received from the International Longshore and Warehouse Union (ILWU) and Pacific Maritime Association (PMA) regarding the place of residence (by zip code) for both registered and casual workers at the Ports of Los Angeles and Long Beach, combined. For truck drivers, information was received from a major regional trucking company that also serves both Ports.

The database of longshoremen includes over 7,500 registered employees and over 8,500 casual employees. Based on information reported by payroll, the longshoremen are distributed among over 575 five-digit zip code areas in Southern California. However, almost 70 percent of the registered employees reside in 18 zip code areas close to the Ports, as described in Table 7.2-5. Employees are concentrated in the following communities: San Pedro (28 percent of registered and 21 percent of casual employees), Long Beach (10 percent of registered and 10 percent of casual employees), and Wilmington (10 percent of registered and 8 percent of casual employees).

**Table 7.2-5.** Geographical Distribution by Community of Longshoremen Working at the Ports of Los Angeles and Long Beach

| Community | Zip Code Area | Active Registered Employees (Percent of Total) | Active Casuals Employees (Percent of Total) |
|---|---|---|---|
| San Pedro | 90731 | 19.4 | 14.9 |
| Wilmington | 90744 | 9.6 | 7.7 |
| San Pedro | 90732 | 8.8 | 5.9 |
| Rancho Palos Verdes | 90275 | 4.9 | 3.0 |
| Carson | 90745 | 4.9 | 4.8 |
| Lomita | 90717 | 2.7 | 1.8 |
| Harbor City | 90710 | 2.5 | 1.9 |
| Long Beach | 90808 | 2.0 | 1.6 |
| Lakewood | 90712 | 1.8 | 1.5 |
| Long Beach | 90805 | 1.7 | 2.2 |
| Long Beach | 90807 | 1.5 | 1.1 |
| Lakewood | 90713 | 1.5 | 1.2 |
| Long Beach | 90815 | 1.4 | 1.1 |
| Carson | 90746 | 1.4 | 1.5 |
| Long Beach | 90806 | 1.3 | 1.2 |
| Long Beach | 90810 | 1.3 | 1.7 |
| Torrance | 90501 | 1.1 | 1.5 |
| Long Beach | 90802 | 1.0 | 1.0 |

Source: ILWU, 2005

The database of truck drivers contains just over 900 records, providing the zip code on file with the payroll department for each employee. The truck drivers are distributed among just over 270 five-digit zip code areas spread throughout Southern California. The communities containing the highest concentration of drivers are aligned in a corridor extending northward from the area surrounding the Port to the central section of the City of Los Angeles. Communities with noticeable concentrations include Long Beach (4.9 percent of the total), San Pedro and Wilmington (3.4 percent), Bell (3.5 percent), Southgate (2.8 percent), and central Los Angeles (5.4 percent). There is also a concentration in the communities of Calexico, El Centro, and San Ysidro in southern San Diego County.

## Occupation by Place of Residence

Information regarding occupation (aggregated to industrial sectors similar to those addressed earlier) is contained in the 2000 decennial census. The definition of the categories varies somewhat from those presented earlier; however, these differences are minor. The occupational breakdown (for the employed civilian population 16 years of

age and over) is available for small geographical areas, such as the zip code areas presented in Table 7.2-6. The zip code areas selected are those in the vicinity of the Port for the communities of Wilmington, San Pedro, and Harbor City, and the cities of Torrance, Carson, and Long Beach.

The proportion engaged in manufacturing in 2000 was 14.8 percent for Los Angeles County and 13.2 percent for the City of Los Angeles. Four of the small areas surrounding the Port had in excess of 20 percent of the employed persons working in manufacturing. They were Wilmington, Carson, Harbor City, and part of the City of Long Beach. All of the small areas have much higher proportions of their residents employed in the transportation and warehousing sector of the economy than is the case for Los Angeles County and the City of Los Angeles. Several of the areas, especially Wilmington, San Pedro, Carson, and part of Long Beach, have proportions that are twice that of the larger areas, or more.

#### Income

The median household income reported in the 2000 Census for Los Angeles County was just over $42,000. Riverside and San Bernardino counties had very similar values, while the value for Orange County was $58,800 and that for Ventura County was $59,600. By comparison, the median household income for the City of Los Angeles was $36,600 (Table 7.2-7). Of total aggregate income, by far the largest proportion (between 69 and 77 percent) is contributed by wage and salary income at the county level.

Median family income varied between $46,500 and $65,300 across the five counties and was $39,900 for the City of Los Angeles. For the zip code areas near the Port, values exhibited a wider range: between $19,600 and $73,500. The median family income was $39,100 for San Pedro and $30,800 for Wilmington.

### 7.2.1.2 Population

The number of residents of the five counties of Southern California increased by almost 3.4 million between 1990 and 2005 at an average annual rate of 1.4 percent. The most rapid rate of change took place in Riverside County (3.2 percent annually) and San Bernardino County (2.1 percent annually). While the largest numeric increase occurred in Los Angeles County (almost 1.4 million persons), the rate of change was the least of the counties (1.0 percent annually) (Table 7.2-8).

The population of the City of Los Angeles increased over the same time, but at a substantially slower pace. The number of residents increased by over 472,000, an average annual rate of 0.8 percent. A number of the cities in the South Bay section of Southern California saw population increase at a rate greater than that of the City of Los Angeles: Signal Hill (1.8 percent annually), Carson (1.1 percent annually), and Lakewood and Long Beach (0.9 percent annually). The community plan areas near the Port experienced only modest population gains.

Population projections prepared by SCAG forecast a compound rate of growth over the 35-year period between 2010 and 2045 of less than 1 percent annually for Southern California. The region is projected to increase by over 6.3 million residents over the period. The highest growth rates are projected for Riverside and San Bernardino counties. The population of the City of Los Angeles is projected to increase by almost 380,000 residents at an annual average rate of 0.3 percent (Table 7.2-9).

**Table 7.2-6.** Percentage Occupational Breakdown by Place of Residence (Zip Code Area), 2000
(Employed civilian population 16 years and over)

| | 90501 Torrance | 90502 Torrance | 90710 Harbor City | 90731 San Pedro | 90732 San Pedro | 90744 Wilmington | 90745 Carson | 90802 Long Beach | 90806 Long Beach | 90810 Long Beach | 90813 Long Beach |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Percent by Occupation: | | | | | | | | | | | |
| Agriculture, forestry, fishing and hunting, and mining: | 0.19% | 0.23% | 0.05% | 0.58% | 0.36% | 0.63% | 0.37% | 0.31% | 0.58% | 0.68% | 0.42% |
| Agriculture, forestry, fishing and hunting | 0.10% | 0.23% | 0.05% | 0.53% | 0.36% | 0.48% | 0.17% | 0.21% | 0.10% | 0.54% | 0.18% |
| Mining | 0.09% | 0.00% | 0.00% | 0.05% | 0.00% | 0.15% | 0.20% | 0.09% | 0.48% | 0.14% | 0.24% |
| Construction | 5.98% | 3.69% | 3.86% | 6.63% | 4.22% | 6.89% | 3.45% | 4.88% | 4.73% | 5.39% | 8.79% |
| Manufacturing | 16.69% | 18.43% | 20.31% | 12.77% | 12.95% | 22.24% | 22.16% | 12.55% | 15.29% | 20.70% | 19.10% |
| Wholesale trade | 4.42% | 5.69% | 3.81% | 4.07% | 4.31% | 6.16% | 4.64% | 4.00% | 4.30% | 5.55% | 4.13% |
| Retail trade | 13.00% | 10.50% | 10.75% | 10.32% | 8.56% | 9.83% | 12.23% | 9.96% | 10.60% | 9.66% | 9.96% |
| Transportation and warehousing, and utilities: | 7.25% | 7.03% | 7.35% | 11.33% | 13.08% | 8.47% | 8.49% | 6.11% | 8.52% | 9.27% | 4.92% |
| Transportation and warehousing | 6.88% | 6.15% | 6.88% | 10.80% | 12.71% | 8.06% | 8.14% | 5.68% | 7.71% | 8.74% | 4.63% |
| Utilities | 0.38% | 0.88% | 0.47% | 0.52% | 0.36% | 0.42% | 0.35% | 0.44% | 0.80% | 0.53% | 0.29% |
| Information | 2.17% | 3.89% | 2.08% | 2.52% | 3.00% | 2.18% | 2.58% | 4.17% | 2.98% | 2.14% | 1.70% |
| Finance, insurance, real estate and rental/leasing | 5.01% | 6.85% | 5.95% | 5.28% | 6.49% | 3.44% | 4.86% | 5.45% | 4.45% | 3.78% | 3.51% |
| Finance and insurance | 3.06% | 4.50% | 3.99% | 3.19% | 4.51% | 1.95% | 3.23% | 3.25% | 2.98% | 2.81% | 1.55% |
| Real estate and rental/leasing | 1.95% | 2.35% | 1.95% | 2.09% | 1.98% | 1.49% | 1.63% | 2.20% | 1.48% | 0.97% | 1.95% |
| Professional, scientific, management, administrative, and waste management services: | 12.33% | 7.59% | 9.52% | 9.36% | 10.53% | 8.83% | 8.71% | 11.14% | 9.35% | 8.28% | 9.67% |
| Professional, scientific, and technical services | 5.46% | 4.23% | 3.05% | 4.10% | 8.33% | 1.70% | 4.08% | 5.13% | 3.45% | 2.48% | 2.15% |
| Management of companies and enterprises | 0.14% | 0.09% | 0.00% | 0.00% | 0.00% | 0.08% | 0.22% | 0.10% | 0.03% | 0.05% | 0.00% |
| Administrative and support and waste management services | 6.72% | 3.27% | 6.47% | 5.26% | 2.20% | 7.06% | 4.41% | 5.91% | 5.86% | 5.74% | 7.52% |

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**Table 7.2-6.** Occupational Breakdown by Place of Residence, 2000 (continued)
(Employed Civilian Population 16 Years and Over)

| | 90501 Torrance | 90502 Torrance | 90710 Harbor City | 90731 San Pedro | 90732 San Pedro | 90744 Wilmington | 90745 Carson | 90802 Long Beach | 90806 Long Beach | 90810 Long Beach | 90813 Long Beach |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Percent by Occupation: | | | | | | | | | | | |
| Educational, health, and social services: | 16.35% | 18.39% | 18.39% | 18.38% | 21.94% | 12.42% | 18.25% | 20.97% | 20.61% | 19.07% | 12.21% |
| Educational services | 6.15% | 7.53% | 6.74% | 8.70% | 10.89% | 5.37% | 5.40% | 9.05% | 6.78% | 5.51% | 3.94% |
| Health care and social assistance | 10.20% | 10.87% | 11.65% | 9.68% | 11.05% | 7.05% | 12.85% | 11.92% | 13.82% | 13.57% | 8.28% |
| Arts, entertainment, recreation, accommodation, and food services: | 8.70% | 7.13% | 7.94% | 7.30% | 5.18% | 9.35% | 6.63% | 12.15% | 8.64% | 6.91% | 14.52% |
| Arts, entertainment, and recreation | 1.47% | 1.77% | 1.66% | 2.06% | 1.58% | 1.12% | 1.05% | 2.79% | 1.87% | 1.38% | 1.34% |
| Accommodation and food services | 7.24% | 5.36% | 6.28% | 5.24% | 3.61% | 8.23% | 5.58% | 9.36% | 6.77% | 5.53% | 13.18% |
| Other services (except public administration) | 5.13% | 4.27% | 6.11% | 7.31% | 4.93% | 7.90% | 4.78% | 5.61% | 6.09% | 5.83% | 9.06% |
| Public administration | 2.78% | 6.30% | 3.89% | 4.15% | 4.45% | 1.65% | 2.85% | 2.70% | 3.88% | 2.74% | 2.01% |
| Source: Census, 2005 | | | | | | | | | | | |

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**Table 7.2-7.** Household and Family Income by Source of Income

| | Los Angeles County | Orange County | Riverside County | San Bernardino County | Ventura County | City of Los Angeles |
|---|---|---|---|---|---|---|
| Median household income in 1999 | 42,189 | 58,820 | 42,887 | 42,066 | 59,666 | 36,687 |
| Median family income in 1999 | 46,452 | 64,611 | 48,409 | 46,574 | 65,285 | 39,942 |
| Per capita income in 1999 | 20,683 | 25,826 | 18,689 | 16,856 | 24,600 | 20,671 |
| Contribution to total aggregate income from: | | | | | | |
| Wage or salary income | 74.39% | 76.05% | 69.25% | 76.90% | 74.67% | 72.76% |
| Self-employment income | 8.28% | 7.76% | 6.89% | 6.03% | 8.20% | 9.60% |
| Interest, dividends, or net rental income | 7.22% | 7.48% | 8.24% | 4.15% | 6.92% | 8.00% |
| Social Security | 3.54% | 3.16% | 6.10% | 4.55% | 3.54% | 3.40% |
| Supplemental Security Income | 0.65% | 0.33% | 0.59% | 0.74% | 0.35% | 0.72% |
| Public assistance income | 0.51% | 0.16% | 0.36% | 0.60% | 0.16% | 0.56% |
| Retirement income | 3.70% | 3.59% | 6.15% | 4.96% | 4.55% | 3.24% |
| Other types of income | 1.72% | 1.47% | 2.44% | 2.07% | 1.62% | 1.73% |

| | 90501 Torrance | 90502 Torrance | 90710 Harbor City | 90731 San Pedro | 90732 San Pedro | 90744 Wilmington | 90745 Carson | 90802 Long Beach | 90806 Long Beach | 90810 Long Beach | 90813 Long Beach |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Median household income in 1999 | 42,117 | 48,601 | 42,299 | 35,910 | 63,614 | 30,259 | 50,610 | 25,860 | 31,488 | 36,966 | 20,015 |
| Median family income in 1999 | 47,076 | 51,829 | 45,854 | 39,057 | 73,461 | 30,800 | 53,218 | 26,865 | 31,050 | 40,119 | 19,594 |
| Per capita income in 1999 | 18,784 | 19,749 | 18,425 | 18,043 | 30,842 | 11,600 | 15,665 | 17,668 | 13,412 | 12,848 | 7,567 |
| Contribution to total aggregate income from: | | | | | | | | | | | |
| Wage or salary income | 78.37% | 79.86% | 76.84% | 76.90% | 73.53% | 80.88% | 80.63% | 79.94% | 79.18% | 77.52% | 76.56% |
| Self-employment income | 7.48% | 5.51% | 6.81% | 6.65% | 5.58% | 4.90% | 3.26% | 5.03% | 4.79% | 2.54% | 3.95% |
| Interest, dividends, or net rental income | 4.32% | 3.08% | 4.43% | 4.41% | 7.92% | 2.76% | 3.07% | 3.53% | 3.92% | 3.48% | 1.75% |
| Social Security | 3.51% | 3.84% | 4.54% | 4.09% | 4.75% | 4.31% | 4.43% | 3.85% | 2.95% | 4.64% | 3.34% |
| Supplemental Security Income | 0.69% | 0.55% | 0.74% | 0.67% | 0.33% | 0.77% | 1.09% | 1.49% | 1.24% | 1.09% | 3.00% |
| Public assistance income | 0.50% | 0.34% | 0.42% | 0.81% | 0.07% | 1.20% | 0.44% | 0.98% | 1.98% | 1.03% | 4.65% |
| Retirement income | 3.79% | 5.55% | 4.69% | 4.35% | 6.32% | 3.04% | 5.09% | 3.31% | 3.93% | 7.42% | 2.77% |
| Other types of income | 1.33% | 1.28% | 1.53% | 2.12% | 1.50% | 2.14% | 1.99% | 1.87% | 2.00% | 2.26% | 3.99% |

Source: Census, 2005

**Table 7.2-8.** Population by Region, County, Place, and Community Plan Area (1990-2005)

| | 4/1/1990 (Census) | 4/1/2000 (Census) | 1/1/2005 (Estimate) | Numeric | Percent | Average Annual Percent |
|---|---|---|---|---|---|---|
| Southern California (Five-County Region) | 14,531,529 | 16,373,645 | 17,919,625 | 3,388,096 | 23.32% | 1.41% |
| Los Angeles County | 8,863,052 | 9,519,338 | 10,226,506 | 1,363,454 | 15.38% | 0.96% |
| Orange County | 2,410,668 | 2,846,289 | 3,056,865 | 646,197 | 26.81% | 1.60% |
| Riverside County | 1,170,413 | 1,545,387 | 1,877,000 | 706,587 | 60.37% | 3.20% |
| San Bernardino County | 1,418,380 | 1,709,434 | 1,946,202 | 527,822 | 37.21% | 2.13% |
| Ventura County | 669,016 | 753,197 | 813,052 | 144,036 | 21.53% | 1.31% |
| City of Los Angeles | 3,485,398 | 3,694,820 | 3,957,875 | 472,477 | 13.56% | 0.85% |
| Harbor Area Planning Commission | 182,054 | 193,168 | 192,912 | 10,858 | 5.96% | 0.45% |
| Community Plan Area: | | | | | | |
| Harbor Gateway | 36,011 | 39,685 | 39,738 | 3,727 | 10.35% | 0.76% |
| Port of Los Angeles | 1,785 | 1,804 | 1,844 | 59 | 3.31% | 0.25% |
| San Pedro | 74,175 | 76,173 | 76,756 | 2,581 | 3.48% | 0.26% |
| Wilmington-Harbor City | 70,083 | 75,506 | 74,574 | 4,491 | 6.41% | 0.48% |
| Incorporated Cities: | | | | | | |
| Carson | 83,995 | 89,730 | 98,329 | 14,334 | 17.07% | 1.06% |
| Lakewood | 73,553 | 79,345 | 83,674 | 10,121 | 13.76% | 0.86% |
| Long Beach | 429,321 | 461,522 | 491,564 | 62,243 | 14.50% | 0.91% |
| Palos Verdes Estates | 13,512 | 13,340 | 14,208 | 696 | 5.15% | 0.34% |
| Rancho Palos Verdes | 41,667 | 41,145 | 43,525 | 1,858 | 4.46% | 0.29% |
| Redondo Beach | 60,167 | 63,261 | 67,325 | 7,158 | 11.90% | 0.75% |
| Rolling Hills | 1,871 | 1,871 | 1,983 | 112 | 5.99% | 0.39% |
| Rolling Hills Estates | 7,789 | 7,676 | 8,191 | 402 | 5.16% | 0.34% |
| Signal Hill | 8,371 | 9,333 | 10,951 | 2,580 | 30.82% | 1.81% |
| Torrance | 133,107 | 137,946 | 147,405 | 14,298 | 10.74% | 0.68% |

Source: Department of Finance (DOF), 2005; LADCP, 2005

**Table 7.2-9.** Population Projections for Region, County, and Place (2005-2038)

| | 2010 | 2015 | 2020 | 2025 | 2030 | 2045 | Change (2005-2038) | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | Numeric | Percent | Average Annual Percent |
| **Southern California (Five-County Region)** | 19,019,636 | 19,981,038 | 20,906,661 | 21,784,645 | 22,620,923 | 25,391,975 | 6,372,339 | 33.50% | 0.83% |
| **County** | | | | | | | | | |
| Los Angeles County | 10,718,007 | 11,113,772 | 11,501,884 | 11,870,934 | 12,221,799 | 13,337,851 | 2,619,844 | 24.44% | 0.63% |
| Orange County | 3,291,628 | 3,369,745 | 3,433,609 | 3,494,394 | 3,552,742 | 3,733,697 | 442,069 | 13.43% | 0.36% |
| Riverside County | 2,085,432 | 2,370,526 | 2,644,278 | 2,900,563 | 3,143,468 | 4,001,191 | 1,915,759 | 91.86% | 1.88% |
| San Bernardino County | 2,059,420 | 2,229,700 | 2,397,709 | 2,558,729 | 2,713,149 | 3,234,608 | 1,175,188 | 57.06% | 1.30% |
| Ventura County | 865,149 | 897,295 | 929,181 | 960,025 | 989,765 | 1,084,628 | 219,479 | 25.37% | 0.65% |
| Los Angeles | 4,090,125 | 4,147,285 | 4,203,702 | 4,257,771 | 4,309,625 | 4,469,007 | 378,882 | 9.26% | 0.25% |
| Carson | 97,532 | 100,628 | 103,678 | 106,604 | 109,412 | 118,288 | 20,756 | 21.28% | 0.55% |
| Palos Verdes Estates | 13,997 | 14,029 | 14,058 | 14,088 | 14,116 | 14,200 | 203 | 1.45% | 0.04% |
| Rancho Palos Verdes | 43,761 | 44,662 | 45,548 | 46,399 | 47,217 | 49,759 | 5,998 | 13.71% | 0.37% |
| Redondo Beach | 69,076 | 71,950 | 74,783 | 77,501 | 80,107 | 88,463 | 19,387 | 28.07% | 0.71% |
| Rolling Hills | 1,958 | 2,016 | 2,074 | 2,129 | 2,182 | 2,349 | 391 | 19.97% | 0.52% |
| Rolling Hills Estates | 8,131 | 8,162 | 8,192 | 8,221 | 8,248 | 8,330 | 199 | 2.44% | 0.07% |
| Torrance | 145,129 | 148,227 | 151,286 | 154,215 | 157,029 | 165,783 | 20,654 | 14.23% | 0.38% |
| Lakewood | 83,747 | 84,419 | 85,083 | 85,719 | 86,325 | 88,169 | 4,422 | 5.28% | 0.15% |
| Long Beach | 503,450 | 518,627 | 533,590 | 547,937 | 561,694 | 605,072 | 101,622 | 20.19% | 0.53% |
| Signal Hill | 10,558 | 11,415 | 12,260 | 13,070 | 13,847 | 16,466 | 5,908 | 55.96% | 1.28% |

### 7.2.1.3 Housing

Aspects of housing described in this section include construction trends, characteristics of the existing housing stock, and trends in housing prices.

#### Housing Construction

Housing construction typically exhibits a cyclical pattern in response to local, regional, and national economic conditions. In the case of Southern California, residential construction experienced periods of expansion between 1967 and 1972, 1975 and 1977, 1982 and 1986, and 1995 to 2004 with periods of decline in between. The decline in activity from 1986 through 1993 was in response to the economic dislocation associated with reductions in military defense spending and base closures. From a level of over 160,500 units authorized for construction in 1986, the number fell to just over 28,000 in 1993 (Figure 7.2-3). By 2004, the number of units authorized for construction had reached almost 90,000.

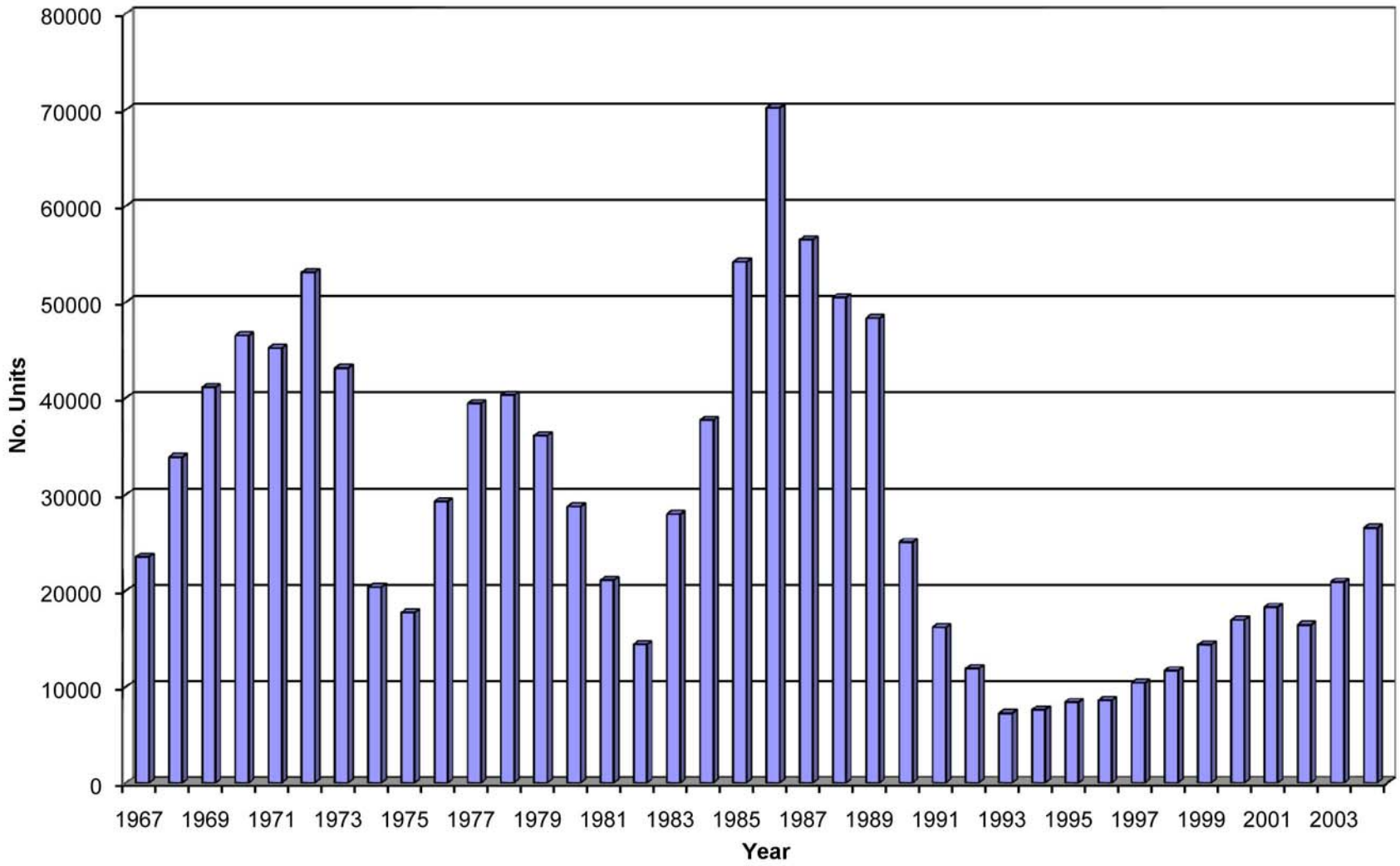
Over the 38-year period from 1967 to 2004, almost 2.8 million housing units were issued permits for construction in Southern California. Of these units, the majority were constructed in Los Angeles County (39.4 percent of the regional total), followed by Orange County (with 22.6 percent of the total) and Riverside County (with 17.7 percent of the total).

The contribution made to the new housing constructed in Southern California by each of the individual counties has changed noticeably over time, as shown in Figure 7.2-4. At the start of the reporting period, Los Angeles County contributed over 50 percent of all new residential construction in Southern California. However, this share declined to less than 30 percent by the end of the reporting period. In contrast, the Riverside County share increased over the 38-year period from about 5 percent to almost 40 percent. Likewise, the San Bernardino County contribution rose from around 6 percent to about 20 percent.

#### Housing Characteristics

In Los Angeles County, the proportion of owner-occupied housing units in 2000 was almost 48 percent; 52 percent were renter occupied. For the City of Los Angeles, the corresponding shares were 39 percent and 61 percent. Within the zip code areas near the Port, the percentage of owner-occupied housing units varies from high values for western San Pedro and Carson to low values for Wilmington and areas of Long Beach (Table 7.2-10).

There are a number of similarities between San Pedro and Wilmington with respect to the characteristics of housing units and their occupants. The proportion of renters is high (68 percent for San Pedro and 61 percent for Wilmington). There are relatively few apartment buildings containing 10 or more units. The median age of the housing is 1960 and 1961, respectively. Homeowners are well established, generally having resided in the same house since 1988 in San Pedro and since 1985 in Wilmington. The housing quality is somewhat lower in Wilmington based on a comparison of the proportion of housing units lacking adequate plumbing and kitchen facilities (Table 7.2-10).




*Source:* SCAG 2005; Census 2005

**Figure 7.2-3**
**Housing Units Permitted in Los Angeles County (1967-2004)**
**Berth 97-109 Container Terminal Project EIS/EIR**

Source: TraPac, 2007

CH2MHILL

TB092007001SCO180121.01.04 CS_housing.ai 10/07

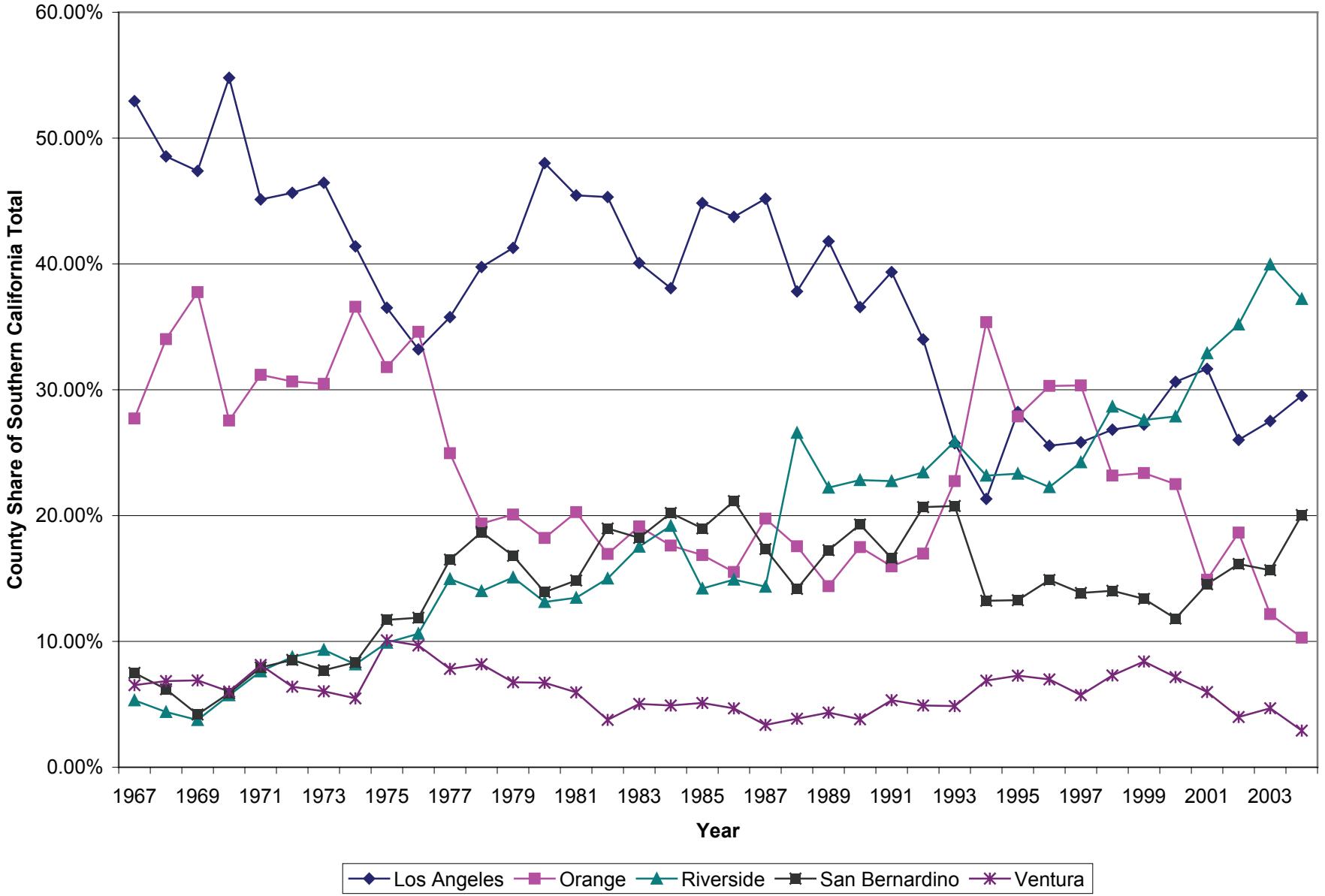



**Figure 7.2-4**
**County Shares of Total Southern California New Housing (1967-2004)**
**Berth 97-109 Container Terminal Project EIS/EIR**

CH2MHILL

TB092007001SCO180121.01.04 CS_newhousing ai 12/07

1

**Table 7.2-10.** Housing Characteristics in 2000

| | Los Angeles County | City of Los Angeles | Zip Code Area | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | 90501 Torrance | 90502 Torrance | 90710 Harbor City | 90731 San Pedro | 90732 San Pedro | 90744 Wilmington | 90745 Carson | 90802 Long Beach | 90806 Long Beach | 90810 Long Beach | 90813 Long Beach |
| Total housing units | 3,270,909 | 1,337,668 | 14,367 | 5,801 | 8,603 | 22,522 | 9,501 | 14,600 | 15,145 | 20,442 | 15,528 | 9,518 | 17,745 |
| Total occupied housing units | 3,133,774 | 1,275,358 | 13,810 | 5,593 | 8,351 | 21,370 | 8,746 | 13,954 | 14,671 | 18,838 | 14,575 | 9,140 | 16,436 |
| Percent owner-occupied | 47.86% | 38.56% | 42.76% | 69.41% | 55.53% | 31.86% | 73.16% | 38.79% | 74.02% | 19.52% | 36.83% | 56.73% | 12.36% |
| Percent renter-occupied | 52.14% | 61.44% | 57.24% | 30.59% | 44.47% | 68.14% | 26.84% | 61.21% | 25.98% | 80.48% | 63.17% | 43.27% | 87.64% |
| Vacancy rate | 4.38% | 4.89% | 4.03% | 3.72% | 3.02% | 5.39% | 8.63% | 4.63% | 3.23% | 8.51% | 6.54% | 4.14% | 7.96% |
| Median number of rooms per unit | 4.2 | 3.7 | 4.0 | 4.4 | 4.2 | 3.9 | 5.1 | 3.3 | 4.7 | 2.8 | 3.6 | 4.1 | 2.8 |
| Number of units in structure | | | | | | | | | | | | | |
| Percent single detached units | 48.72% | 39.23% | 47.52% | 52.58% | 43.15% | 34.95% | 52.80% | 43.25% | 63.61% | 4.33% | 36.86% | 64.69% | 16.53% |
| Percent single attached units | 7.39% | 6.56% | 8.25% | 14.46% | 6.88% | 8.85% | 16.82% | 9.01% | 12.12% | 2.21% | 9.12% | 6.79% | 6.16% |
| Percent 2 units | 2.74% | 3.20% | 2.74% | 0.53% | 1.69% | 5.70% | 0.43% | 3.35% | 1.33% | 2.74% | 5.84% | 2.51% | 6.62% |
| Percent 3 or 4 units | 6.05% | 6.45% | 8.52% | 2.69% | 5.31% | 20.88% | 5.17% | 8.95% | 2.03% | 7.86% | 12.91% | 5.65% | 16.69% |
| Percent 5 to 9 units | 8.23% | 9.44% | 10.72% | 7.17% | 7.22% | 11.39% | 8.22% | 10.72% | 2.26% | 12.68% | 17.48% | 5.64% | 17.34% |
| Percent 10 to 19 units | 8.05% | 10.36% | 7.73% | 1.45% | 11.51% | 7.65% | 2.94% | 8.16% | 1.67% | 26.21% | 8.48% | 3.43% | 22.27% |
| Percent 20 to 49 units | 8.85% | 12.83% | 7.99% | 4.90% | 5.14% | 5.40% | 5.64% | 7.26% | 2.95% | 20.48% | 5.40% | 3.53% | 8.43% |
| Percent 50 or more units | 8.25% | 11.25% | 3.79% | 8.77% | 6.46% | 4.76% | 5.44% | 6.42% | 4.23% | 22.86% | 3.62% | 4.50% | 5.71% |
| Percent mobile home | 1.63% | 0.61% | 2.74% | 7.45% | 12.41% | 0.16% | 2.54% | 1.99% | 9.75% | 0.07% | 0.24% | 3.18% | 0.26% |
| Percent boat, recreational vehicle (RV), van, etc. | 0.10% | 0.06% | 0.00% | 0.00% | 0.23% | 0.25% | 0.00% | 0.89% | 0.04% | 0.54% | 0.05% | 0.08% | 0.00% |
| Year structure built | | | | | | | | | | | | | |
| Percent Built 1999 to March 2000 | 0.69% | 0.54% | 0.81% | 0.14% | 2.71% | 0.46% | 0.16% | 0.76% | 1.28% | 0.17% | 0.41% | 0.43% | 0.60% |
| Percent Built 1995 to 1998 | 2.01% | 1.90% | 2.18% | 2.93% | 5.95% | 1.30% | 2.95% | 1.67% | 1.80% | 0.92% | 1.42% | 0.89% | 2.09% |
| Percent Built 1990 to 1994 | 4.15% | 3.72% | 5.46% | 4.21% | 2.58% | 4.40% | 3.20% | 3.41% | 3.88% | 6.12% | 1.89% | 1.18% | 4.87% |
| Percent Built 1980 to 1989 | 12.33% | 11.09% | 9.68% | 17.95% | 12.48% | 12.21% | 19.76% | 12.49% | 11.86% | 11.45% | 11.30% | 4.41% | 14.16% |
| Percent Built 1970 to 1979 | 15.58% | 15.02% | 12.92% | 23.36% | 29.44% | 15.16% | 24.71% | 15.49% | 16.08% | 12.49% | 11.50% | 14.30% | 15.50% |
| Percent Built 1960 to 1969 | 17.83% | 17.53% | 22.15% | 19.70% | 24.31% | 17.18% | 14.74% | 18.43% | 30.21% | 16.91% | 12.93% | 15.58% | 19.12% |
| Percent Built 1950 to 1959 | 22.27% | 20.49% | 23.26% | 24.41% | 12.00% | 16.05% | 19.06% | 21.99% | 24.56% | 14.81% | 18.23% | 24.30% | 14.36% |
| Percent Built 1940 to 1949 | 12.25% | 12.99% | 12.06% | 3.90% | 6.89% | 13.04% | 6.69% | 11.80% | 7.09% | 10.10% | 21.32% | 28.48% | 10.53% |
| Percent Built 1939 or earlier | 12.90% | 16.71% | 11.48% | 3.41% | 3.64% | 20.20% | 8.74% | 13.96% | 3.24% | 27.03% | 21.01% | 10.42% | 18.77% |
| Housing units: median year structure built | 1961 | 1960 | 1961 | 1969 | 1971 | 1960 | 1970 | 1961 | 1965 | 1959 | 1954 | 1955 | 1963 |

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**Table 7.2-10.** Housing Characteristics in 2000 (continued)

| | Los Angeles County | City of Los Angeles | Zip Code Area | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | 90501 Torrance | 90502 Torrance | 90710 Harbor City | 90731 San Pedro | 90732 San Pedro | 90744 Wilmington | 90745 Carson | 90802 Long Beach | 90806 Long Beach | 90810 Long Beach | 90813 Long Beach |
| Median year householder moved into unit: Total | 1995 | 1996 | 1996 | 1994 | 1995 | 1996 | 1993 | 1996 | 1992 | 1998 | 1996 | 1993 | 1997 |
| Median year householder moved into unit: Owner occupied | 1989 | 1988 | 1990 | 1990 | 1990 | 1988 | 1988 | 1985 | 1988 | 1996 | 1993 | 1986 | 1993 |
| Median year householder moved into unit: Renter occupied | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1998 | 1997 | 1997 | 1998 |
| Percent lacking complete plumbing facilities | 1.11% | 1.45% | 1.11% | 0.55% | 1.28% | 0.90% | 0.23% | 1.90% | 0.65% | 1.58% | 1.59% | 1.22% | 1.89% |
| Percent lacking complete kitchen facilities | 1.75% | 2.41% | 1.77% | 0.88% | 1.00% | 1.92% | 0.95% | 2.60% | 0.72% | 2.87% | 1.78% | 1.65% | 2.62% |
| Source: Census, 2005 | | | | | | | | | | | | | |

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## Residential Property Values

Over the period of 1990 to 2003, the median home price (for existing homes) in Los Angeles County increased from $251,000 to $375,700, which is a rise of just over 49 percent at an average annual rate of 3.1 percent. Median prices in the other four counties of Southern California also rose: 4.1 percent annually in Orange County, 3.9 percent annually in Ventura County, 3.8 percent annually in Riverside County, and 3.4 percent annually in San Bernardino County. This rate of increase in home prices, however, did not take place uniformly over the period. Over the 5-year period of 1990 to 1995, each of the Southern California counties experienced declines in home values. The greatest decline took place in Los Angeles County where median home values fell by 12.5 percent (2.6 percent annually). Over the 1995 to 2000 period, prices increased at rates exceeding 7 percent annually (with the exception of Los Angeles County). Over the period 2000 to 2003, annual growth rates exceeded 10 percent annually in all counties. The trends in prices of new homes mirrored closely those for existing homes (Table 7.2-11).

Median home prices at the community level also increased at high rates as can be seen from the information presented in Table 7.2-12. For the period of 1997 to 2002, average annual growth rates in excess of 10 percent were experienced in a number of communities in the South Bay area of Los Angeles County: Wilmington, San Pedro, Carson, Hawthorne, Hermosa Beach, Lawndale, and Lomita. Home prices increased in all communities regardless of the price level at the beginning of the period. However, not surprisingly, those communities with the highest growth rates were communities with home prices that were among the lowest. Median home prices in Wilmington increased from $103,500 in 1997 to $196,000 in 2002 (at an average annual rate of 13.6 percent) and those in San Pedro rose from $164,000 to $320,000 over the same period (at an average annual rate of 14.3 percent). Median single-family residence sales prices over the period of 1993 to 2004 for homes located in the zip code areas in the immediate vicinity of the Port rose, on average, between 8 and 9 percent annually.

The first 5 years of this period showed modest and negative growth. The last 5 years, however, exhibited rapid growth with home prices more than doubling, and registering average annual rates of change in excess of 20 percent. Figure 7.2-5 illustrates the year-to-previous-year change in median home price in San Pedro and Wilmington.

**Table 7.2-11.** Home Prices by County (1990-2003)

| **Existing Homes** | | | | | |
|---|---|---|---|---|---|
| Year | County | | | | |
| | Los Angeles | Orange | Riverside | San Bernardino | Ventura |
| 1990 | 251,000 | 252,241 | 146,014 | 126,261 | 243,035 |
| 1991 | 252,915 | 251,004 | 149,181 | 131,920 | 238,657 |
| 1992 | 247,377 | 246,730 | 152,182 | 132,197 | 235,427 |
| 1993 | 237,198 | 241,622 | 143,890 | 129,880 | 230,744 |
| 1994 | 232,165 | 240,706 | 141,936 | 127,123 | 226,505 |
| 1995 | 219,735 | 234,187 | 135,489 | 120,660 | 225,846 |
| 1996 | 217,747 | 231,683 | 135,663 | 119,954 | 223,801 |
| 1997 | 230,908 | 243,081 | 143,106 | 121,364 | 227,862 |
| 1998 | 247,593 | 260,191 | 152,852 | 127,503 | 245,510 |
| 1999 | 252,392 | 271,714 | 154,500 | 134,251 | 259,257 |
| 2000 | 270,912 | 297,768 | 167,380 | 144,499 | 280,754 |
| 2001 | 285,477 | 319,801 | 182,371 | 153,963 | 299,626 |
| 2002 | 328,015 | 370,125 | 205,814 | 169,847 | 344,970 |
| 2003 | 374,666 | 426,427 | 237,225 | 195,315 | 400,027 |
| Change (1990-1995) | | | | | |
| Percent | -12.46% | -7.16% | -7.21% | -4.44% | -7.07% |
| Average Annual Percent | -2.63% | -1.41% | -1.22% | -0.85% | -1.36% |
| Change (1995-2000) | | | | | |
| Percent | 23.29% | 84.06% | 74.86% | 62.82% | 78.74% |
| Average Annual Percent | 4.28% | 9.11% | 8.31% | 7.21% | 8.65% |
| Change (2000-2003) | | | | | |
| Percent | 38.30% | 43.21% | 41.73% | 35.17% | 42.48% |
| Average Annual Percent | 11.41% | 12.72% | 12.33% | 10.57% | 12.53% |
| Change (1990-2003) | | | | | |
| Percent | 49.27% | 69.06% | 62.47% | 54.69% | 64.60% |
| Average Annual Percent | 3.13% | 4.12% | 3.80% | 3.41% | 3.91% |

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**Table 7.2-11.** Home Prices by County (1990-2003) (continued)

| **New Homes** | | | | | |
|---|---|---|---|---|---|
| Year | County | | | | |
| | Los Angeles | Orange | Riverside | San Bernardino | Ventura |
| 1990 | 223,726 | 268,113 | 170,100 | 169,856 | 284,268 |
| 1991 | 224,719 | 265,913 | 166,649 | 175,110 | 266,937 |
| 1992 | 207,111 | 259,212 | 158,320 | 162,921 | 256,765 |
| 1993 | 201,948 | 246,540 | 151,335 | 150,632 | 255,759 |
| 1994 | 211,785 | 258,449 | 152,804 | 149,325 | 245,503 |
| 1995 | 221,207 | 250,416 | 151,890 | 153,443 | 249,088 |
| 1996 | 245,466 | 254,471 | 159,987 | 153,378 | 247,597 |
| 1997 | 252,662 | 272,376 | 166,339 | 167,513 | 265,581 |
| 1998 | 259,870 | 315,761 | 186,782 | 175,823 | 294,692 |
| 1999 | 294,461 | 354,342 | 215,743 | 194,836 | 346,736 |
| 2000 | 306,924 | 404,611 | 248,156 | 211,863 | 360,888 |
| 2001 | 332,257 | 436,923 | 250,003 | 222,583 | 380,329 |
| 2002 | 362,541 | 474,852 | 268,878 | 240,382 | 423,091 |
| 2003 | 417,695 | 450,365 | 295,048 | 268,440 | 489,020 |
| Change (1990-1995) | | | | | |
| Percent | -1.13% | -6.60% | -10.71% | -9.66% | -12.38% |
| Average Annual Percent | -0.23% | -0.87% | -1.02% | -1.69% | -2.28% |
| Change (1995-2000) | | | | | |
| Percent | 38.75% | 76.98% | 84.42% | 75.02% | 97.51% |
| Average Annual Percent | 6.77% | 8.50% | 9.14% | 8.32% | 10.21% |
| Change (2000-2003) | | | | | |
| Percent | 36.09% | 11.31% | 18.90% | 26.70% | 35.50% |
| Average Annual Percent | 10.82% | 3.64% | 5.94% | 8.21% | 10.66% |
| Change (1990-2003) | | | | | |
| Percent | 86.70% | 67.98% | 73.46% | 58.04% | 72.03% |
| Average Annual Percent | 4.92% | 4.07% | 4.33% | 3.58% | 4.26% |
| Source: Los Angeles Economic Development Corporation (LAEDC), 2005 | | | | | |

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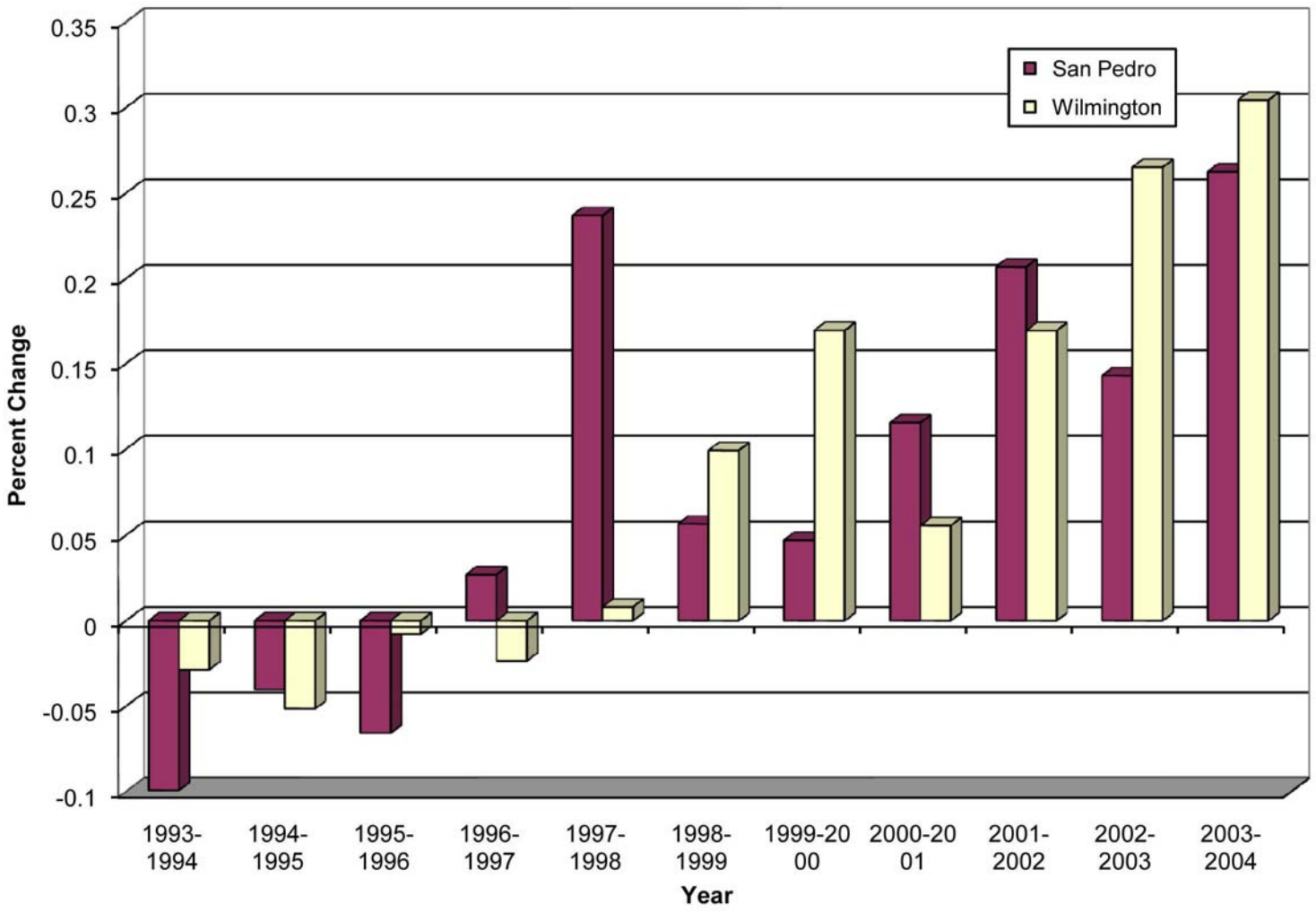
**Table 7.2-12.** Home Prices by Community (1997-2002)

| | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | Ave. Ann. % Change (1997-2002) |
|---|---|---|---|---|---|---|---|
| Carson | $140,000 | $153,500 | $170,000 | $170,250 | $210,000 | $240,000 | 11.38% |
| El Segundo | $309,000 | $276,750 | $290,000 | $397,000 | $369,500 | $415,000 | 6.08% |
| Gardena | $149,000 | $150,000 | $165,000 | $166,500 | $206,250 | $231,387 | 9.20% |
| Hawthorne | $149,000 | $149,500 | $172,000 | $198,750 | $205,000 | $260,000 | 11.78% |
| Hermosa Beach | $317,500 | $385,000 | $402,000 | $548,500 | $557,500 | $627,250 | 14.59% |
| Inglewood | $130,750 | $134,000 | $145,000 | $154,000 | $173,000 | $203,000 | 9.20% |
| Lawndale | $145,000 | $150,000 | $175,250 | $175,000 | $185,000 | $247,000 | 11.24% |
| Lomita | $170,000 | $190,000 | $240,000 | $250,000 | $240,000 | $340,000 | 14.87% |
| Manhattan Beach | $535,000 | $592,000 | $630,000 | $722,500 | $712,500 | $831,500 | 9.22% |
| Marina Del Ray | $290,000 | $340,000 | $360,000 | $384,500 | $449,000 | $452,500 | 9.31% |
| Palos Verdes Estates | $614,000 | $640,000 | $749,500 | $732,500 | $855,000 | $879,000 | 7.44% |
| Playa Del Rey | $278,500 | $221,000 | $231,500 | $243,250 | $267,750 | $313,500 | 2.40% |
| Rancho Palos Verdes | $452,500 | $543,000 | $562,500 | $591,000 | $557,000 | $669,000 | 8.13% |
| Redondo Beach | $286,250 | $300,250 | $318,000 | $346,000 | $400,000 | $449,000 | 9.42% |
| San Pedro | $164,000 | $230,000 | $236,000 | $235,000 | $262,500 | $320,000 | 14.30% |
| Torrance | $239,000 | $243,500 | $247,500 | $297,000 | $307,000 | $365,000 | 8.84% |
| Wilmington | $103,500 | $125,000 | $131,250 | $147,000 | $184,500 | $196,000 | 13.62% |
| Source: LAEDC, 2002 | | | | | | | |




*Source:* First American 2005

**Figure 7.2-5**
**Change in Median House Price (Year-to-Previous Year), San Pedro and Wilmington**
**Berth 97-109 Container Terminal Project EIS/EIR**

Source: TraPac, 2007

CH2MHILL

## 7.2.1.4 Environmental Quality and the Role of the Port

"Environmental quality" refers to an aggregative set of factors that contribute to the overall condition of the natural, physical, and human environment. In the context of an urban setting, some key contributing factors include visual quality and aesthetics, land use compatibility and encroachment, socioeconomic conditions, real property values and attributes, air and water quality, hazardous materials and waste sites, and the adequacy of public facilities and services. Socioeconomic conditions and real property values are addressed in this chapter. The remaining factors are addressed in corresponding resource-specific sections of the document.

### Port History

The Port of Los Angeles was created in 1907 with the establishment of the Los Angeles Harbor Commission (see Cultural Resources, Section 3.4, for additional detail). Port growth was relatively slow until after World War I. Growing exports of local oil and lumber, shipbuilding, fishing, and cannery activities resulted in the construction of numerous warehouses and sheds between 1917 and 1930. In 1917, an extensive railroad was established for transporting goods from the Harbor throughout the U.S. Port growth continued during the Depression of the 1930s with new cargo and passenger terminal construction, in some cases, replacing outdated wooden cargo structures. Passenger terminals were constructed at the Port during the modernization of the Port related to containerized storage between 1948 and 1953.

As commerce and technology have changed, the function of the Port has shifted from its earlier focus on fishing, shipbuilding, and cargo uses to one where the predominant use is container shipping. These changes also have affected offsite land uses, transportation infrastructure, and employment. For example, different kinds of storage and transport facilities are required than previously. As the volume of cargo moving through the Port has increased, the capacities of the highway and rail system have become strained and improvements have been required (for example, the Alameda Corridor). Much of the incoming container cargo consists of finished goods from Asia that is transported to other parts of California and beyond. These types of goods do not require assembly (in the region) and may be transported to warehouses or distribution centers beyond the Port area. In contrast, imported oil (non-containerized) may be refined in nearby refineries before being transported elsewhere. Local refineries also have supported oil production near the Port or other parts of California. Ancillary uses have changed as well, including shipping suppliers, goods recyclers, and various light industrial uses. As a result, uses may have become outmoded or less economically viable, in some cases resulting in the need for economic revitalization and redevelopment.

### Port Environmental Programs and Initiatives

The Port is taking a number of measures designed to reduce the adverse impacts of Port operations and improve environmental quality in nearby communities. This section provides a brief overview of the Environmental Management Policy of the Port, as well as the consistency between that policy and the San Pedro Waterfront Master Plan and Wilmington Waterfront Development Program. On August 27, 2003, the Board of Harbor Commissioners approved development of an Environmental Management Policy for the Port. The purpose of the Environmental Management Policy is to provide an introspective, organized approach to environmental management, further incorporate environmental considerations into day-to-day Port operations, and achieve continual

environmental improvement. Numerous initiatives and programs under the Environmental Management Policy relate to impacts of Port operations on environmental quality in nearby communities. They include programs aimed at improving the efficiency of cargo handling, reducing cargo storage time, use of electric cranes, use of electric and alternative fuel vehicles, on-dock rail systems and use of the grade-separated Alameda Corridor, reducing truck traffic during daytime peak periods, and sharing technologies with other ports to continue improving pollution-control technologies. One recently approved plan under the policy, the San Pedro Bay Clean Air Action Plan (CAAP), specifically aims to reduce public health risk from Port operations in nearby communities.

### San Pedro Waterfront Master Plan

The San Pedro Waterfront Master Plan area includes 400 acres of Port property along an 8-mile stretch of waterfront from the Vincent Thomas Bridge to the Federal Breakwater in San Pedro. Designed to bring the community closer to the waterfront and triple the amount of existing open space, it is divided into six districts that focus on individual uses and traits: the Piers, Downtown Waterfront, San Pedro Slip/Ports O'Call, Marina/Resort, Beaches, and Warehouse Districts. Extensive waterfront development will continue in phases over the next decade. When complete, there will be 8.5 miles of public and revitalized waterfront, parks, plazas, beaches, harbors, and cultural and recreational attractions. All will be linked by a continuous promenade from bridge to breakwater. Improvements will include open space, landscaping, and improved access (a promenade), retail and commercial uses, civic uses, transportation, and parking.

### Wilmington Waterfront Development Program

The Wilmington Waterfront Development Program (Los Angeles Harbor Department [LAHD] and Port Community Advisory Committee [PCAC], 2004) is the result of efforts by PCAC, the PCAC Wilmington Waterfront Development Subcommittee, and the LAHD. The program identifies a number of goals and implementation strategies for the Wilmington Waterfront area and anticipates two independent projects: (1) preservation of the Harry Bridges Buffer Area, which will provide a physical space between the Wilmington community and the Port of Los Angeles; and (2) the Avalon Boulevard Corridor development, which is intended to provide waterfront access and commercial development opportunities for Wilmington. The Wilmington Development Program is the result of a series of planning efforts, beginning with the Wilmington/Port Area Planning Study in 1987 and including the conceptual Wilmington Waterfront Development Plan prepared in 2003. In October 2005, Port staff presented an update on the Wilmington Waterfront Development Program to the Board of Harbor Commissioners with a status update for implementing the Harry Bridges Buffer Area and Avalon Corridor projects. Through this process, it was evident that the two projects were at different stages of planning and development and did not rely on each other for implementation. Planning for improvement of the Harry Bridges Buffer Area, which is owned by the Port, has been conducted as part of the Berth 136-147 project evaluated in an earlier EIS/EIR. The Avalon Boulevard Corridor Project, however, was found to be poorly defined, and key development issues including land ownership questions and zoning restrictions were not yet established. This project would proceed with a master planning study, and then continue through its own environmental document and into design and construction.

### Wilmington Waterfront Master Plan (Avalon Corridor Development Project)

The Wilmington Waterfront Master Plan, otherwise known as the Avalon Corridor Development Project, focuses on providing access to the Waterfront and promoting development specifically along Avalon Boulevard. The Wilmington Waterfront Master Plan is the result of a year-long planning process among community representatives, Port of Los Angeles staff, and stakeholders. The Master Plan establishes the conceptual design for public improvements along Avalon Boulevard. The Wilmington Waterfront Master Plan establishes the location and character of public open spaces, plazas, parks, and other public amenities; the location and character of commercial and industrial development; and the circulation pattern and parking approach to support public access. The Wilmington Waterfront Master Plan builds upon existing plans for the Avalon Boulevard Corridor area, in particular the Wilmington Waterfront Development Final Plan (2004), and acknowledges the land use restrictions of the State Tidelands Trust Doctrine. The Master Plan serves as a framework for amending existing plans, policies, and guidelines of the Port of Los Angeles and of the City of Los Angeles, including the Wilmington-Harbor City Community Plan, which is a part of the City of Los Angeles General Plan.

# 7.3 Project Effects Related to Socioeconomics

This section presents estimates of employment associated with implementation of the proposed Project or alternatives during both the construction and operation phases. Preceding this discussion is a detailed description of the impact methodology used in the analysis.

## 7.3.1 Impact Methodology

The initial step in estimating socioeconomic effects associated with implementation of a project is to characterize aspects of the construction and operational phases of that project. With the aid of economic impact modeling techniques (described below), the economic effects of each aspect of a project are translated into measures such as jobs and income.

Distinctions are made between the terms “hinterland” and “economic impact area.” The hinterland of a port is the spatial extent of the market reach (that is, the geographical area from which cargo shipped through a port originates and area where cargo moving through a port is destined). The geographical extent of the hinterland usually is related directly to the size and number of facilities at a port. The economic impact area is a geographical area selected for purposes of impact analysis and includes the area within which the great majority of project-related impacts are anticipated. The economic impact area is typically smaller than the hinterland.

The primary catalyst for changes to socioeconomic resources is a change in economic activity (that is, industrial output [value of goods and services], employment, and income). Changes in employment in an area have the potential to affect population, housing, and environmental quality. This is especially the case when the additional job opportunities created through implementation of a project (during the construction and operation phases) cannot be satisfied by the local workforce. Such a situation can trigger a movement of workers to the area to fill the supply of new jobs. Such an influx may be temporary, as in the case of short-lived construction activity, or permanent, as in the case

where workers move to an area to fill long-term jobs. The movement of workers (and sometimes their accompanying family members) into an area depends mainly on the number of job opportunities made available by the project and the number and skill mix of workers available in the local labor force.

### 7.3.1.1 Economic Effects of Port Operations

Economic models and analysts distinguish several types of Port operations. "Port Industry" is defined as any regional economic activity that is directly needed for the movement of waterborne cargo and passengers. This definition includes activities that take place on the vessel, at the terminal, and during the inland movement of the cargo and passengers. The definition as it pertains to cargo movement includes documentation, financing, brokering, and other essential services that are directly required for the movement of waterborne cargo. Table 7.3-1 provides a detailed breakdown of Port Industry activities related to cargo movement.

**Table 7.3-1.** Port Industry Activities Associated with Cargo Movement

| Vessel Expenditures | Terminal Expenditures | Transaction Expenditures | Inland Expenditures |
|---|---|---|---|
| Waterside Services: | Loading/Discharging: | Government Requirements: | Inland Movement: |
| Tugs | Stevedoring | Customs | Long Distance Truck |
| Pilotage | Clerking and Checking | Entrance/Clearance | Short Distance Truck |
| Line Hauling | Watching/Security | Immigration | Barge |
| Launch | Cleaning/Fitting | Quarantine | Air |
| Radio/Radar | Equipment Rental | Fumigation | Rail |
| Surveyors | In-Transit Storage: | Other: | Pipeline |
| Dockage | Wharfage | Banking | |
| Lighterage | Yard Handling | Freight Forwarding | |
| Suppliers: | Demurrage | Insurance | |
| Chandler/Provisions | Warehousing | Brokers | |
| Laundry | Auto and Truck Storage | | |
| Medical | Grain Storage | | |
| Waste Handling | Refrigerated Storage | | |
| Bunkers: | Cargo Packing: | | |
| Oil | Export Packing | | |
| Water | Container Stuffing and Stripping | | |

Source: U.S. Maritime Administration, 2000

The Port Industry activities involved in maritime passenger movements are slightly different. They include vessel expenditures, cruise and ferry terminals, visitor expenditures associated with pre- and post-cruise stays at the local port, and the inland movement of passengers by a variety of modes (including transit, auto, rail, or walking).

Because the revenues and employment associated with Port Industry activities could cease to exist if the port were to close down or become less efficient and lose its cargo base, this employment base is directly impacted by port activities. A much larger group of business that is less directly related to a port includes businesses that produce, consume, or take to retail sale the products that move through the port. These businesses use the facilities of a given port because they are the most efficient and thus reduce

transportation costs (ACTA, 2007). These businesses are often called "Related Users." The expenditures of Related Users include the following (Port of Long Beach, 2005):

- Port users (expenditures of companies that use port facilities for importing or exporting cargo, but are not located in the port (for example, manufacturing companies that export to foreign markets and wholesalers that distribute imported goods)
- Retail sales (expenditures of companies to sell imported finished goods that move through the port)

The analysis of the proposed Project and alternatives in this chapter focuses on expenditures from construction activities and Port Industry operations, and associated jobs, output, and tax revenues. A study for the Port of Los Angeles in the late 1990s (LAHD, not dated) suggests five jobs are created in Related User industries (port users and retail sales) for every job in Port Industry. A more recent study at the Port of Long Beach (Port of Long Beach, 2005) suggests a higher number, 6.8 jobs in Related User industries for every job in Port Industry. Section 7.3.1.2 provides some information about potential employment effects from Related Users that could be associated with the proposed Project or alternatives.

### 7.3.1.2 Direct, Indirect, and Induced Effects

Each of the types of sectors related to port operations – both the Port Industry and Related Users categories described above – has a "ripple effect" by which expenditures in one sector contribute more output and jobs than the direct expenditure alone.

Vessels, terminals, transportation providers, and other Port Industry businesses purchase goods and services from industries to support their operations. These suppliers, in turn, purchase supplies and services to support their operations. These purchases continue to ripple through the regional economy and impact the surrounding communities. In economic impact terms, this set of expenditure ripples is known as the *indirect effect*.

In addition to the indirect effect of expenditure ripples, workers employed by the Port Industry and their suppliers also generate economic impacts. The employees of Port Industry and their suppliers spend their wages and salaries on such purchases as food, clothing, retail items, and vehicles. The economic ripples generated by employee spending are known as the *induced effect*.

The total economic impact of each economic sector associated with port operations consists of direct, indirect, and induced effects. The sum of indirect and induced effects is also referred to as the *secondary effect*.

The ratio of total (direct, indirect, and induced) effects to direct effect is often called the "economic multiplier." Multipliers represent a quantitative expression of the extent to which some initial, "exogenous" force or change (such as development and/or expansion of a port terminal) is expected to generate additional effects through the interdependencies that exist in the economy or "endogenous" linkage system. Multipliers are predicated upon a domino theory of economic change. They translate the consequences of change in one variable upon others, taking account of sometimes complicated and roundabout linkages. Multipliers are numerical coefficients that relate an initial change in demand (or employment) to a consequent change in total income (or total employment).

Multipliers usually range between 1.0 and 3.0 and vary by the size and complexity of the regional economy, the interaction of industries in the area, and the interactions between

the regional economy and other regions. The more inputs that are purchased locally and consumer expenditures made locally, the higher the multiplier. The larger and more highly urbanized the area, the more complex and integrated the economy is likely to be. Thus, more of the additional economic activity will likely occur in the area and increase the size of the multiplier.

The economic multiplier for a given sector associated with port operations should not be confused with the distinction between Port Industry and Related Users. Each of these sets of industries or users has an economic multiplier and contributes to regional economic activity via direct, indirect, and induced effects.

#### 7.3.1.3 MARAD Port Kit

The economic impact analysis reported here was prepared using the Port Economic Impact Kit model developed and maintained for the U.S. Maritime Administration (MARAD) by A. Strauss-Wieder, Inc. and the Center for Urban Policy Research at Rutgers, and the State University of New Jersey.

The heart of the MARAD Port Economic Impact Kit is an input-output model. An input-output model is based on a detailed level of industrial sector information and a depiction of inter-industry relations. Within this model, the economy of the area under discussion is mapped in table form with each industry listed across the top (column) as a consuming sector and down the side (row) as a producing sector. A column in the table or "matrix" depicts the inputs needed from every other industry to produce its output. This is referred to as a transaction matrix.

The MARAD port model provides a 517-industrial sector input-output model with basic data customized for the state or regions being analyzed. In the case of the Port of Los Angeles, the data customization applies to the five-county region in Southern California. Local input for the model includes costs for handling major cargo groups, transportation, and capital investments.

It should be understood that, although input-output analysis is a widely used approach to estimating the local and regional economic effects of implementing projects, it is not without its limitations. The information represents a snapshot at a specific time. In the case of the current model, the technical coefficients are based on 1992 information that was updated to 1998. (This is the most recent data available for the MARAD model.) Over time, the relationships between industries in an economy change, and their dependency on each other shifts. Input-output modeling does not account for economies of scale. Thus, the input required by an industry does not vary proportionately even though the final demand that is entered in the model varies.

Regional input-output models usually assume that regional technical requirements are the same as those for the nation. For large diverse regions, this assumption is probably valid; but for smaller ones, the potential for deviation increases. The MARAD model avoids this by providing customized information for the region containing the deepwater port.

The program running the MARAD model is capable of handling a range of port-related activity including a variety of cargoes (containerized cargo, break bulk, autos, project cargo, dry bulk, and liquid bulk); passenger vessels (ferries and cruise ships); and capital investments. For the proposed Project and the related modeling, containerized cargo is the only cargo handled by the China Shipping Terminal; capital investments are also applicable.

### 7.3.1.4 Region of Influence

The Port of Los Angeles is a national asset. Many of the direct and secondary economic impacts associated with its operation, however, are concentrated in a region of influence (ROI) comprising five of the counties in Southern California. The large majority of longshoremen and truckers working at the Port reside in Los Angeles and Orange counties. The ROI is defined as the following five counties: Los Angeles, Orange, Riverside, San Bernardino, and Ventura (San Diego and Imperial counties are excluded from the region).

### 7.3.1.5 Economic Measures of Project Effects

In describing the economic effects that implementation of a project could have on the regional economy, a number of measures can be used such as net changes in regional employment, output, wages, tax revenue, and value added. Attention is focused here on employment, income, tax revenues, and effects multipliers.

## 7.3.2 Proposed Project Construction

Implementation of the proposed Project requires completion of a number of additions and improvements to Port facilities in phases. The capital improvements of Phase I were completed in 2002 and 2003. The improvements proposed in Phase II would commence in the first quarter of 2009 and extend to the first quarter of 2011. Phase III improvements would be constructed between the fourth quarter of 2010 and first quarter of 2012. To effectively utilize the capabilities of the MARAD economic impact model, direct project expenditures are cast into an annual timeframe. Results of the analysis are presented for each year. As can be seen from the information presented in Figure 7.3-1, future expenditures are concentrated in 2009, 2010, and 2011.

There are six major categories of expenditures: bulkheads and dockside berth work, site preparation and utilities, equipment, structures and buildings, dredging, and services. Expenditures in 2002 were estimated to total over $65 million with the majority associated with site preparation and utilities work (40 percent of total expenditures) and bulkheads and dockside berth work (35 percent of total expenditures). In 2003, expenditures declined to just over $16 million with just over 70 percent allocated to bulkheads and dockside berth work. Future expenditures in 2009 are estimated to be about $31 million with the largest shares accounted for by bulkheads and dockside berth work (37 percent of total expenditures) and site preparation activities (32 percent of total expenditures). During 2010, expenditures total over $17 million with a large proportion (45 percent of total expenditures) allocated to site preparation and utilities work. Expenditures rise to just over $20 million in 2011 with the majority (49 percent of total expenditures) again going for site preparation and utilities.

It is anticipated that effects associated with construction of the proposed Project would be experienced mostly in the five-county Southern California region, and it is this geographical area for which effects are reported.

### 7.3.2.1 Employment Impacts

During the construction phases of the proposed Project, employment was highest in 2002 when just over 860 jobs annually, both direct and secondary, would have been added to the regional economy. The results are depicted in Figure 7.3-2 and listed in Table 7.3-2. The majority of total jobs (about 40 percent) would be in the construction sector of the economy. About 20 percent of the total number of new jobs would be in the services sector, about 13 percent in the manufacturing sector, and 12 percent in the retail trade sector.

Impacts to regional employment associated with construction activity can be assessed by comparing existing regional employment and effects of the proposed Project. For instance, the 860 jobs added in the peak construction year (2002) represented a fraction of 1 percent of the number of jobs (7,733,200) in the five-county region in the corresponding year.

### 7.3.2.2 Income, Tax Revenues, and Effect Multipliers

Aggregate wages and salaries during 2002 (the year exhibiting the highest levels of construction activity) would have reached over $43 million annually. This equates to an average annual wage or salary for each worker related to the proposed Project (both direct and secondary) of about $50,500 per year (2005 dollars).

Annual tax revenues contributed by these workers during this peak activity year would have been $6.7 million in federal taxes, $1.6 million in state taxes, and $677,000 in local taxes. Local taxes are revenues collected by sub-state governments, occurring mainly through property taxes and including income, sales, and other major local taxes (MARAD, 2000).

Effect multipliers are a standardized means of expressing project-related effects in terms of $1 million of initial investment. Multipliers referenced include employment, income, and taxes (state and local). During the peak years of construction activity (2002), the number of jobs generated per $1 million of initial investment averaged almost 13.2, while income averages about $696,000. Estimated tax revenues generated per $1 million of initial investment would be about $24,000 for state taxes and about $10,000 for local taxes. The value of the gross regional product, that is, the difference between the value of the goods and services as inputs and the values of goods and services produced, would increase by about $930,000 per $1 million invested in the five-county region.

## 7.3.3 No Federal Action Alternative Construction

The No Federal Action Alternative involves the development of landside improvements such as backlands in addition to those existing currently, but no in-water activities such as dredging, filling, or wharf construction. Construction activities, in addition to those already completed in 2002 and 2003, would take place in the 2009-2011 timeframe.

### 7.3.3.1 Employment Impacts

Peak construction activity occurred in 2002, as with the proposed Project when about 860 total jobs were added to the regional economy. The majority of total jobs (about 40 percent) would be in the construction sector of the economy. As with the proposed Project, about 20 percent of the total number of new jobs would be in the services sector, about 13 percent in the manufacturing sector and 12 percent in the retail trade sector.

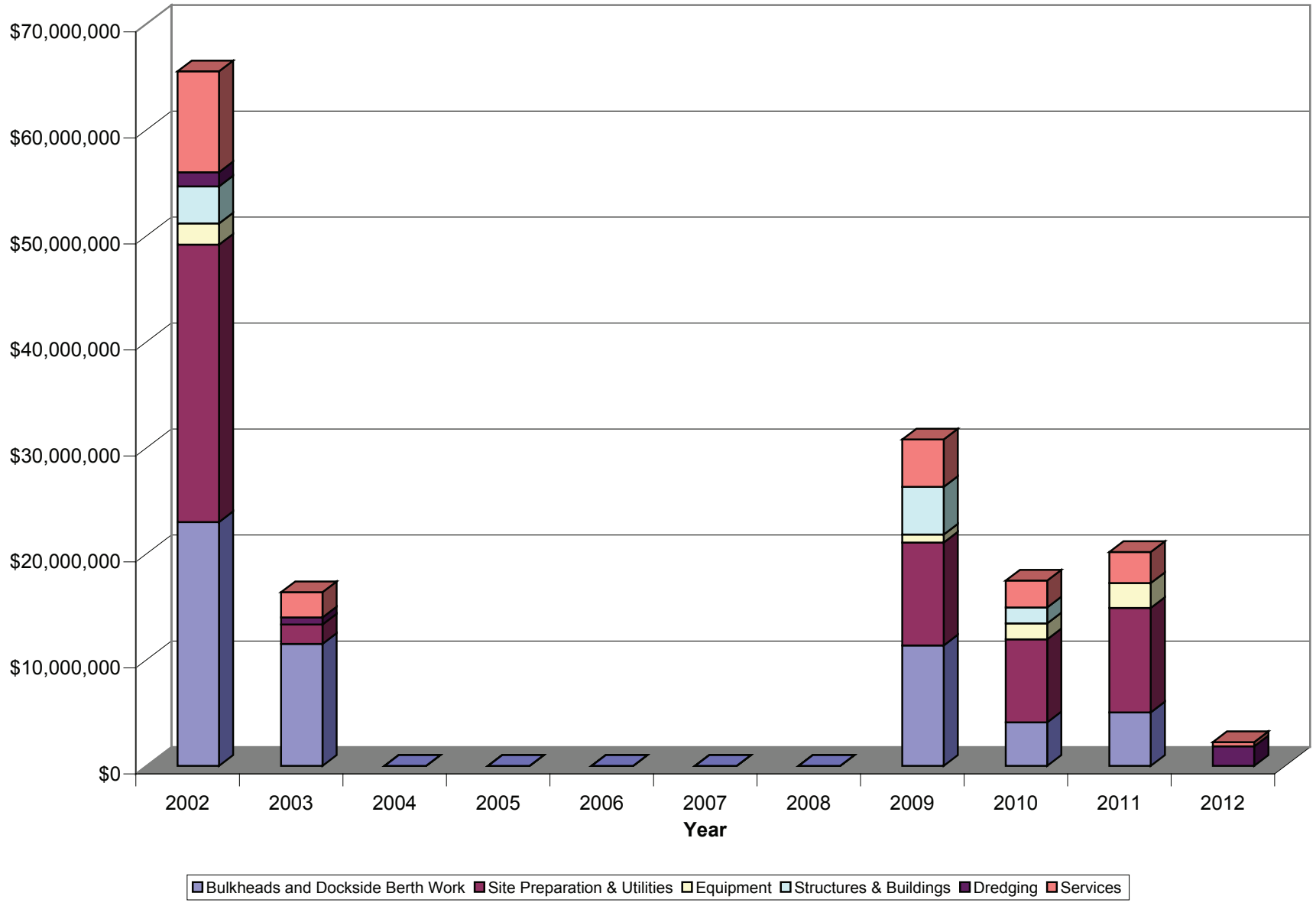



**Figure 7.3-1**
**Proposed Project: Annual Capital Improvement Project Expenditures**
**Berth 97-109 Container Terminal Project EIS/EIR**

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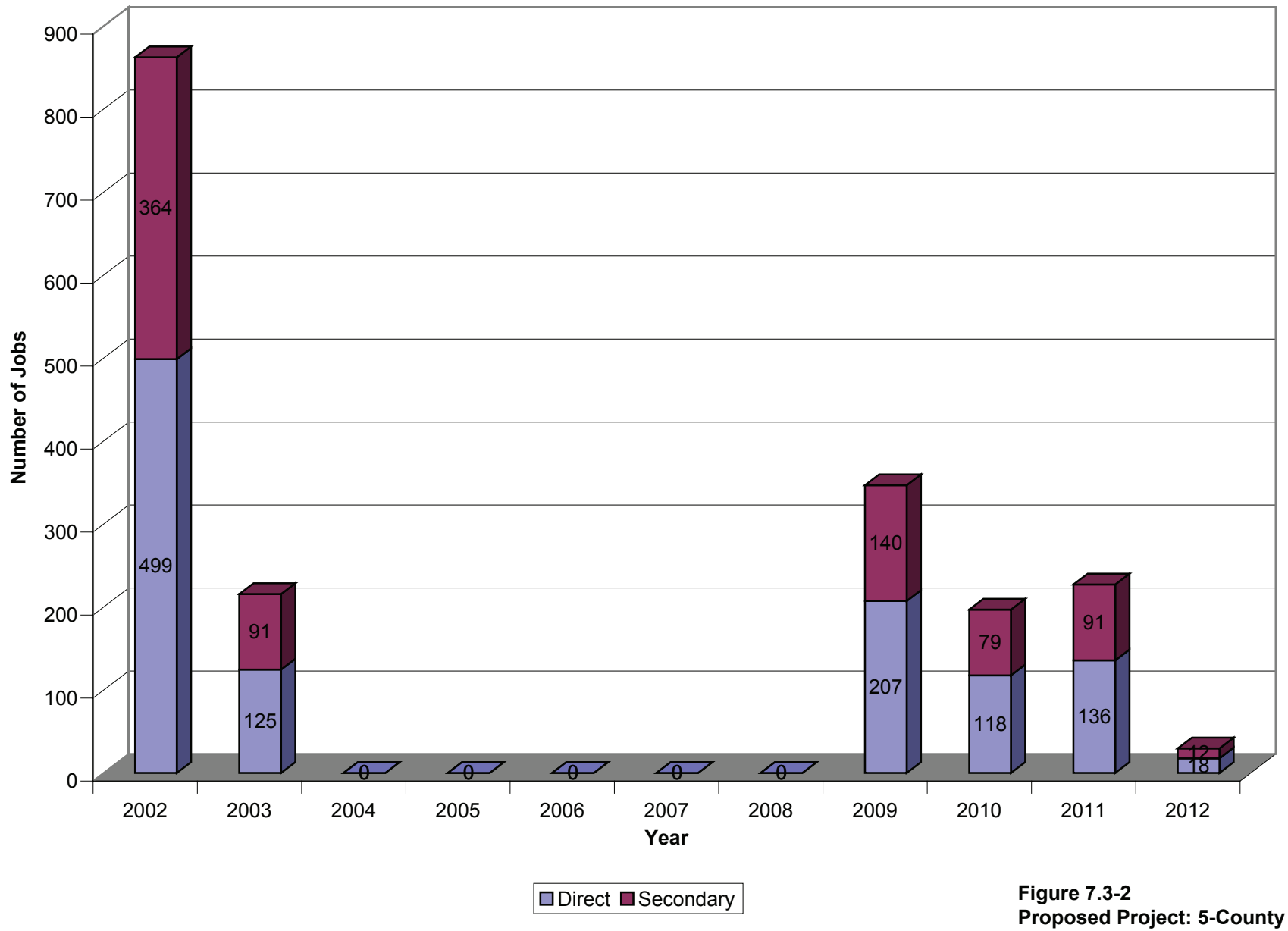


**Figure 7.3-2**
**Proposed Project: 5-County Region Construction Employment**
**Berth 97-109 Container Terminal Project EIS/EIR**

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**Table 7.3-2.** Proposed Project: Employment Effects of Construction by Sector in Five-County Region

| | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| I. Total Effects (Direct and Indirect/Induced) | | | | | | | | | | | |
| **Private** | | | | | | | | | | | |
| 1. Agriculture | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2. Agriculture Services, Forestry, and Fishing | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 3. Mining | 20 | 5 | 0 | 0 | 0 | 0 | 0 | 9 | 5 | 6 | 1 |
| 4. Construction | 341 | 85 | 0 | 0 | 0 | 0 | 0 | 146 | 83 | 96 | 12 |
| 5. Manufacturing | 111 | 28 | 0 | 0 | 0 | 0 | 0 | 37 | 21 | 24 | 3 |
| 6. Transportation and Public Utilities | 44 | 11 | 0 | 0 | 0 | 0 | 0 | 19 | 11 | 12 | 2 |
| 7. Wholesale Trade | 17 | 4 | 0 | 0 | 0 | 0 | 0 | 7 | 4 | 4 | 1 |
| 8. Retail Trade | 104 | 26 | 0 | 0 | 0 | 0 | 0 | 41 | 23 | 27 | 4 |
| 9. Fire | 37 | 9 | 0 | 0 | 0 | 0 | 0 | 15 | 8 | 10 | 1 |
| 10. Services | 183 | 46 | 0 | 0 | 0 | 0 | 0 | 71 | 40 | 47 | 6 |
| Private Subtotal | 858 | 215 | 0 | 0 | 0 | 0 | 0 | 345 | 196 | 226 | 29 |
| **Public** | | | | | | | | | | | |
| 11. Government | 4 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 0 |
| Total Effects (Private and Public) | 862 | 216 | 0 | 0 | 0 | 0 | 0 | 347 | 197 | 227 | 30 |
| II. Distribution of Effects/Multipliers | | | | | | | | | | | |
| 1. Direct Effects | 499 | 125 | 0 | 0 | 0 | 0 | 0 | 207 | 118 | 136 | 18 |
| 2. Secondary Effects | 364 | 91 | 0 | 0 | 0 | 0 | 0 | 140 | 79 | 91 | 12 |
| 3. Total Effects | 862 | 216 | 0 | 0 | 0 | 0 | 0 | 347 | 197 | 227 | 30 |
| 4. Multiplier (3/1) | 1.7 | 1.7 | 0 | 0 | 0 | 0 | 0 | 1.7 | 1.7 | 1.7 | 1.7 |

Note: Because of rounding, totals may not be the sum of the additions.

Source: CH2M HILL, 2007

Construction activity also would occur in the years 2009 to 2011; however, the total number of jobs associated with the activities would be smaller that for the proposed Project. In 2009, the number of jobs associated with construction activity for the No Federal Action Alternative would be 55 (compared to 350 for the proposed Project). In 2010, the comparison would be 100 jobs versus 200 jobs. In 2011, it would be 30 jobs versus 230 jobs.

The increase in total employment attributable to construction activity for the No Federal Action Alternative would constitute a small fraction of 1 percent of regional employment throughout the construction period.

#### 7.3.3.2 Income, Tax Revenues, and Effect Multipliers

Aggregate wages and salaries in 2010 would reach $4.8 million annually. This equates to an average annual wage or salary for each Project-related worker (direct and secondary) of about $50,500 per year.

Annual tax revenues contributed by the workers during 2010 would reach about $750,000 in federal taxes, $175,000 in state taxes, and $75,000 in local taxes. These tax revenue estimates are about 15 percent lower than those for the proposed Project.

The total economic effect from the No Federal Action Alternative construction is smaller than for the proposed Project, but the effect multipliers are virtually identical.

### 7.3.4 No Project Alternative Construction

Under the No Project Alternative, construction of Phase I facilities occurred between 2001 and 2005.

#### 7.3.4.1 Employment Impacts

Peak construction activity occurred in 2002, as with the proposed Project, when about 860 total jobs were added to the regional economy. The majority of total jobs (about 40 percent) would be in the construction sector of the economy. About 20 percent of the total number of new jobs would be in the services sector, about 13 percent in the manufacturing sector, and 12 percent in the retail trade sector.

The increase in total employment attributable to construction activity for the No Action Alternative would constitute a small fraction of 1 percent of regional employment throughout the construction period.

#### 7.3.4.2 Income, Tax Revenues, and Effect Multipliers

Aggregate wages and salaries during 2002 (the year exhibiting the highest levels of construction activity) would have reached over $43 million annually. This equates to an average annual wage or salary for each worker (both direct and secondary) of about $50,500 per year (2005 dollars).

Annual tax revenues contributed by these workers during this peak activity year would have been $6.7 million in federal taxes, $1.6 million in state taxes, and $677,000 in local taxes. Local taxes are revenues collected by sub-state governments, occurring mainly through property taxes and including income, sales, and other major local taxes (MARAD, 2000).

During the peak construction activity (2002), the number of jobs generated per $1 million of initial investment averaged almost 13.2, while income averages about $696,000. Estimated tax revenues generated per $1 million of initial investment would be about $24,000 for state taxes and about $10,000 for local taxes. The value of the gross regional product, that is, the difference between the value of the goods and services as inputs and the values of goods and services produced, would increase by about $930,000 per $1 million invested in the five-county region.

## 7.3.5 Proposed Project Operations

The long-term economic effects associated with operations are derived using the MARAD model and rely on input describing terminal throughput, measured in terms of TEUs transported. With the exception of Alternative 7, throughput volumes for each alternative include those expected to occur under the No Project Alternative. It also utilizes input on modal split for inland transportation between long distance truck, short distance truck, and rail.

Employment effects in the five-county region in Southern California are reported for the years 2001, 2005, 2015, 2030, and 2045.

### 7.3.5.1 Employment Impacts

Implementation of the proposed Project could result in an increase in employment of between 2,193 jobs in 2005 and 8,435 jobs at buildout in 2030 and beyond to 2045. The majority of jobs are attributable to direct employment, although secondary jobs (indirect and induced) make a sizeable contribution as can be seen from the information depicted in Figure 7.3-3. Figure 7.3-4 shows the relationship between total employment under the proposed Project and No Project Alternative (Alternative 1) conditions. In the year 2045, about 2,486 of the total of 8,435 jobs would occur in the absence of the proposed Project. This would happen because increases in throughput (TEUs) are projected based on existing capacity. The employment level under No Project Alternative conditions would increase from 245 jobs in 2001 to 2,486 jobs in 2030 and beyond to 2045.

Most of the direct jobs generated by operations at the terminal would be in the transportation and public utilities industrial sector of the regional economy. Secondary jobs, however, would occur in all industrial sectors. Information contained in Table 7.3-3 illustrates the manner in which total jobs are distributed across industrial sectors for each of the reporting periods. For the year 2045, Figure 7.3-5 illustrates that the large majority of jobs (60.2 percent) are concentrated, as would be anticipated, in the transportation and public utilities sector. However, noticeable shares occur in retail trade (12.7 percent), services (11.9 percent), and manufacturing (6.4 percent).

**Table 7.3-3.** Proposed Project: Employment Effects of Operations by Sector in Five-County Region

| | 2001 | 2005 | 2015 | 2030 | 2045 |
|---|---|---|---|---|---|
| I. Total Effects by Industrial Sector | | | | | |
| **Private** | | | | | |
| 1. Agriculture | 0 | 3 | 7 | 10 | 10 |
| 2. Agriculture Services, Forestry, and Fishing | 0 | 3 | 7 | 10 | 10 |
| 3. Mining | 1 | 6 | 17 | 23 | 23 |
| 4. Construction | 2 | 22 | 62 | 83 | 83 |
| 5. Manufacturing | 16 | 141 | 407 | 542 | 542 |
| 6. Transport and Public Utilities | 148 | 1,320 | 3,812 | 5,078 | 5,078 |
| 7. Wholesale | 5 | 41 | 118 | 157 | 157 |
| 8. Retail Trade | 31 | 278 | 801 | 1,068 | 1,068 |
| 9. Finance, Insurance, and Real Estate | 12 | 110 | 318 | 424 | 424 |
| 10. Services | 29 | 261 | 752 | 1,002 | 1,002 |
| Private Subtotal | 245 | 2,182 | 6,302 | 8,395 | 8,395 |
| **Public** | | | | | |
| 11. Government | 1 | 11 | 30 | 41 | 41 |
| TOTAL (Private and Public) | 245 | 2,193 | 6,332 | 8,435 | 8,435 |
| II. Distribution of Effects/Multiplier | | | | | |
| 1. Direct Effects | 136 | 1,218 | 3,519 | 4,687 | 4,687 |
| 2. Indirect and Induced Effects | 109 | 974 | 2,814 | 3,748 | 3,748 |
| 3. Total Effects | 245 | 2,193 | 6,332 | 8,435 | 8,435 |
| 4. Multipliers (3/1) | 1.80 | 1.80 | 1.80 | 1.80 | 1.80 |

Note: Because of rounding, totals may not be the sum of the additions.
Source: CH2M HILL, 2007

Effects on regional employment associated with implementation of the proposed Project are assessed through a comparison between baseline conditions and proposed Project effects. The maximum net increase in employment attributable to the proposed Project (excluding those jobs associated with the No Project Alternative) would be 5,949 jobs in the year 2045. This compares to a projected number of jobs in the five-county region of about 11.8 million in the corresponding year. Thus, the proposed Project effect (net over No Project) represents about 0.05 percent of projected regional employment (Table 7.3-4).

**Table 7.3-4.** Proposed Project: Employment Impacts of Operations in Five-County Region

| | 2001 | 2005 | 2015 | 2030 | 2045 |
|---|---|---|---|---|---|
| **Proposed Project Effects** | | | | | |
| Total Employment (Gross) | 245 | 2,193 | 6,332 | 8,435 | 8,435 |
| Total Employment (Net Over No Project Alternative) | 0 | 0 | 3,983 | 5,949 | 5,949 |
| **No Project Conditions** | | | | | |
| Total Employment Under No Project Alternative | 245 | 2,193 | 2,349 | 2,486 | 2,486 |
| Total Employment in Five-County Region | 7,713,300 | 8,160,100 | 9,113,530 | 10,416,130 | 11,849,100 |
| **Proposed Project Impact (% of Five-County Region)** | | | | | |
| Total Employment (Gross) | 0.00% | 0.03% | 0.07% | 0.08% | 0.07% |
| Total Employment (Net Over No Project) | 0.00% | 0.00% | 0.04% | 0.06% | 0.05% |

Source: CH2M HILL, 2007

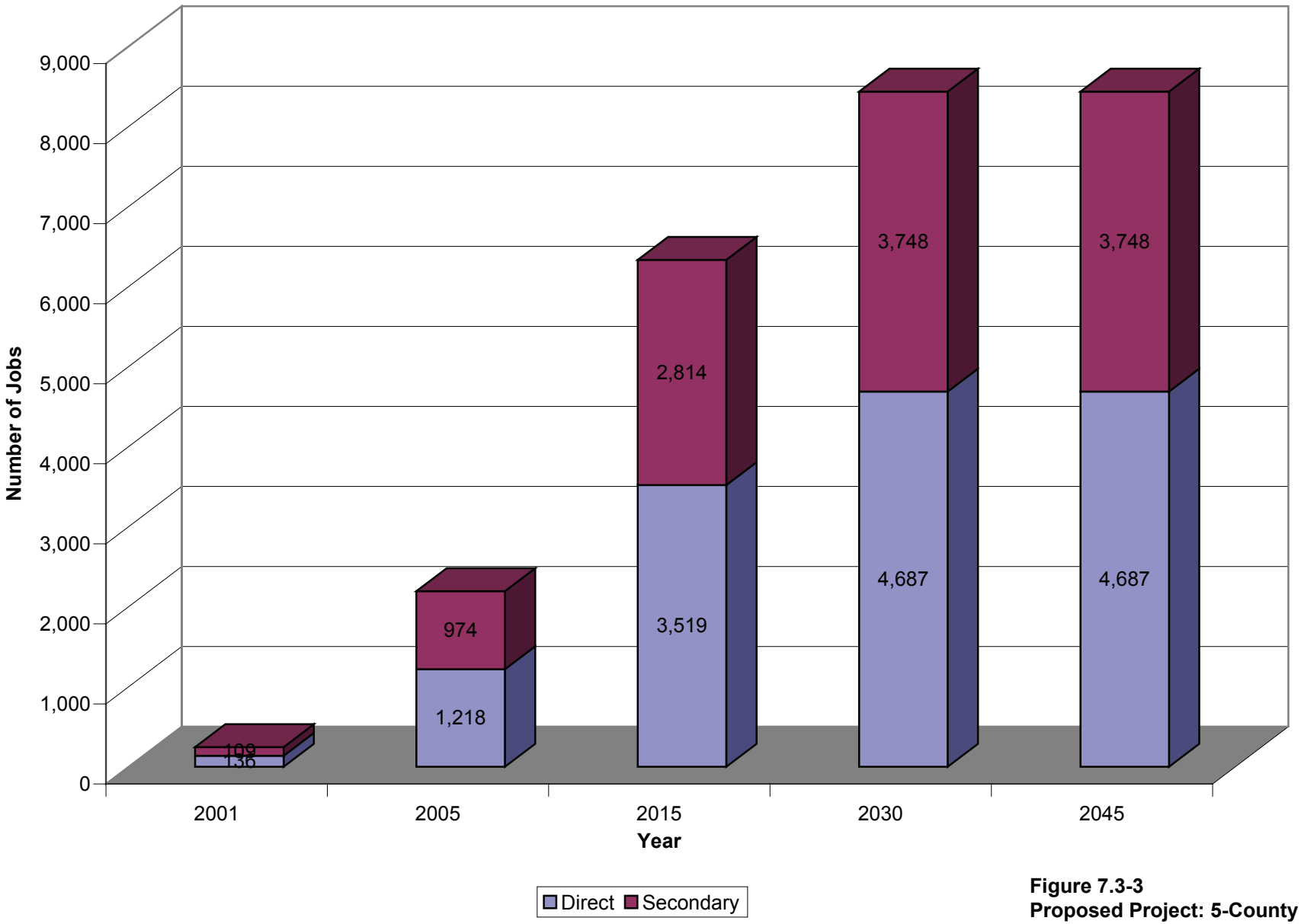


**Figure 7.3-3**
**Proposed Project: 5-County Region**
**Operations Employment**
**Berth 97-109 Container**
**Terminal Project EIS/EIR**

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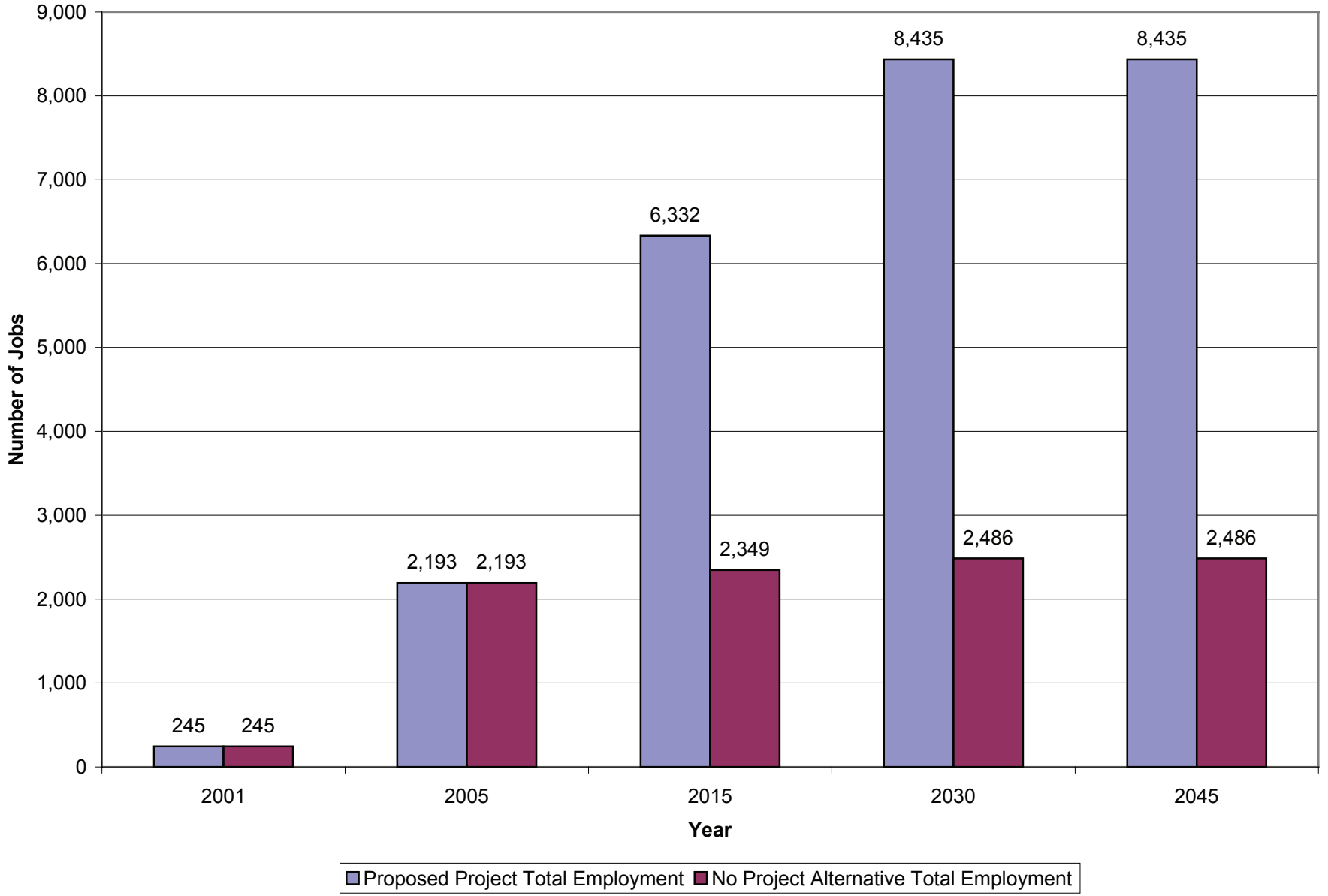


**Figure 7.3-4**
**Proposed Project vs. No Project:**
**5-County Region Operations Employment**
**Berth 97-109 Container**
**Terminal Project EIS/EIR**

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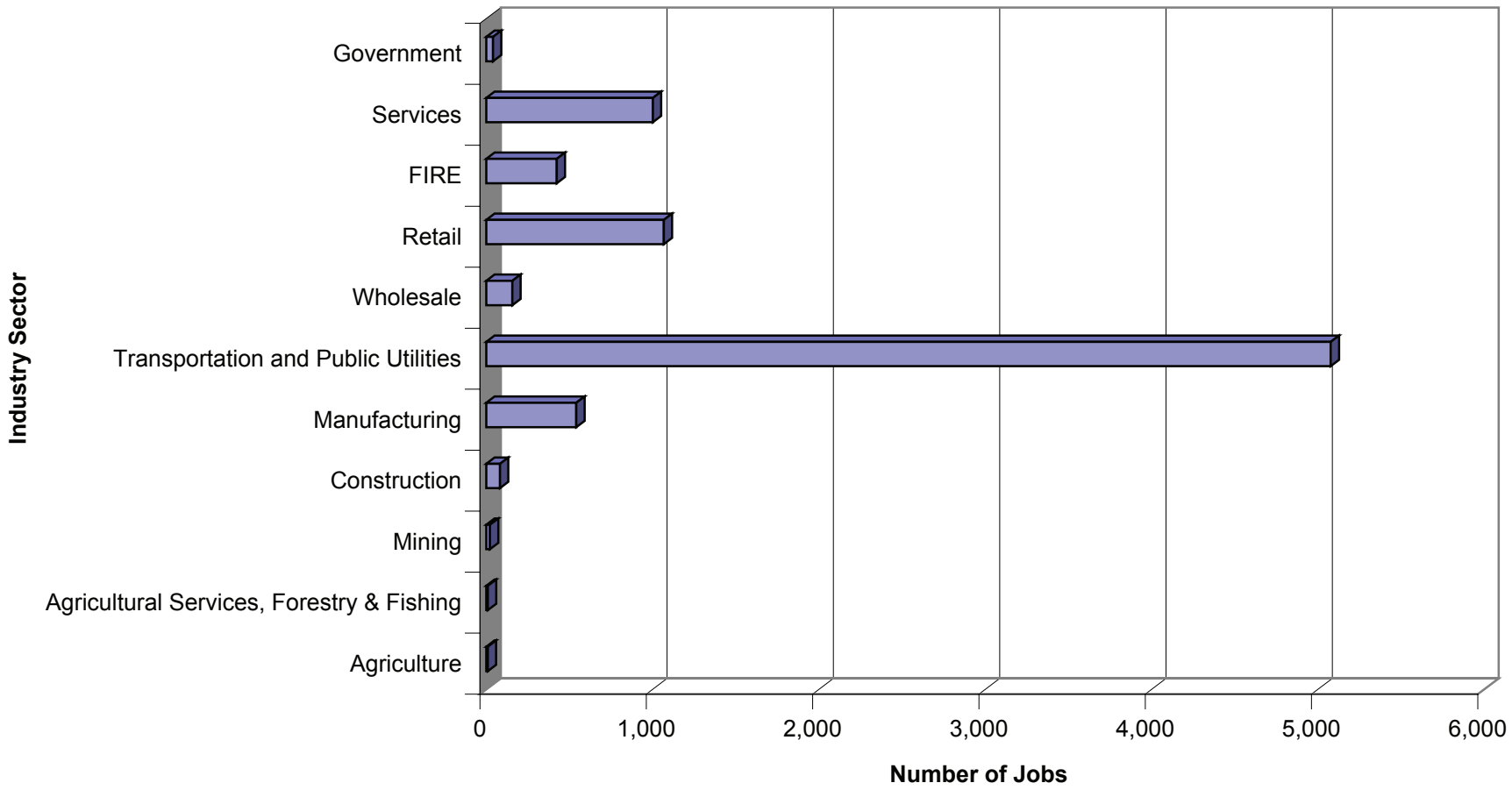


**Figure 7.3-5**
**Proposed Project: 5-County Region**
**Operations Employment by Sector in 2038**
**Berth 97-109 Container**
**Terminal Project EIS/EIR**

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### 7.3.5.2 Income, Tax Revenues, and Effect Multipliers

Aggregate wages and salaries would total about $12 million in 2001 and reach almost $417 million annually by 2045. This equates to an average annual wage or salary for each Project-related worker (both direct and secondary) of over $60,000 per year (in 2005 dollars).

Annual tax revenues contributed by these workers would rise from about $2.5 million in 2001 to $85 million in 2045. In the year 2045, the greatest share of personal taxes would be federal ($64 million), followed by state ($15 million) and local ($6 million).

The number of jobs generated per million dollars of initial expenditure averages about 9.4, while income averages about $566,100, and estimated tax revenues are about $39,400 for the state and about $28,800 for local governments. The value of gross regional product would increase by about $790,000 per million expended (Table 7.3-5).

**Table 7.3-5.** Proposed Project: Effects of $1 Million Output (2005 Dollars)

| | |
|---|---|
| Employments (jobs) | 9.4 |
| Income ($) | 566,100 |
| State Taxes ($) | 39,400 |
| Local Taxes ($) | 28,800 |
| Gross Regional Product ($) | 789,700 |

Source: CH2M HILL, 2007

## 7.3.6 No Federal Action Alternative Operations

Development of additional backlands is anticipated under the No Federal Action Alternative (Alternative 2), which would enable throughput to be increased at the terminal. However, throughput would remain lower than for the proposed Project.

### 7.3.6.1 Employment Impacts

Operations under the No Federal Action Alternative would create an increase in employment from 245 jobs in 2001 and 3,440 jobs at buildout in 2015 and beyond to 2045. The majority of jobs are attributable to direct employment, although secondary jobs (indirect and induced) contribute, as can be seen from the information depicted in Figure 7.3-6. With the development of additional backlands, throughput at the terminal would increase. Employment attributable solely to improvements made under the No Federal Action Alternative also would increase over the No Project Alternative by about 955 jobs in 2030 as illustrated in Figure 7.3-7.

The distribution of the additional jobs across the different industrial sectors of the economy would be similar to that anticipated under the proposed Project (Table 7.3-6).

**Table 7.3-6.** No Federal Action Alternative: Employment Effects of Operations By Sector in Five-County Region

| | 2001 | 2005 | 2015 | 2030 | 2045 |
|---|---|---|---|---|---|
| I. Total Effects by Industrial Sector | | | | | |
| **Private** | | | | | |
| 1. Agriculture | 0 | 2 | 4 | 4 | 4 |
| 2. Agriculture Services, Forestry, and Fishing | 0 | 3 | 4 | 4 | 4 |
| 3. Mining | 1 | 6 | 9 | 9 | 9 |
| 4. Construction | 2 | 22 | 34 | 34 | 34 |
| 5. Manufacturing | 16 | 141 | 221 | 221 | 221 |
| 6. Transport and Public Utilities | 148 | 1,320 | 2,068 | 2,071 | 2,071 |
| 7. Wholesale | 5 | 41 | 64 | 64 | 64 |
| 8. Retail Trade | 31 | 278 | 435 | 435 | 435 |
| 9. Finance, Insurance, and Real Estate | 12 | 110 | 173 | 173 | 173 |
| 10. Services | 29 | 261 | 408 | 409 | 409 |
| Private Subtotal | 244 | 2,182 | 3,419 | 3,423 | 3,423 |
| **Public** | | | | | |
| 11. Government | 1 | 11 | 17 | 17 | 17 |
| TOTAL (Private and Public) | 245 | 2,193 | 3,436 | 3,440 | 3,440 |
| II. Distribution of Effects/Multiplier | | | | | |
| 1. Direct Effects | 136 | 1,218 | 1,909 | 1,911 | 1,911 |
| 2. Indirect and Induced Effects | 109 | 974 | 1,527 | 1,528 | 1,528 |
| 3. Total Effects | 245 | 2,193 | 3,436 | 3,440 | 3,440 |
| 4. Multipliers | 1.80 | 1.80 | 1.80 | 1.80 | 1.80 |

Note: Because of rounding, totals may not be the sum of the additions.
Source: CH2M HILL, 2007

Impacts to regional employment associated with the No Federal Action Alternative are assessed through a comparison against No Project conditions. The maximum net increase in employment (in the year 2030) attributable to the No Federal Action Alternative would be 954 jobs. This compares to a projected number of jobs in the five-county region of Southern California of 10,416,000 in 2030. Thus, the No Federal Action net impact of about 950 jobs comprises about 0.01 percent of projected regional employment in 2030 (Table 7.3-7).

**Table 7.3-7.** No Federal Action Alternative: Employment Impacts of Operations in Five-County Region

| | 2001 | 2005 | 2015 | 2030 | 2045 |
|---|---|---|---|---|---|
| **No Federal Action Alternative Effects** | | | | | |
| Total Employment (Gross) | 245 | 2,193 | 3,436 | 3,440 | 3,440 |
| Total Employment (Net over No Project) | 0 | 0 | 1,086 | 954 | 954 |
| **No Project Alternative** | | | | | |
| Total Employment under No Project | 245 | 2,193 | 2,324 | 2,486 | 2,486 |
| Total Employment in Five-County Region | 7,713,300 | 8,160,100 | 9,113,530 | 10,416,130 | 11,849,100 |
| **No Federal Action Alternative Impact (Percent of Five-County Region)** | | | | | |
| Total Employment (Gross) | 0.00% | 0.03% | 0.04% | 0.03% | 0.03% |
| Total Employment (Net over No Project) | 0.00% | 0.00% | 0.01% | 0.01% | 0.01% |

Source: CH2M HILL, 2007

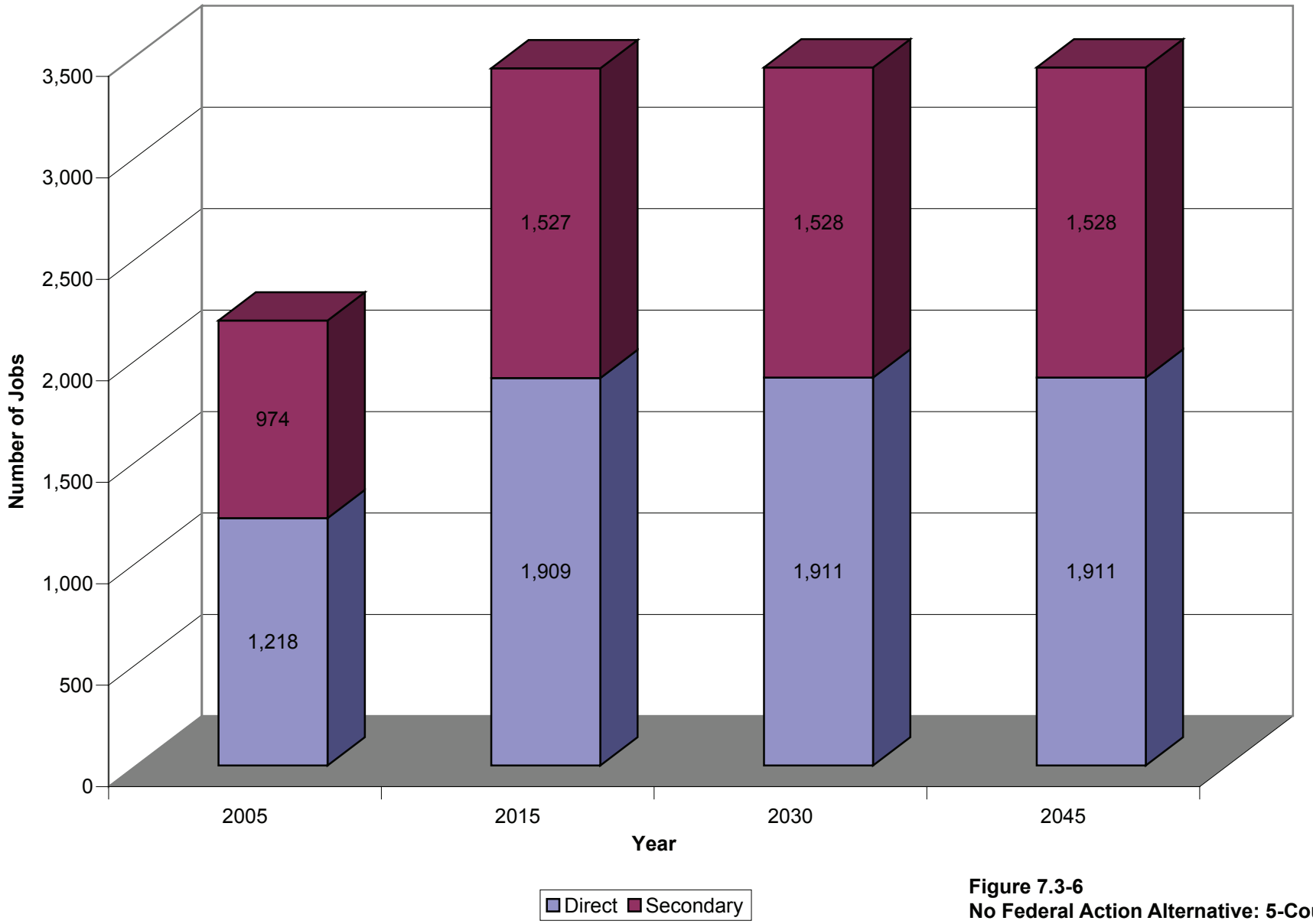


**Figure 7.3-6**
**No Federal Action Alternative: 5-County Region Operations Employment**
**Berth 97-109 Container Terminal Project EIS/EIR**

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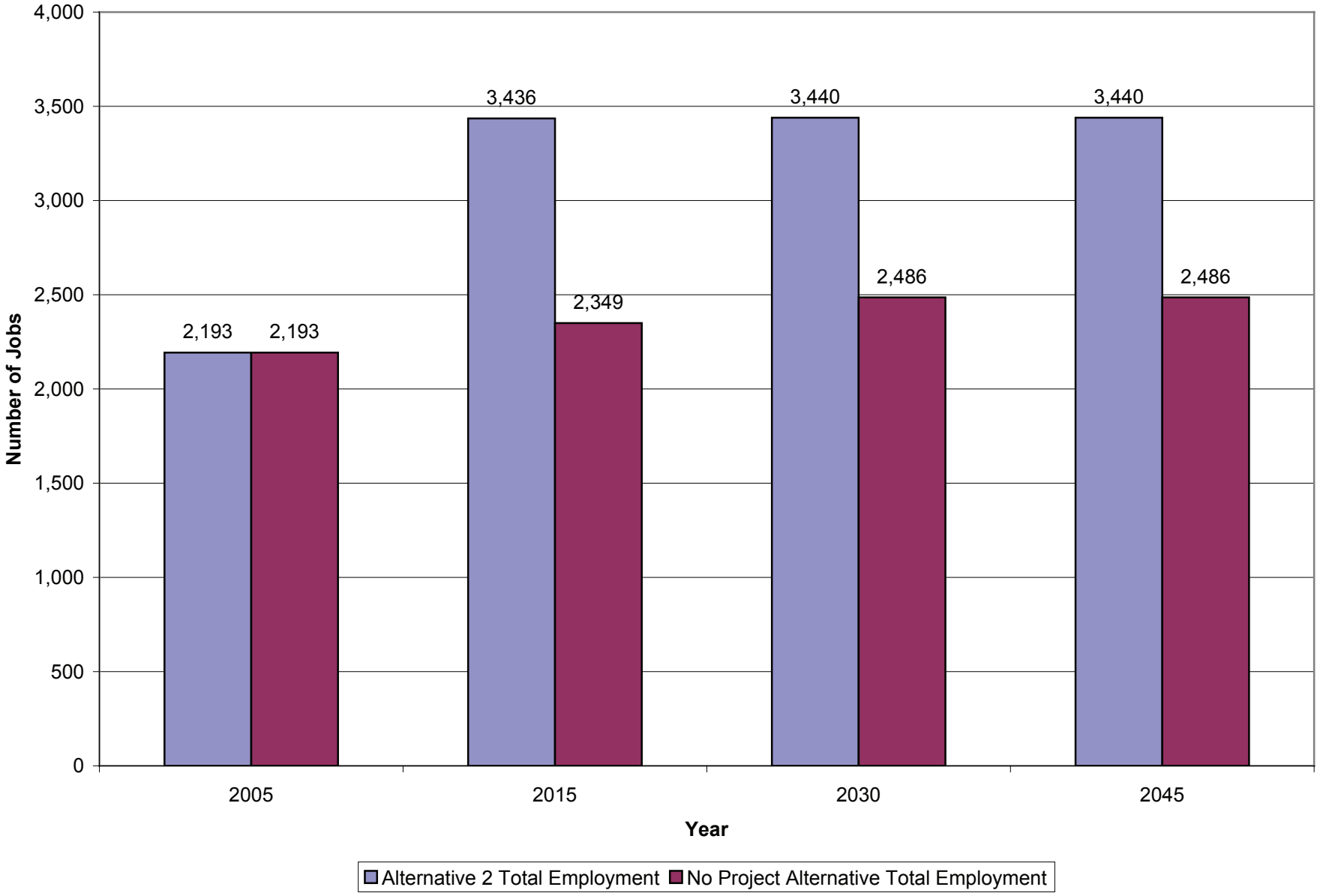


**Figure 7.3-7**
**No Federal Action Alternative vs. No Project Alternative: 5-County Region Operations Employment**
**Berth 97-109 Container Terminal Project EIS/EIR**

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### 7.3.6.2 Income, Tax Revenues, and Effect Multipliers

As in the case of the proposed Project, aggregate wages and salaries would total about $12 million in 2001. They would reach about $170 million annually by 2045 (compared to $417 million annually under the proposed Project). This equates to an average annual wage or salary for each Project-related worker (direct and secondary) of $60,100 per year (in 2005 constant-year dollars).

Annual tax revenues contributed by these workers (including income, sales, and property taxes) would decline from about $85 million in 2001 to $35 million in 2045. In the year 2045, the greatest share of personal taxes would be federal ($26 million), followed by state ($6 million) and local ($2.6 million).

The values for the effect multipliers (employment, income, taxes [state and local], and added-value effects per $1 million of output) would be identical to those experienced under the proposed Project (Table 7.3-3).

## 7.3.7 No Project Alternative Operations

As can be seen from the information contained in Table 7.3-8, total employment (direct and secondary) associated with operation of the terminal is expected to increase from 245 in 2001 to 2,486 in 2045. The employment in 2045 contributes approximately 0.03 percent of projected regional employment in the corresponding year.

**Table 7.3-8.** No Project Alternative: Employment Effects of Operations By Sector in Five-County Region

| | 2001 | 2005 | 2015 | 2030 | 2045 |
|---|---|---|---|---|---|
| I. Total Effects by Industrial Sector | | | | | |
| **Private** | | | | | |
| 1. Agriculture | 0 | 3 | 3 | 3 | 3 |
| 2. Agriculture Services, Forestry, and Fishing | 0 | 3 | 3 | 3 | 3 |
| 3. Mining | 1 | 6 | 6 | 7 | 7 |
| 4. Construction | 2 | 22 | 23 | 24 | 24 |
| 5. Manufacturing | 16 | 141 | 151 | 160 | 160 |
| 6. Transport and Public Utilities | 148 | 1,320 | 1,414 | 1,496 | 1,496 |
| 7. Wholesale | 5 | 41 | 44 | 46 | 46 |
| 8. Retail Trade | 31 | 278 | 297 | 315 | 315 |
| 9. Finance, Insurance, and Real Estate | 12 | 110 | 118 | 125 | 125 |
| 10. Services | 29 | 261 | 279 | 295 | 295 |
| Private Subtotal | 245 | 2,182 | 2,338 | 2,474 | 2,474 |
| **Public** | | | | | |
| 11. Government | 1 | 11 | 11 | 12 | 12 |
| TOTAL (Private and Public) | 245 | 2,193 | 2,349 | 2,486 | 2,486 |
| II. Distribution of Effects/Multiplier | | | | | |
| 1. Direct Effects | 136 | 1,219 | 1,306 | 1,381 | 1,381 |
| 2. Indirect and Induced Effects | 109 | 974 | 1,044 | 1,105 | 1,105 |
| 3. Total Effects | 245 | 2,193 | 2,349 | 2,486 | 2,486 |
| 4. Multipliers | 1.80 | 1.80 | 1.80 | 1.80 | 1.80 |

Note: Because of rounding, totals may not be the sum of the additions.
Source: CH2M HILL, 2007

## 7.3.8 Reduced Fill Alternative 3 – No Berth 102 Wharf Construction and Operation

For Alternative 3, construction activities would be reduced compared to the proposed Project since the Berth 102 wharf would not be constructed. Throughput also would be less than under the proposed Project (see Section 2.5.1.3 for more information) and annual TEUs in 2045 for Alternative 3 would represent 60 percent of TEUs under the proposed Project. Therefore, economic benefits such as jobs and income associated with both construction and operation would be similar but reduced.

## 7.3.9 Reduced Fill Alternative 4 – No Berth 100 South Construction and Operation

For Alternative 4, both construction activities and operations would also be less than for the proposed Project (see Section 2.5.1.4 for more information) and the associated economic benefits would therefore be less. Annual TEUs in 2045 for Alternative 4 would represent 90 percent of TEUs under the proposed Project. Therefore, economic effects during both construction and operation would be similar to those for the Project, as described above, but reduced in magnitude.

## 7.3.10 Reduced Construction and Operation Alternative 5 – Phase I Construction Only

For Alternative 5, construction activities and operations would be less than the amount for the proposed Project since only the Phase I Project components would be completed (see Section 2.5.1.5 for more information) and the associated economic benefits would be less. Annual TEUs in 2045 for Alternative 5 would represent 40 percent of TEUs under the proposed Project. Therefore, economic effects during construction and operation would be reduced in magnitude.

## 7.3.11 Omni Cargo Terminal Alternative 6 Construction and Operation

For the Omni Cargo Terminal Alternative (Alternative 6), construction-related employment would be greater than for the proposed Project in years 2009 and 2010 and the same in 2011. This would result in greater economic benefits from construction in those years than under the proposed Project. TEU throughput in 2045 for the Omni Cargo Terminal would represent 33 percent of the TEUs for the proposed Project in 2045, but additional types of cargo would be handled by the Omni Cargo Terminal including autos and break-bulk commodities that would not be a part of the proposed Project (see Section 2.5.1.6 for more information). The associated economic benefits, therefore, would differ from the proposed Project and would be less for container transport. The benefits associated with auto and break-bulk operations, however, would be greater than for the proposed Project.

## 7.3.12 Nonshipping Alternative 7 Construction and Operation

For Alternative 7, construction activities would be greater than for the proposed Project, and the resulting economic benefits from construction would be more than from the proposed Project. The alternative would involve construction of a Regional Center containing 27,800 square feet of retail space, 27,800 square feet of office space, and 1,295,000 square feet of light industrial space. During the years of 2009 and 2010, the construction workforce would be 2,640 and 870, respectively. This compares to 347 and 197, respectively, for the proposed Project. It is possible to derive a rough approximation of the number of employees who might work at the Regional Center. The following employee-to-space ratios are used: 950 square feet for retail, 250 square feet for office, and 400 square feet for light industrial. Using an employment multiplier of 1.8 results in the following employment estimates for the year 2030 and beyond: 4,650 direct workers, 3,710 secondary workers, and a total of 8,360 workers.

## 7.3.13 Other Economic Benefits

The foregoing analysis of the proposed Project and alternatives focused on expenditures from construction activities and Port Industry operations, and associated jobs, output, and tax revenues. The Port of Los Angeles MARAD Port Kit was used to estimate economic effects for the Berth 97-109 Container Terminal EIS/EIR; specifically, Port Industry benefits related to cargo movement and handling, and separately, economic effects from construction and capital investment related to the proposed Project. Economic activities (expenditures, jobs, and tax revenues) associated with Related Users, including port users and retail sales, were not included in the foregoing analysis. Examples of port users are local manufacturers who ship products to foreign markets, local wholesalers and distributors who receive foreign goods for resale or final assembly (such as in warehouse customization of automobiles with accessories or options), petroleum producers/crude oil processors, and import retailers.

When compared to Port Industry, Related Users typically represent a much larger contribution to the economy. A study for the Port of Los Angeles in the late 1990s (LAHD, not dated) suggests five jobs are created in port users and retail sales in the five-county region for every job attributable to the Port Industry (direct or secondary). A more recent study at the Port of Long Beach (Port of Long Beach, 2005) suggests a higher number, 6.7 jobs in port users and retail sales industries in the five-county region for every job attributable to the Port Industry. Other port economic studies have identified different ratios depending on how analysts define the various categories and what activities take place at an individual port.

If the 5 to 1 ratio for the Port of Los Angeles from the late 1990s holds for the proposed Project, the 5,949 jobs (net of proposed Project over No Project Alternative) in 2045 would imply an additional 29,745 jobs among port users and retail sales, and the indirect and induced effect from those industries. If the 6.7 to 1 ratio from the more recent Port of Long Beach study holds, the net gain of 5,949 project-related jobs in 2045 would imply the addition of 39,860 jobs in the five-county region.

It is important to note that while Port Industry activities are clearly dependent on the port, as they involve handling port cargo, jobs in the port user and retail sales sectors would probably continue to exist with or without the port so long as domestic consumption remains the same (although some of the jobs may move from the five-county region).

This is the reason for distinguishing "Port-dependent" industries (or Port Industry) from "Port-related" industries (Related Users) as was done for the Port of Long Beach study (Port of Long Beach, 2005).

## 7.3.14 Summary of Effects

### 7.3.14.1 Employment and Earnings

A comparison of employment effects for terminal operations is presented in Table 7.3-9. Net changes in employment attributable to terminal operations under the proposed Project could reach 5,949 jobs annually over No Project conditions by the year 2045. (These changes focus on Port Industry employment; Section 7.3.1.2 provides a summary of potential impacts from related users.) During construction activities, the maximum annual employment effect of the proposed Project would reach about 862 jobs.

When these Project-induced employment effects are compared to regional employment levels expected to occur at the corresponding times, their contribution accounts for less than 0.1 percent. A large share of the jobs created through implementation of the proposed Project falls within the "logistics" sector of the economy. Such jobs are relatively well paying, and provide substitutes for jobs being consistently lost from the manufacturing sector. The average annual pay for workers related to the proposed Project is relatively high, compared to average pay for the region. Average annual pay for direct, indirect, and induced jobs related to construction of the proposed Project is estimated at about $55,500, and average pay for direct, indirect, and induced operation jobs is estimated at over $60,000 (2005 dollars). For comparison, the average wage per job in Los Angeles County in 2005 was $46,228 (BEA, 2007).

It also is expected that additional job creation would accompany a number of off-Port infrastructural improvements, although the number is likely to be relatively small.

Given the highly integrated nature of the Southern California economy, and the prevalence of cross-county and inter-community commuting by workers between their place of work and place of residence, it is unlikely that a substantial number of workers would change their place of residence in response to the new Port-related employment opportunities. Such potential residential relocation is especially unlikely given that about half the new jobs created are secondary and, by their nature, distributed throughout the five-county region. Thus, in the absence of changes in place of residence by persons likely to fill the job opportunities, distributional effects to population, and thus housing assets, are not likely to occur. Accordingly, negligible impacts to population, housing, and community services and infrastructure are anticipated. Although it is unlikely that a substantial number of workers would change their place of residence because of the proposed Project, housing affordability for Port workers was identified as a concern in public comments and is discussed below.

The proposed Project would increase the number of direct, indirect, and induced jobs and income in the region and result in other economic benefits. While the economic impacts are beneficial, the increase in jobs attributable to the proposed Project would be relatively small compared to current and projected future employment in the larger economic region.

**Table 7.3-9.** Comparison of Alternatives: Operations Employment[a] Effects in Five-County Region.

| | 2005 | 2015 | 2045 | Percent of Proposed Project (2045) | 2005-2045 Maximum Annual Cargo in TEUs |
|---|---|---|---|---|---|
| GROSS EFFECTS: | | | | | |
| Proposed Project | 2,193 | 6,332 | 8,435 | NA | 1,551,000 |
| Alternative 1: No Project | 2,193 | 2,349 | 2,486 | 29.5% | 457,100 |
| Alternative 2: No Federal Action | 2,193 | 3,436 | 3,440 | 40.8% | 632,500 |
| Alternative 3: Reduced Fill, No Berth 102 | 2,193 | 4,450 | 5,090 | 60.3% | 936,000 |
| Alternative 4: Reduced Fill, No Berth 100 South | 2,193 | 5,797 | 7,570 | 89.8% | 1,392,000 |
| Alternative 5: Reduced Construction and Operation, Phase I Construction Only | 2,193 | 3,024 | 3,426 | 40.6% | 630,000 |
| Alternative 6: OMNI Cargo Terminal[2] | 2,193 | 2,372 | 2,754 | 32.7% | 506,467 |
| Alternative 7: Nonshipping Regional Center | 0 | 6,275 | 8,359 | 99.1% | Not Applicable |
| NET EFFECTS (Proposed Project or Alternative LESS No Project Alternative): | | | | | |
| Proposed Project | 0 | 3,983 | 5,949 | Not Applicable | |
| Alternative 1: No Project | 0 | 0 | 0 | 0.0% | |
| Alternative 2: No Federal Action | 0 | 1,087 | 954 | 16.0% | |
| Alternative 3: Reduced Fill, No Berth 102 | 0 | 2,101 | 2,604 | 43.8% | |
| Alternative 4: Reduced Fill, No Berth 100 South | 0 | 3,448 | 5,084 | 85.5% | |
| Alternative 5: Reduced Construction and Operation, Phase I Construction Only | 0 | 675 | 940 | 15.8% | |
| Alternative 6: OMNI Cargo Terminal | 0 | 23 | 268 | 4.5% | |
| Alternative 7: Nonshipping Regional Center | 0 | 3,926 | 5,873 | 98.7% | |

Notes:

[a] Sum of direct, induced, and indirect employment.

[b] Omni Terminal Alternative employment shown in table reflects only container shipments.

NA: Not Applicable

Source: CH2M HILL

### 7.3.14.2 Housing

In 2003, the median housing price in Los Angeles County was $375,000. By comparison, median housing prices in Ventura County and Orange County were higher, whereas those in Riverside and San Bernardino counties were lower. Home prices in communities near the Port vary widely: prices in Wilmington are considerably less than the average for Los Angeles County, whereas those in San Pedro are close to the Los Angeles County average. With the percentage of renter-occupied housing units in San Pedro and Wilmington over 60 percent in 2000, renters in these two communities comprise a greater share of the housing market than in Los Angeles County, which has a value of 52 percent.

The estimated average annual income for Port operations workers associated with the China Shipping terminal (including direct, indirect, and induced Port Industry jobs located at the Port and in the region) is over $60,000 (2005 dollars). This compares to the median household income in Los Angeles County ($48,248 in 2005) (Census, 2005). The average income would vary depending on industrial sector and occupation. For example, the estimated average income for workers in transportation and utilities, the sector comprising the largest number of workers, is approximately $63,000. By comparison, the model suggests workers in the retail trade and services sectors would earn approximately $29,000 and $40,000 per year, respectively. Total household income would be greater for Port workers whose households have more than one wage earner.

The U.S. Department of Housing and Urban Development calls housing costs – rent plus basic utilities or mortgage, tax, and insurance payments – affordable when they consume no more than 30 percent of a household's income. Based on this percentage, a $60,000 annual household income would be able to support about $1,800 per month in housing costs, which is less than enough to pay for the median priced $375,000 home. Assuming a 10 percent down payment and 6 percent interest rate, the monthly mortgage payment alone, without inclusion of utilities, tax, and insurance payments, would be $2,023 per month. With the likely addition of income from other family members, Port worker households would generally be more able to afford housing than the median household in Los Angeles County.

The increase in jobs associated with the proposed Project is modest when compared to total regional employment, and it is unlikely that workers would relocate to communities such as San Pedro and Wilmington to be close to the direct jobs. Thus, it is unlikely that the proposed Project would exert upward pressure on property values in these communities. Thus, it is unlikely that adverse impacts on current residents would occur.

### 7.3.14.3 Urban Blight

Concern exists regarding the possible nexus between "blighted" conditions in communities adjacent to the Port and activities at the Port, and this topic is addressed in Section 3.9.2.2. The term "blight" is used in a general sense to describe industrial conditions; however, the term has a very specific legal definition under redevelopment law and mainly refers to substantial physical deterioration of an area caused by physical or economic forces.

Adverse physical conditions include structures with serious code violations, buildings that are dilapidated and deteriorated, inadequate lot sizes or configurations for existing market conditions, or incompatible adjacent land uses that prevent the economic development of those or other parcels. Adverse economic conditions include depreciated or stagnant property values, abnormally high business vacancies or excessive vacant lots,

a lack of necessary commercial facilities that are normally found in neighborhoods (for example, grocery stores or banks), residential overcrowding, an excess of businesses that cater to adults, and crime rates that constitute a serious threat to public safety and welfare.

In the City of Los Angeles, the Community Redevelopment Agency Board and City Council are jointly responsible for making the determination that an area has a blighted condition. Once a determination of blight is made, and a redevelopment plan is approved by the City Council, redevelopment under the Community Redevelopment Law can occur. Redevelopment areas have been designated close to the Port in San Pedro (the Pacific Corridor Redevelopment Project area and Beacon Street Redevelopment Project area) and are addressed in Section 3.9.2.2. Additionally, the Port of Los Angeles has implemented a number of actions designed to enhance community quality of life and provide public access to visually stimulating and historically relevant developments within and adjacent to the Port.

One potential precursor of blight is depreciated or stagnant property values. Details regarding trends in property values in communities adjacent to the Project site are presented in Section 7.2.1.3. Residential property values in communities adjacent to the Port have increased in recent years and do not exhibit depreciated or stagnant values. The proposed Project would not adversely influence residential property values in the areas immediately adjacent to the Port. In addition, changes in property value are dependent on numerous factors unrelated to the Port including monetary interest rates, ease of access to employment centers, availability of quality education, and historic and existing zoning practices. Also, the proposed Project would increase the number of direct, indirect, and induced jobs and income in the region and would result in other economic benefits. As a consequence, the proposed Project would not result in blight impacts.