

# FINAL REPORT FOR THE SOUTH EAST LOS ANGELES COUNTY WORKFORCE INVESTMENT AREA



Los Angeles County Economic Development Corporation

## INDUSTRY CLUSTERS, EMPLOYMENT FORECAST, TARGET INDUSTRIES AND OCCUPATIONAL ANALYSIS

## LOS ANGELES COUNTY AND SELACO

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February 16, 2010

This report was prepared by the Consulting Practice of the Los Angeles County Economic Development Corporation (LAEDC).

As the Southern California region's premier economic development organization, the mission of the LAEDC is to attract, retain and grow businesses and jobs in the regions of Los Angeles County, as well as to identify trends and to effect positive change on the local economy.

The LAEDC Consulting Practice offers custom research with expertise in water, transportation, the environment, infrastructure, economic impact studies, and regional industry analysis. Our goal is to support clients, issues and projects of significance, and to deliver long-term value to the quality of life in our region and state.

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The Southeast Los Angeles County (SELACO) Workforce Investment Board is a private, non-profit corporation that focuses on community-based workforce and employment development. At its network of career centers, it provides employment and training services to assist area residents to gain skills necessary for job opportunities that are likely to lead to long-term employment. The WIB is also involved with promoting the growth of business in the region in partnership with other local, regional and state resources.

This report provides an economic overview of Los Angeles County in general and of the SELACO region in particular to provide a basis upon which the WIB can focus its efforts.

In Section 2, we review the current economic structure of the county by providing an industry cluster analysis of the economic base of the region. This analysis is extended to the SELACO region to highlight differences where appropriate.

Section 3 presents a ten-year industry forecast for Los Angeles County which highlights those industries which are expected to grow.

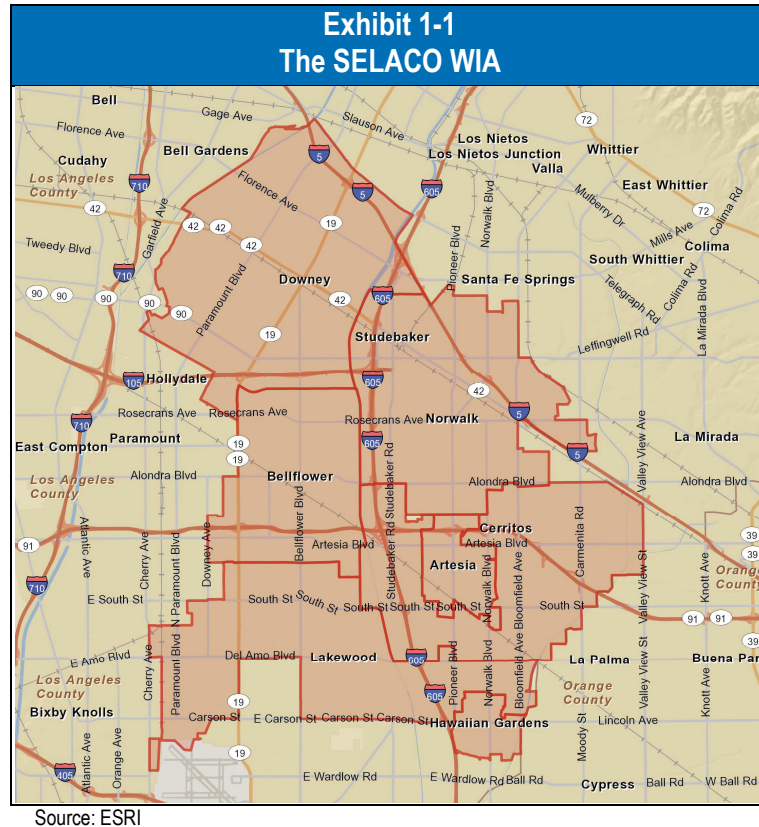
Together with the industrial structure of the region, the forecast and the relative strength of each industry in the SELACO region provide metrics from which we identify those industries which are most promising to target to job retention and expansion efforts. This analysis is presented in Section 4.

Finally, Section 5 provides detailed occupational data for each of the identified industries.

In the following pages, we first review a selection of demographic and socioeconomic data specific to the SELACO region as compared to the county as a whole.

## SELACO

The Southeast Los Angeles County Workforce Investment Area (SELACO WIA) comprises the cities of Artesia, Bellflower, Cerritos, Downey, Hawaiian Gardens, Lakewood and Norwalk, as shown in Exhibit 1-1.



The total population of SELACO in 2009 was 470,116, accounting for approximately 4.6 percent of the population of Los Angeles County. The largest single city in SELACO is Downey, with a population of almost 114,000, followed by Norwalk (population 109,282), Lakewood (81,771) and Bellflower (78,801).

These data are shown in Exhibit 1-2 on the following page for each of the cities in SELACO, for SELACO as a whole, and for Los Angeles County.

<b>Exhibit 1-2</b> <b>Population and Income (2009)</b> <b>SELACO and Los Angeles County</b>					
	Population	Households	Average Household Size	Median Household Income	Per Capita Income
Artesia	17,207	4,599	3.61	\$ 57,329	\$ 18,974
Bellflower	78,801	24,096	3.24	49,782	18,422
Cerritos	53,824	15,759	3.41	84,780	30,038
Downey	113,792	34,501	3.25	58,091	21,550
Hawaiian Gardens	15,439	3,559	4.34	45,742	12,142
Lakewood	81,771	27,041	3.02	71,855	26,394
Norwalk	109,282	27,296	3.91	59,491	16,958
<b>SELACO WIA</b>	<b>470,116</b>	<b>136,851</b>	<b>3.39</b>	<b>\$ 61,991</b>	<b>\$ 21,369</b>
<b>Los Angeles County</b>	<b>10,266,841</b>	<b>3,294,806</b>	<b>3.06</b>	<b>55,051</b>	<b>24,730</b>

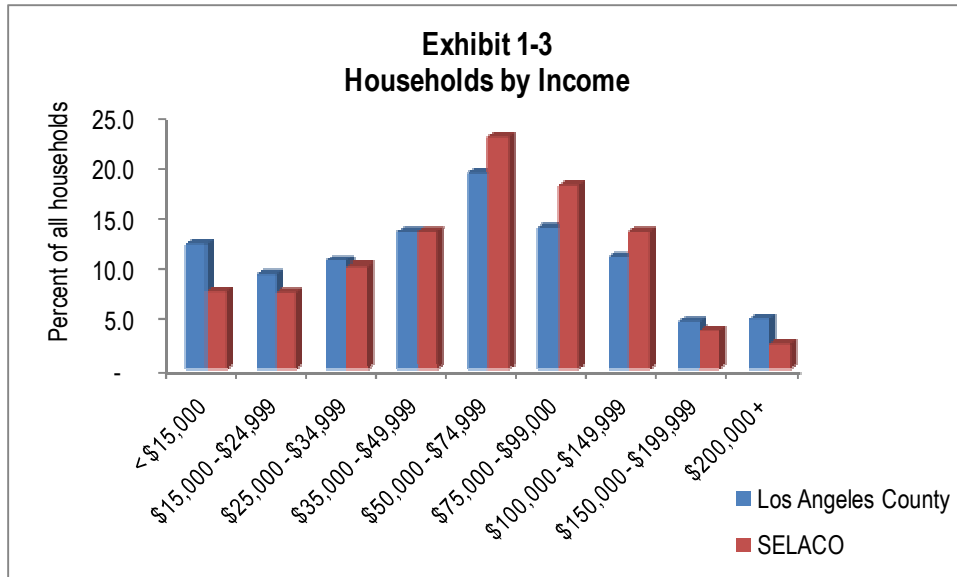
Source: 2000 Census of Population; ESRI estimates for 2009

Household size is on average larger in SELACO than in Los Angeles County (3.39 persons compared to 3.06 persons in Los Angeles County). Household size is especially large in Hawaiian Gardens, reaching an average of 4.34 persons.

Median household income in SELACO, estimated to be \$61,991, is higher than the average in Los Angeles County, but per capita income is somewhat lower (\$21,369 versus \$24,730). The higher average median household income in SELACO results from the high median incomes found in most cities within the area, but a relatively larger average household size than in Los Angeles County in general results in a lower per capita income in SELACO.

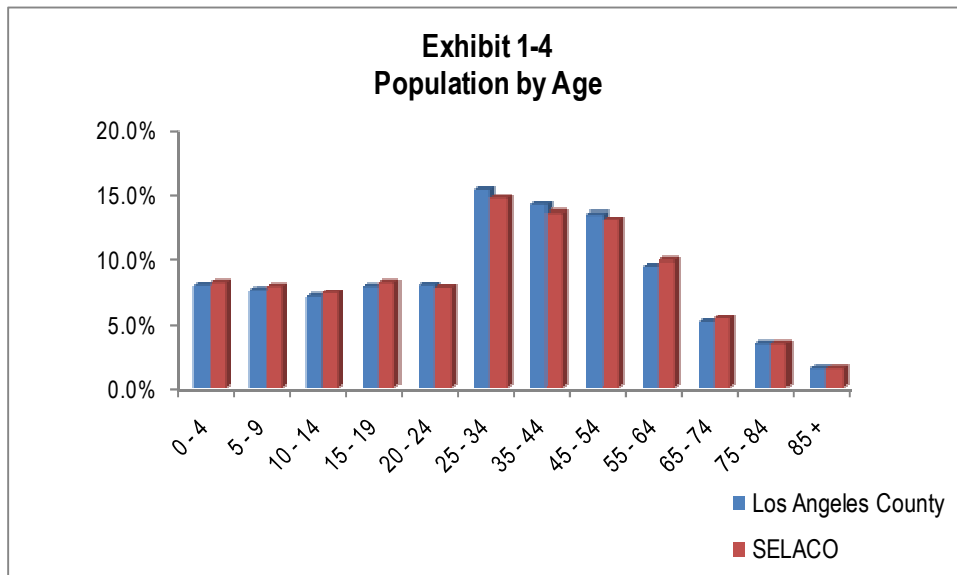
Per capita income is highest in the city of Cerritos, at \$30,038, followed by Lakewood (\$26,394) and Downey (\$21,550). The lowest per capita income at the city level in SELACO is in Hawaiian Gardens, with a per capita income of \$12,142.

The distribution of household income in SELACO is shown in Exhibit 1-3. Households in SELACO have a higher percentage of higher income than in Los Angeles County as a whole. While 45 percent of households in Los Angeles County earn less than \$50,000 per year, only 39 percent of households in SELACO do. The percentage of households in SELACO in income brackets \$50,000 to \$75,000, \$75,000 to \$100,000 and \$100,000 to \$150,000 are relatively more than in Los Angeles County.



Source: 2000 Census of Population; ESRI estimates for 2009

The demographic makeup of the population in SELACO is representative of the county as a whole, with just slightly more children. The age distribution is shown in Exhibit 1-4. Approximately 72 percent of the population in SELACO is over the age of 18 years, compared to 73.2 percent in Los Angeles County.



Source: 2000 Census of Population; ESRI estimates for 2009

Similarly, race and ethnicity in SELACO is representative of the county. In SELACO, 42.3 percent of the population is white and 52.8 percent is of Hispanic origin, compared to 44.5 percent and 50.7 percent, respectively, in Los Angeles County.

The population of SELACO aged 25 and over shows a mixed performance for educational attainment levels compared to Los Angeles County. These data are shown in Exhibit 1-5.

<b>Exhibit 1-5</b> <b>Educational Attainment of Population 25 Years and Older (2009)</b> <b>SELACO and Los Angeles County</b>				
	SELACO		Los Angeles County	
	Number	% of total	Number	% of total
No High School Diploma	61,510	21.4	1,623,810	25.5
High School Graduate	79,900	27.8	1,394,570	21.9
Some College, No Degree	60,650	21.1	1,158,960	18.2
Associate Degree	22,710	7.9	420,280	6.6
Bachelor's Degree	45,410	15.8	1,165,320	18.3
Graduate / Professional Degree	17,250	6.0	604,950	9.5
<b>Total *</b>	<b>287,426</b>	<b>100.0</b>	<b>6,367,889</b>	<b>100.0</b>

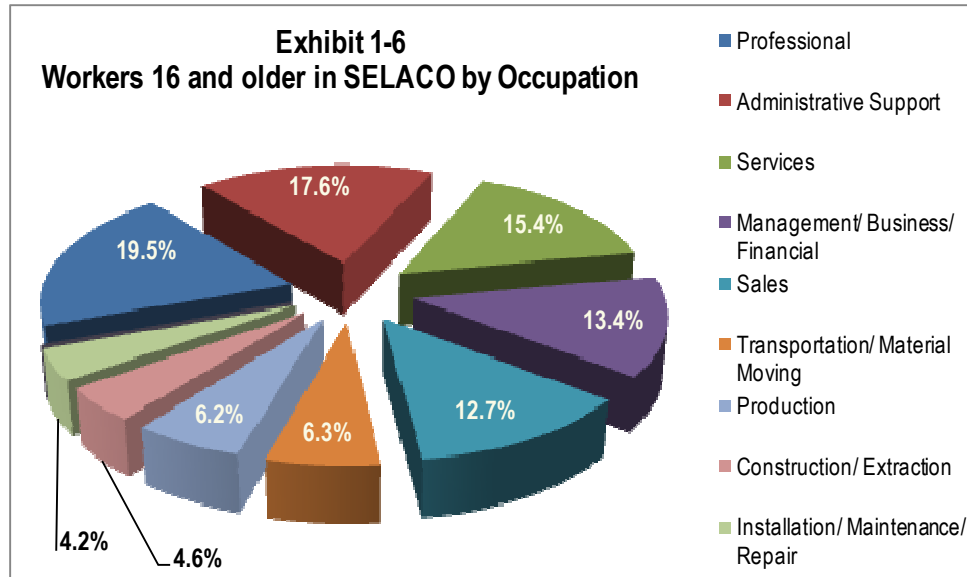
\* May not sum due to rounding

Source: 2000 Census of Population; ESRI estimates for 2009

The share of this population with at least a high school diploma is higher in SELACO, with 49.2 percent compared to 47.4 percent in Los Angeles County, but the region has a relatively smaller share with a bachelor's degree or higher (21.8 percent in SELACO versus 27.8 percent in Los Angeles County). However, those with some college are somewhat better represented.

The workforce in SELACO is largely white collar, with 78.6 percent employed in white collar occupations. The breakdown of employment by occupation is shown in Exhibit 1-6.

Almost 20 percent of the workforce is employed in professional occupations, followed by almost 18 percent in administrative support and 15 percent in service occupations.



Source: 2000 Census of Population; ESRI estimates for 2009

In this section, we review the overall size, performance and characteristics of the economic base of Los Angeles County by analyzing its industrial structure as organized into industry clusters. These industry clusters have been identified as key drivers of the regional economy. We investigate fifteen export-oriented industry clusters, including: Automotive Manufacturing and Wholesaling; Entertainment; Fashion Design, Manufacturing and Wholesaling; Financial Services; Food Products; Furniture and Home Furnishings; Goods Movement; Health Services and Biomedical; Higher Education; Jewelry Manufacturing and Wholesaling; Materials and Machinery; Professional and Business Services; Technology; Tourism and Hospitality; and Wholesale Trade.

In addition, we review six population-serving industry clusters which are significant sources of employment, including: Construction; Food Services and Drinking Places; Real Estate; Repair and Maintenance; Retail Trade; and Waste Management and Remediation Services.

Before our examination of each industry cluster begins, we first summarize cluster employment in Los Angeles County and SELACO. Exhibit 2-1 presents the employment and relative size of the two types of industry clusters, export-oriented and population-serving, in Los Angeles County and in the SELACO region.

<b>Exhibit 2-1</b> <b>Cluster Employment (2008)</b> <b>Los Angeles County and SELACO</b>				
	Los Angeles County		SELACO	
	Number	% of total	Number	% of total
Export-oriented clusters	1,991,037	47.8	57,937	42.3
Population-serving clusters	955,146	22.9	43,641	31.9
Non-classified industries	1,223,245	29.3	35,318	25.8
<b>Total *</b>	<b>4,169,428</b>	<b>100.0</b>	<b>136,896</b>	<b>100.0</b>

\* May not sum due to rounding  
Source: CA EDD; LAEDC

In total, in 2008 there were 4,169,428 jobs in Los Angeles County. Of these, 47.8 percent, or 1,991,037, were employed in export-oriented industry clusters and 22.9 percent were in the six population-serving clusters. An additional 29.3 percent of employment was in industries that have not been classified, including state and local government.

Employment in the SELACO region is somewhat less concentrated in export-oriented industry clusters compared to Los Angeles County, accounting for less than 42.3 percent of

employment, while employment in population-serving industries is higher than in Los Angeles County, accounting for 31.9 percent of total employment.

Employment by industry cluster in Los Angeles County and in SELACO is summarized in Exhibit 2-2. The industry clusters are shown in descending order of employment in Los Angeles County.

<b>Exhibit 2-2</b> <b>Cluster Employment (2008)</b> <b>Los Angeles County and SELACO</b>				
	Los Angeles County		SELACO	
	Number	% of total	Number	% of total
<b>Export-Oriented Industry Clusters</b>				
Health Services and Biomedical	363,964	8.7	17,989	13.1
Professional and Business Services	267,744	6.4	4,765	3.5
Entertainment	261,784	6.3	497	0.4
Wholesale Trade	159,105	3.8	10,531	4.6
Technology	151,032	3.6	1,308	1.0
Higher Education	130,705	3.1	1,391	1.0
Materials and Machinery	120,320	2.9	3,741	2.7
Goods Movement	115,181	2.8	1,378	1.0
Fashion Design, Manufacturing, Wholesaling	104,242	2.5	1,152	0.8
Financial Services	103,981	2.5	2,684	2.0
Tourism and Hospitality	84,435	2.0	2,949	2.2
Food Products	63,588	1.5	1,808	1.3
Furniture and Home Furnishings	35,711	0.9	734	0.5
Automotive Manufacturing and Wholesaling	22,681	0.5	772	0.6
Jewelry Manufacturing and Wholesaling	6,562	0.2	42	0.0
<b>Export-Oriented Clusters Total</b>	<b>1,991,038</b>	<b>47.8</b>	<b>47,541</b>	<b>34.7</b>
<b>Population-Serving Industry Clusters</b>				
Retail Trade	418,294	10.0	22,645	16.5
Food Services and Drinking Places	287,049	6.9	12,128	8.9
Construction	145,660	3.5	4,062	3.0
Real Estate	54,194	1.3	2,017	1.5
Repair and Maintenance	40,936	1.0	2,668	1.9
Waste Management and Remediation Services	9,013	0.2	117	0.1
<b>Population-Serving Clusters Total</b>	<b>955,146</b>	<b>22.9</b>	<b>43,641</b>	<b>31.9</b>
<b>Non-classified industries</b>	<b>1,223,245</b>	<b>29.3</b>	<b>45,714</b>	<b>33.4</b>
<b>Total *</b>	<b>4,169,428</b>	<b>100.0</b>	<b>136,896</b>	<b>100.0</b>

\* May not sum due to rounding  
Source: CA EDD; LAEDC

At the county level, the Health Services and Biomedical industry cluster is the largest, employing 363,964 people, or 8.7 percent of all employment in Los Angeles County, in 2008. In terms of relative size, this was also the largest cluster in the SELACO region, employing 17,989 people, or 13.1 percent of all employed in SELACO.



The lower portion of the exhibit displays the population-serving industry clusters. While not traditionally considered targets for development, these industries are clearly significant employment generators and should be included in our analysis.

Individual industry clusters, presented in the same order as in Exhibit 2-2, are reviewed on the following pages. For each industry cluster, we report the number of establishments, the employment, the total payroll and the total output in Los Angeles County in 2008 (the most recent year for which data is available). We provide a breakdown of employment in the cluster by industry (or sub-industry) and we report the average annual wage by industry (or sub-industry) at the county level. In addition, we report the number of establishments, the total employment and total output in each cluster in the SELACO region, and employment by industry (or sub-industry).

Definitions of the clusters are derived from those established by the Kyser Center for Economic Research. For the purposes of our analysis, in particular to adequately account for population-serving clusters, we have made minor adjustments to those original definitions.



## Health Services and Biomedical

Los Angeles County (2008)

### Establishments



**22,201**  
5.3% of total

### Employment



**363,964 Jobs**  
8.7% of total

### Annual Payroll



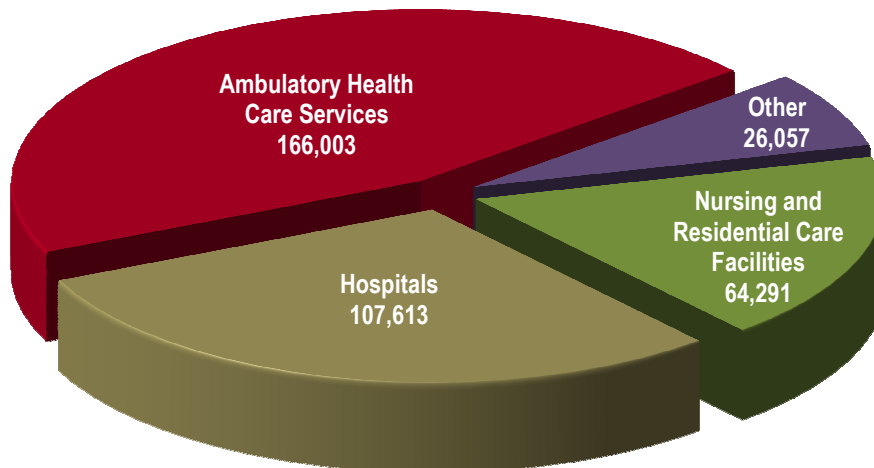
**\$19,161 Million**  
8.9% of total

### Output

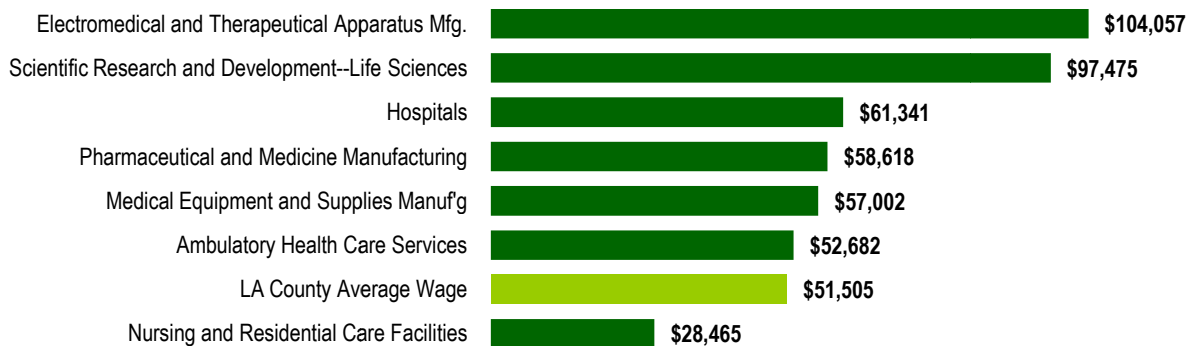


**\$57.4 Billion**  
6.0% of total

### Employment by Industry



### Average Annual Wages



Sources: CA EDD; Minnesota IMPLAN Group, Inc.; LAEDC

## Health Services and Biomedical

SELACO (2008)

### Establishments



**830**  
6.7% of total

### Employment



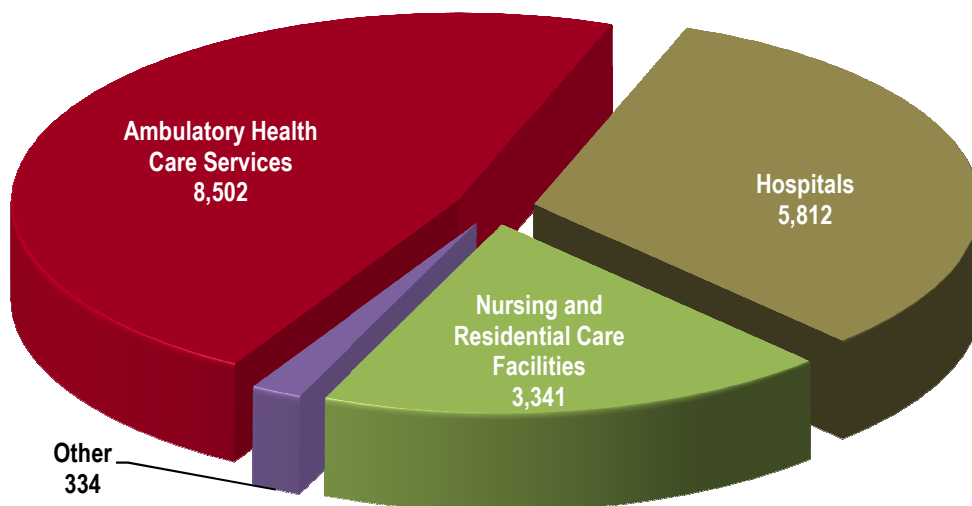
**17,989 Jobs**  
13.1% of total

### Output



**\$2,918 Million**  
10.0% of total

### Employment by Industry



Sources: CA EDD; Minnesota IMPLAN Group, Inc.; LAEDC

## Professional and Business Services

Los Angeles County (2008)

### Establishments



**28,674**  
6.8% of total

### Employment



**267,744 Jobs**  
6.4% of total

### Annual Payroll



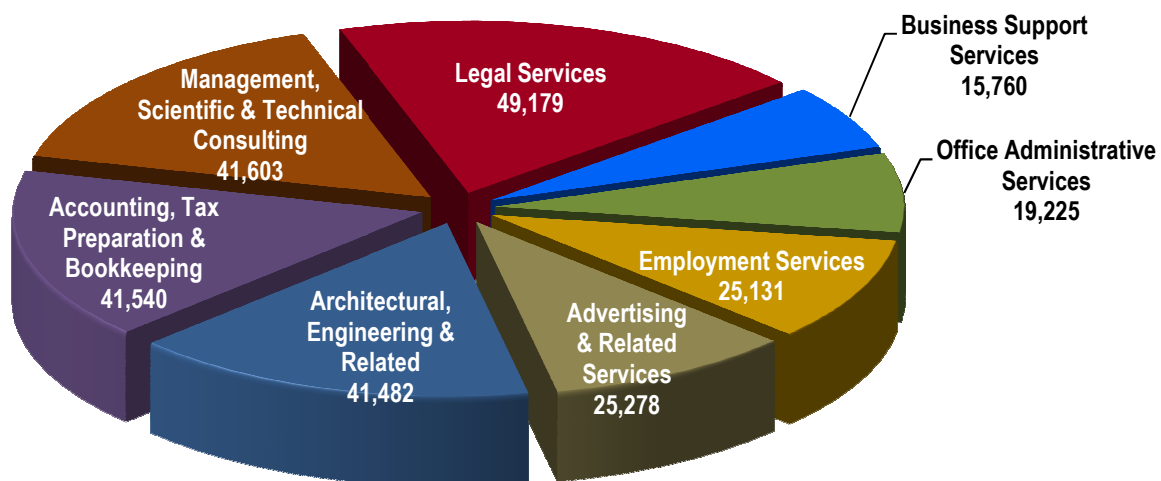
**\$19,986 Million**  
9.3% of total

### Output

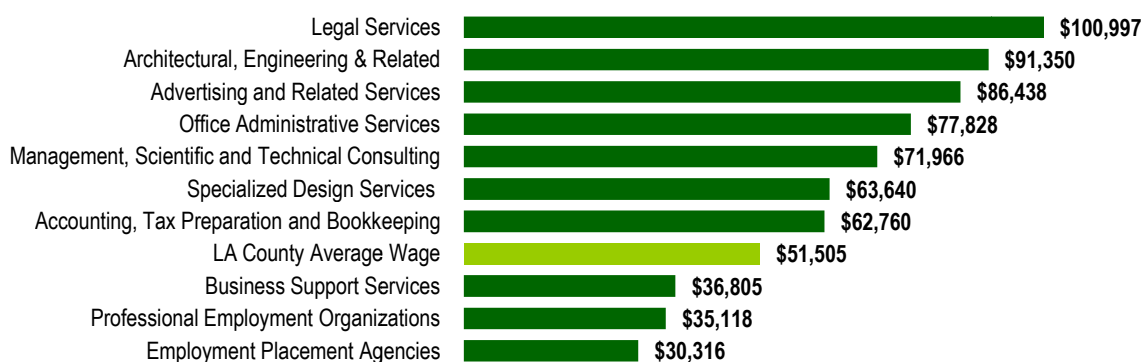


**\$63.9 Billion**  
6.7% of total

### Employment by Industry



### Average Annual Wages



Sources: CA EDD; Minnesota IMPLAN Group, Inc.; LAEDC

## Professional and Business Services

SELACO (2008)

### Establishments



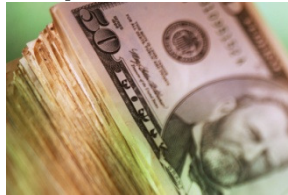
**565**  
4.5% of total

### Employment



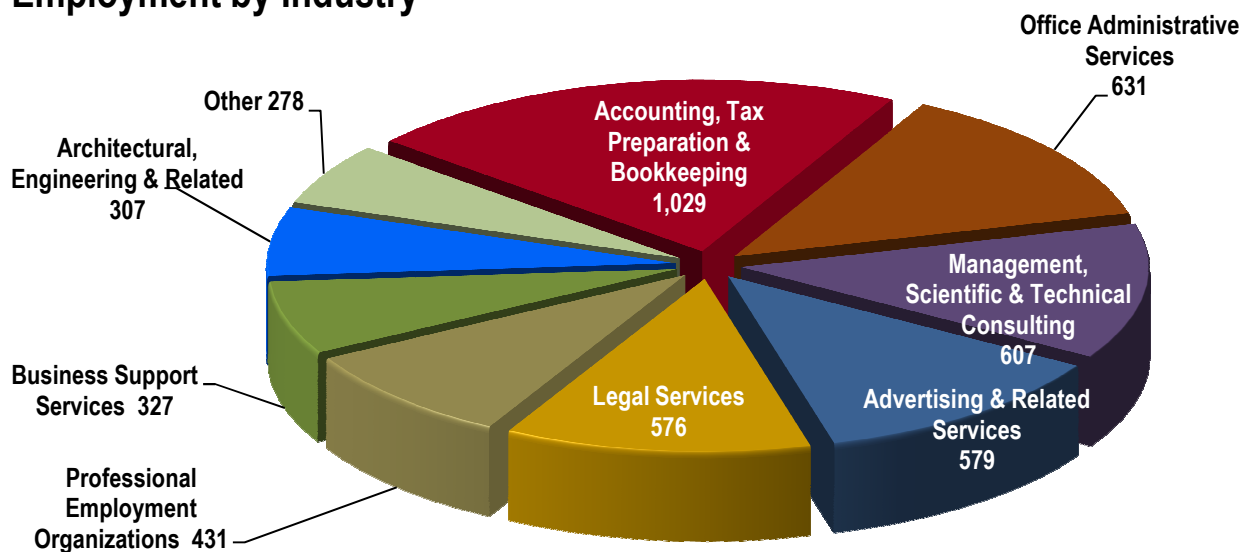
**4,765 Jobs**  
3.5% of total

### Output



**\$1,707 Million**  
5.8% of total

### Employment by Industry



Sources: CA EDD; Minnesota IMPLAN Group, Inc.; LAEDC

## Entertainment

Los Angeles County (2008)

### Establishments



**14,673**  
3.5% of total

### Employment



**261,784 Jobs**  
6.3% of total

### Annual Payroll



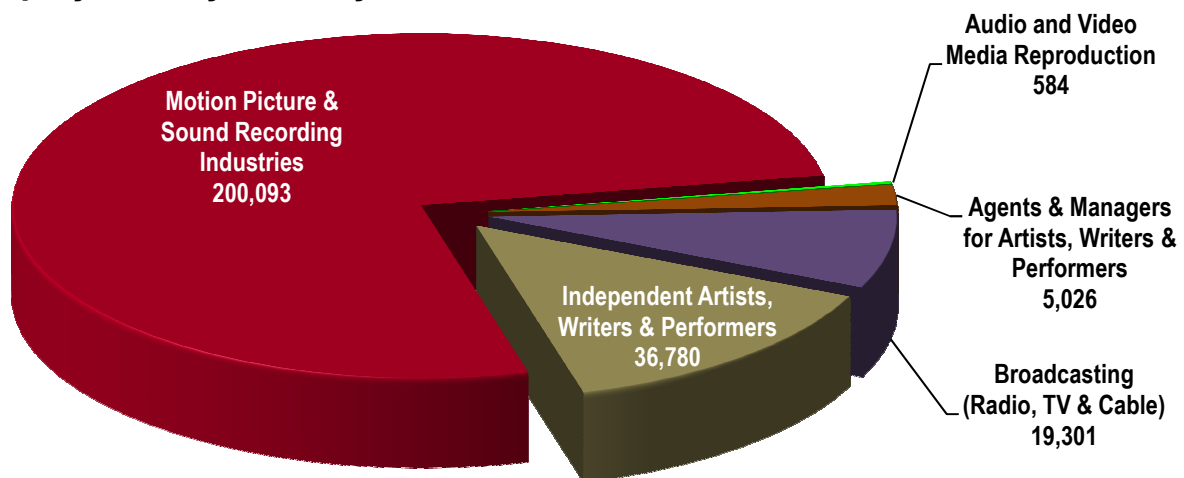
**\$32,602 Million**  
15.2% of total

### Output

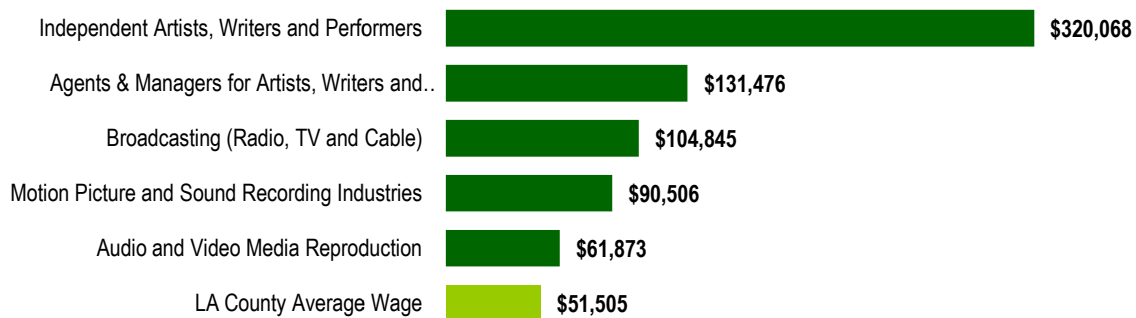


**\$102.1 Billion**  
10.7% of total

### Employment by Industry



### Average Annual Wages



Sources: CA EDD; Minnesota IMPLAN Group, Inc.; LAEDC

## Entertainment

SELACO (2008)

### Establishments



**31**  
0.3% of total

### Employment



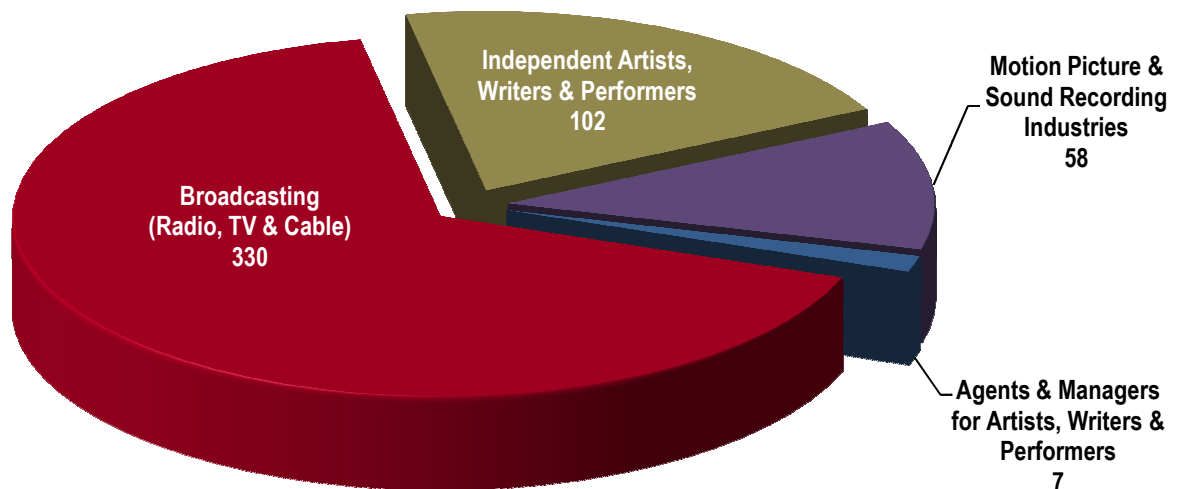
**497 Jobs**  
0.4% of total

### Output



**\$576 Million**  
2.0% of total

### Employment by Industry



Sources: CA EDD; Minnesota IMPLAN Group, Inc.; LAEDC



## Wholesale Trade

Los Angeles County (2008)

### Establishments



**13,783**  
3.3% of total

### Employment



**159,105 Jobs**  
3.8% of total

### Annual Payroll



**\$8,683 Million**  
4.0% of total

### Output



**\$32.9 Billion**  
3.4% of total

### Employment by Industry



### Average Annual Wages



Sources: CA EDD; Minnesota IMPLAN Group, Inc.; LAEDC

## Wholesale Trade

---

SELACO (2008)

### Establishments



**375**  
3.0% of total

### Employment



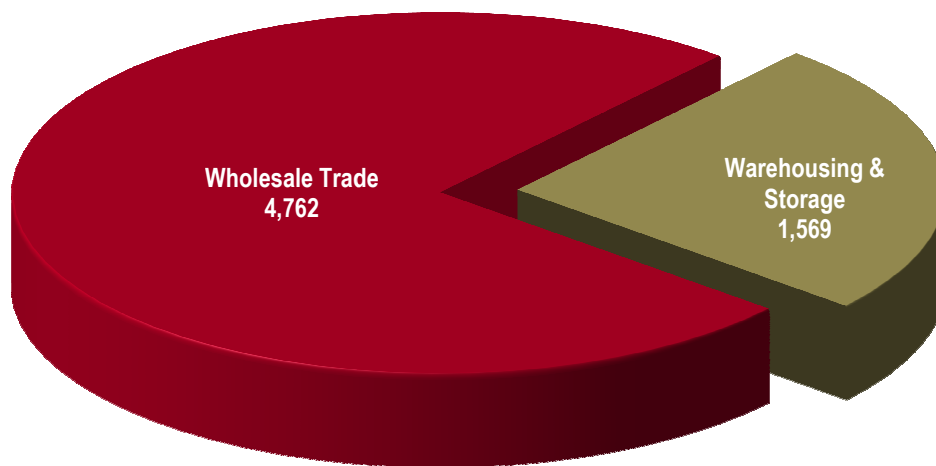
**6,331 Jobs**  
4.6% of total

### Annual Payroll



**\$1,036 Million**  
3.5% of total

### Employment by Industry

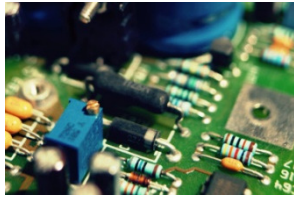


Sources: CA EDD; Minnesota IMPLAN Group, Inc.; LAEDC

## Technology

Los Angeles County (2008)

### Establishments



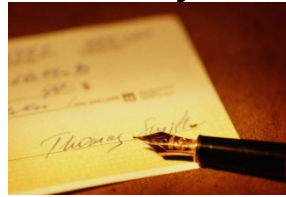
**5,572**  
1.3% of total

### Employment



**151,032 Jobs**  
3.6% of total

### Annual Payroll



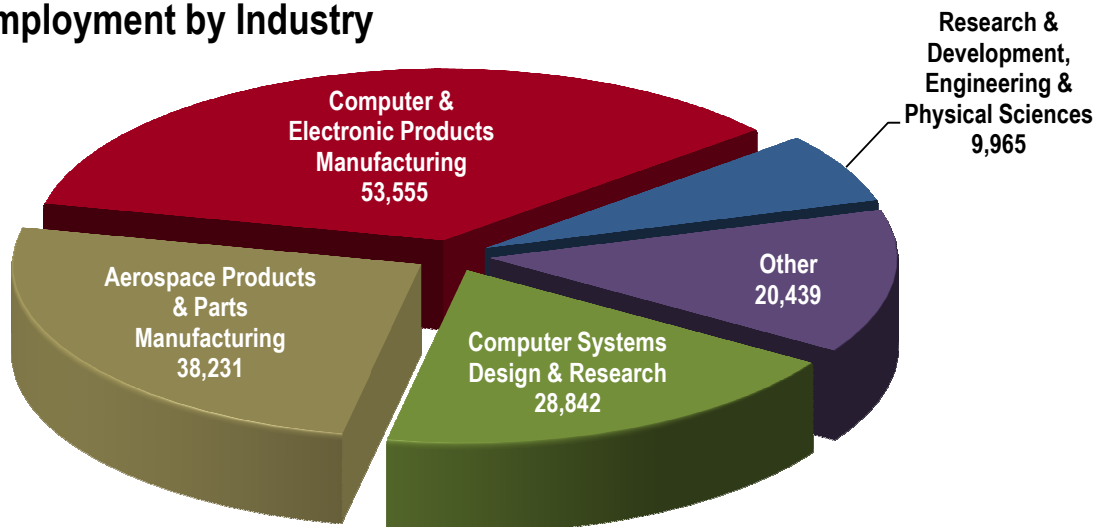
**\$13,150 Million**  
6.1% of total

### Output

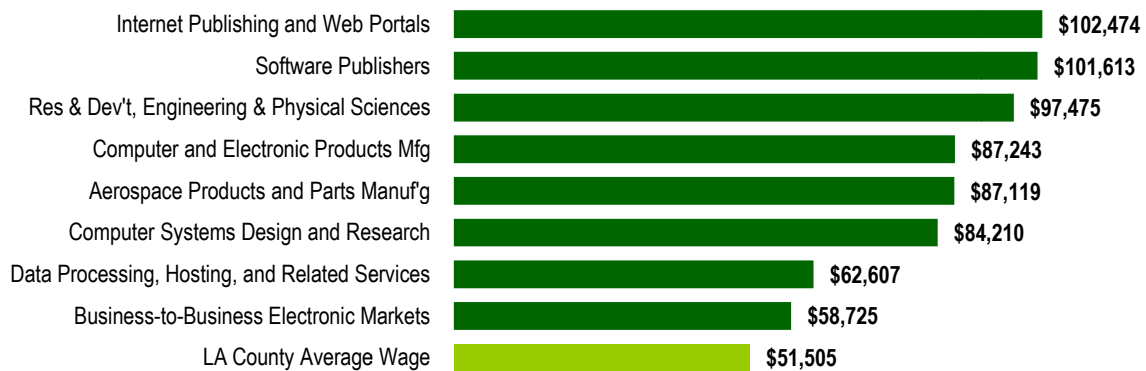


**\$73.3 Billion**  
7.7% of total

### Employment by Industry



### Average Annual Wages



Sources: CA EDD; Minnesota IMPLAN Group, Inc.; LAEDC

## Technology

SELACO (2008)

### Establishments



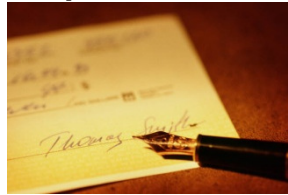
**107**  
0.9% of total

### Employment



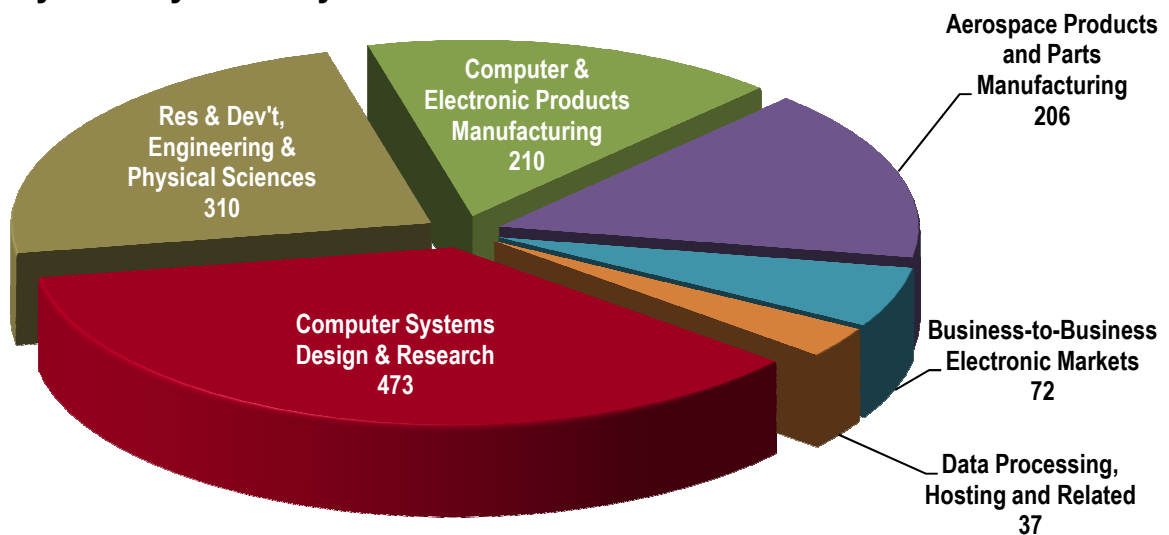
**1,308 Jobs**  
1.0% of total

### Output



**\$567 Million**  
1.9% of total

### Employment by Industry

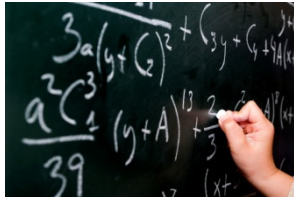


Sources: CA EDD; Minnesota IMPLAN Group, Inc.; LAEDC

## Higher Education

Los Angeles County (2008)

### Establishments



**1,564**  
0.4% of total

### Employment



**130,705 Jobs**  
3.1% of total

### Annual Payroll



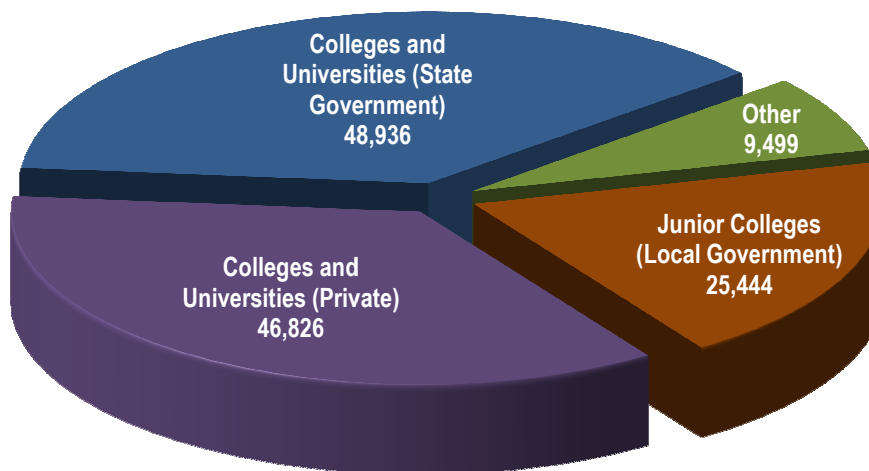
**\$6,386 Million**  
3.0% of total

### Output

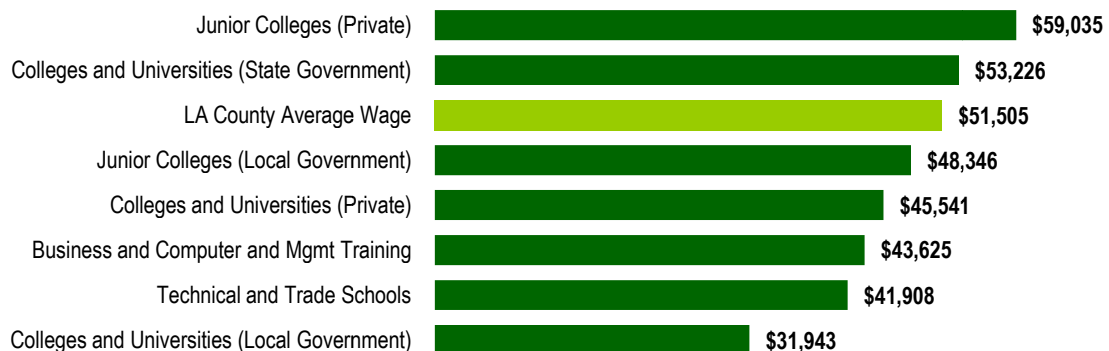


**\$12.9 Billion**  
1.4% of total

### Employment by Industry



### Average Annual Wages



Sources: CA EDD; Minnesota IMPLAN Group, Inc.; LAEDC

## Higher Education

SELACO (2008)

### Establishments



**15**

0.1% of total

### Employment



**1,391 Jobs**

1.0% of total

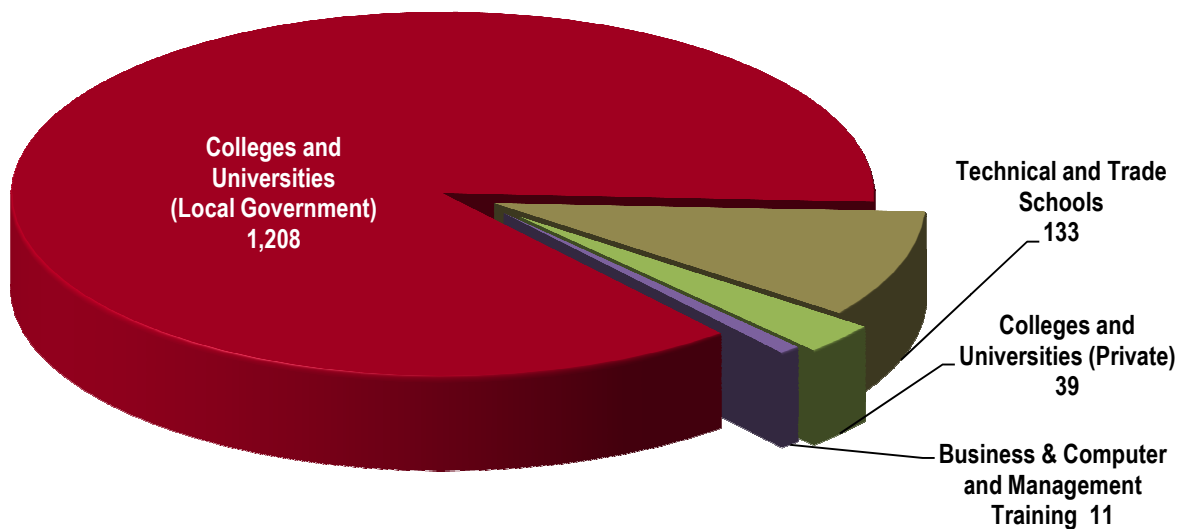
### Output



**\$320 Million**

1.1% of total

### Employment by Industry



Sources: CA EDD; Minnesota IMPLAN Group, Inc.; LAEDC

## Materials and Machinery

Los Angeles County (2008)

### Establishments



**5,086**  
1.2% of total

### Employment



**120,320 Jobs**  
2.9% of total

### Annual Payroll



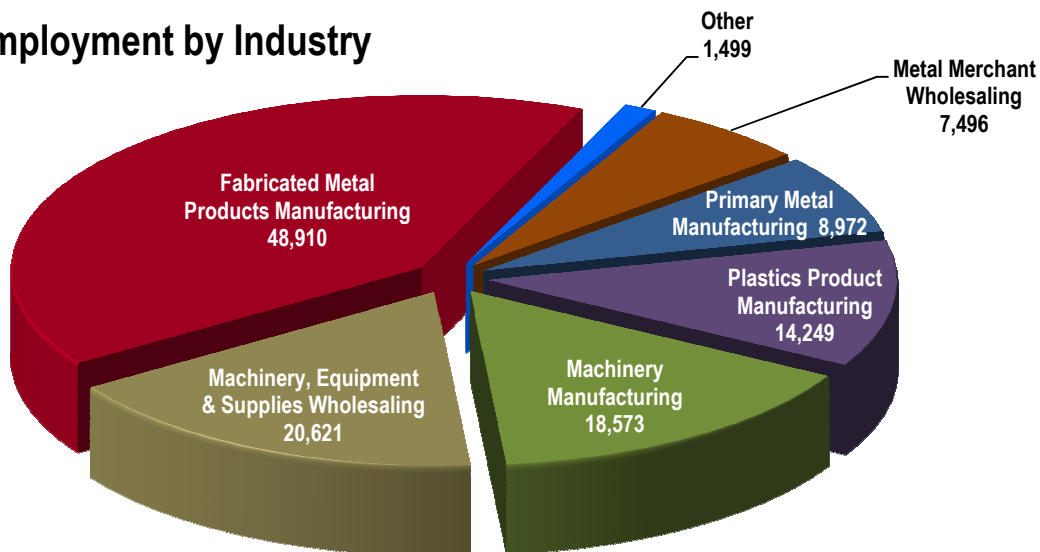
**\$6,329 Million**  
2.9% of total

### Output

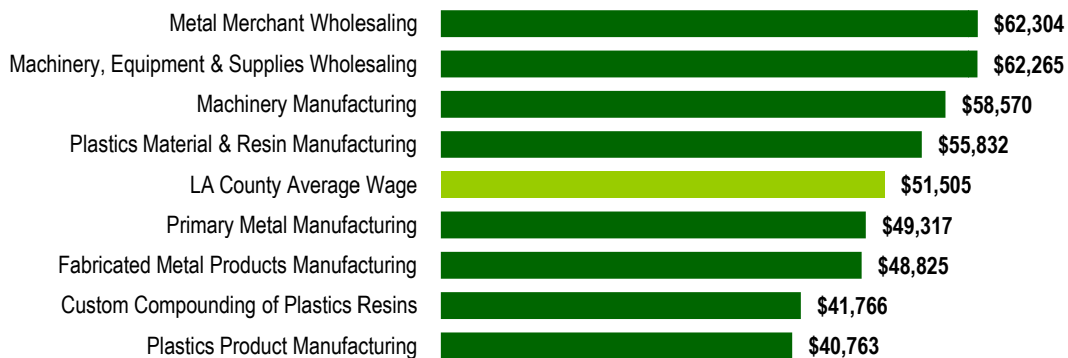


**\$35.1 Billion**  
3.7% of total

### Employment by Industry



### Average Annual Wages



Sources: CA EDD; Minnesota IMPLAN Group, Inc.; LAEDC



## Materials and Machinery

SELACO (2008)

### Establishments



**183**

1.5% of total

### Employment



**3,741 Jobs**

2.7% of total

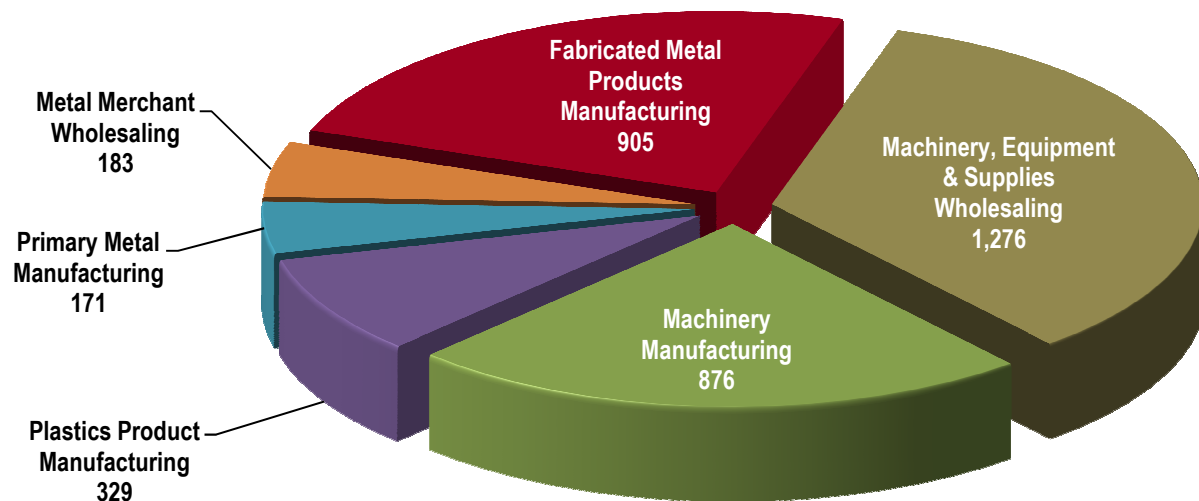
### Output



**\$854 Million**

2.9% of total

### Employment by Industry



Sources: CA EDD; Minnesota IMPLAN Group, Inc.; LAEDC



## Goods Movement

Los Angeles County (2008)

### Establishments



**3,385**  
0.8% of total

### Employment



**115,181 Jobs**  
2.8% of total

### Annual Payroll



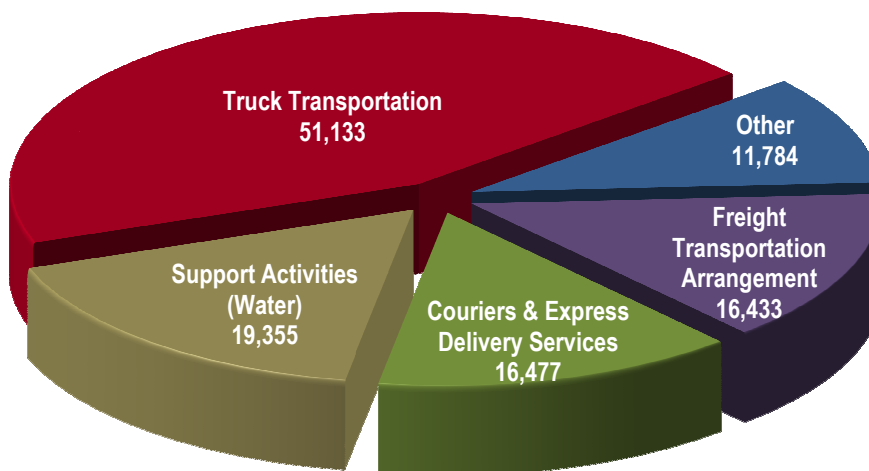
**\$6,093 Million**  
2.8% of total

### Output

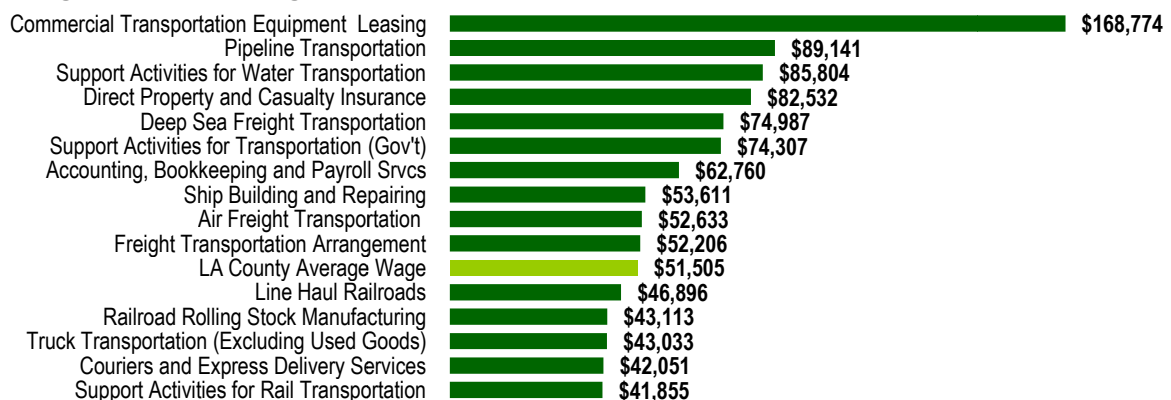


**\$16.8 Billion**  
1.8% of total

### Employment by Industry



### Average Annual Wages



Sources: CA EDD; Minnesota IMPLAN Group, Inc.; LAEDC

## Goods Movement

SELACO (2008)

### Establishments



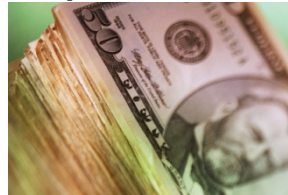
**115**  
0.9% of total

### Employment



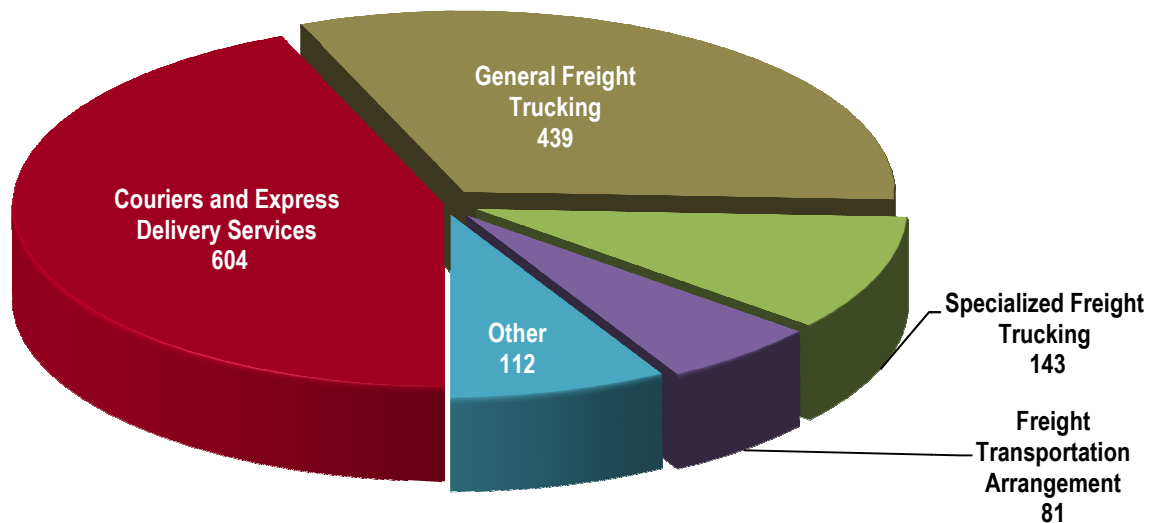
**1,378 Jobs**  
1.0% of total

### Output



**\$386 Million**  
1.3% of total

### Employment by Industry



Sources: CA EDD; Minnesota IMPLAN Group, Inc.; LAEDC

# Fashion Design, Manufacturing and Wholesaling

Los Angeles County (2008)

## Establishments



**5,831**  
1.4% of total

## Employment



**104,242 Jobs**  
2.5% of total

## Annual Payroll



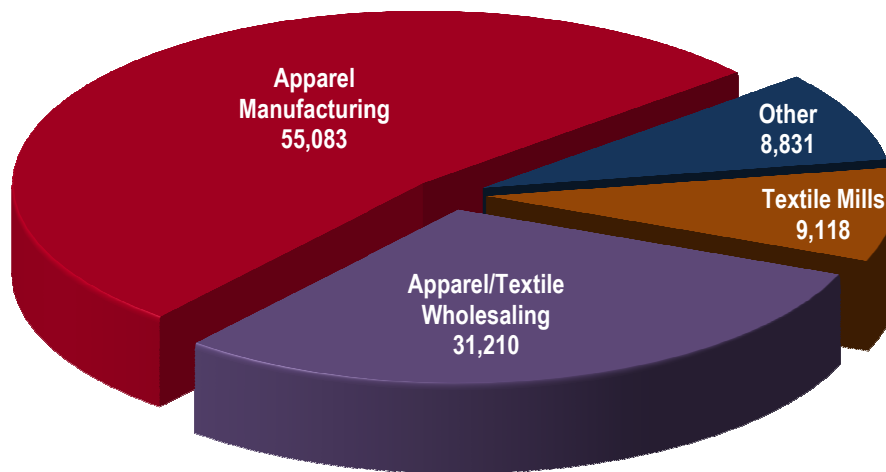
**\$3,907 Million**  
1.8% of total

## Output

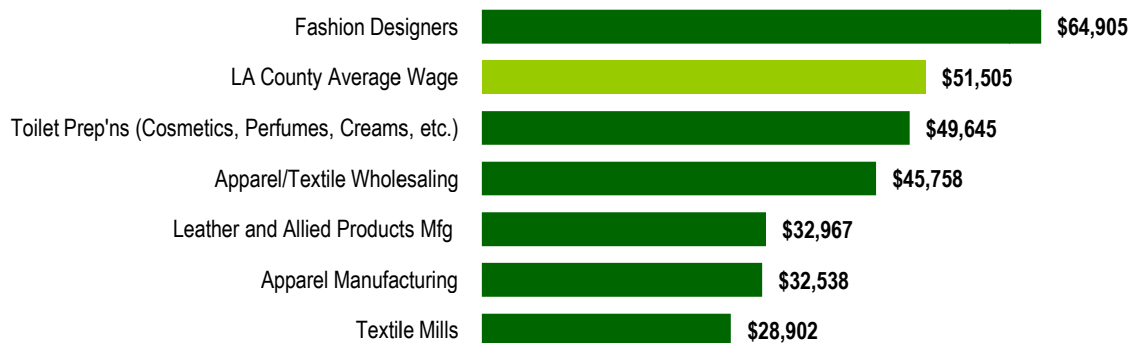


**\$22.4 Billion**  
2.4% of total

## Employment by Industry



## Average Annual Wages



Sources: CA EDD; Minnesota IMPLAN Group, Inc.; LAEDC

## Fashion Design, Manufacturing and Wholesaling

SELACO (2008)

### Establishments



**141**

1.1% of total

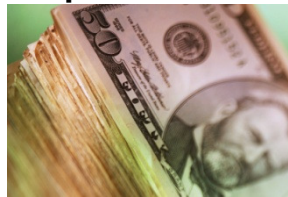
### Employment



**1,152 Jobs**

0.8% of total

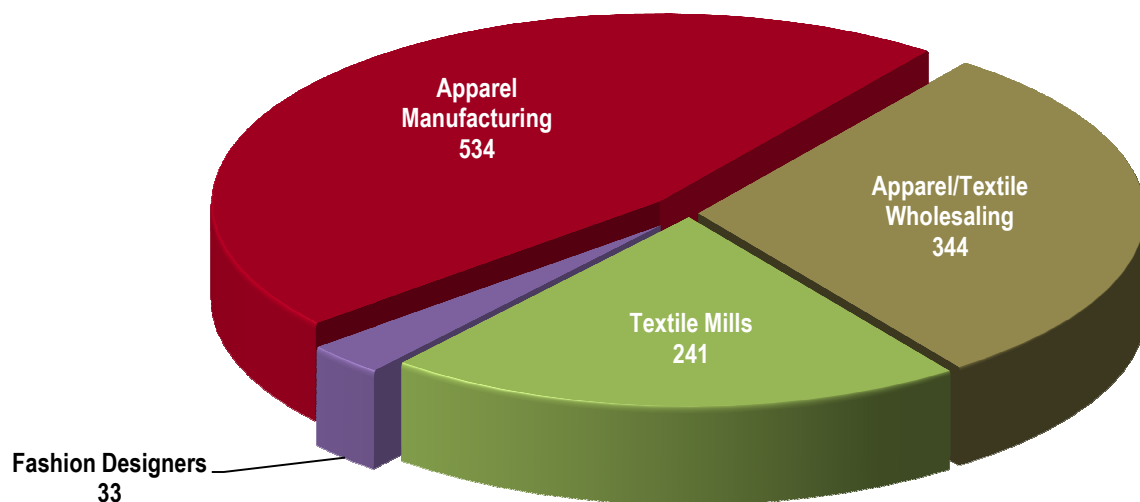
### Output



**\$337 Million**

1.1% of total

### Employment by Industry



Sources: CA EDD; Minnesota IMPLAN Group, Inc.; LAEDC

## Financial Services

Los Angeles County (2008)

### Establishments



**8,024**  
1.9% of total

### Employment



**103,981 Jobs**  
2.5% of total

### Annual Payroll



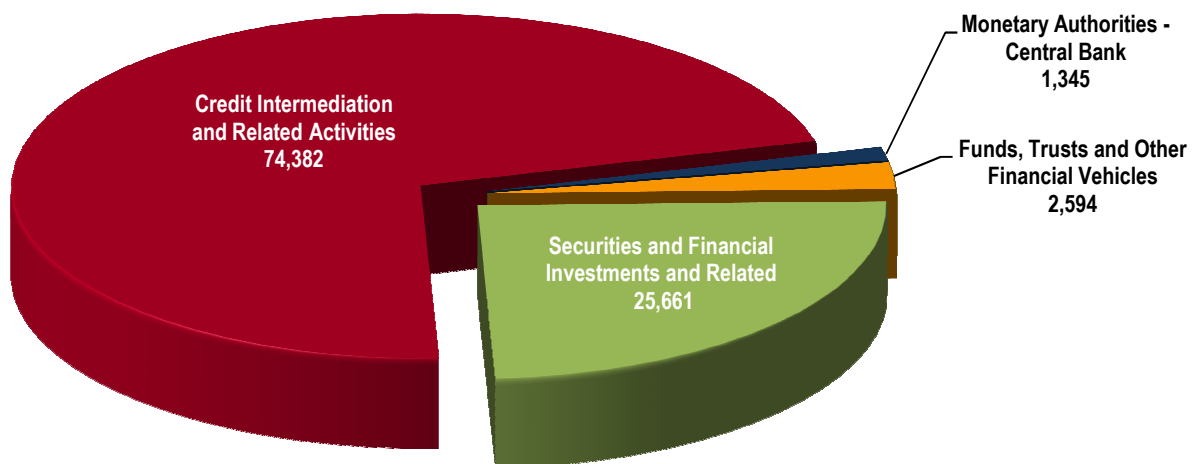
**\$10,699 Million**  
5.0% of total

### Output

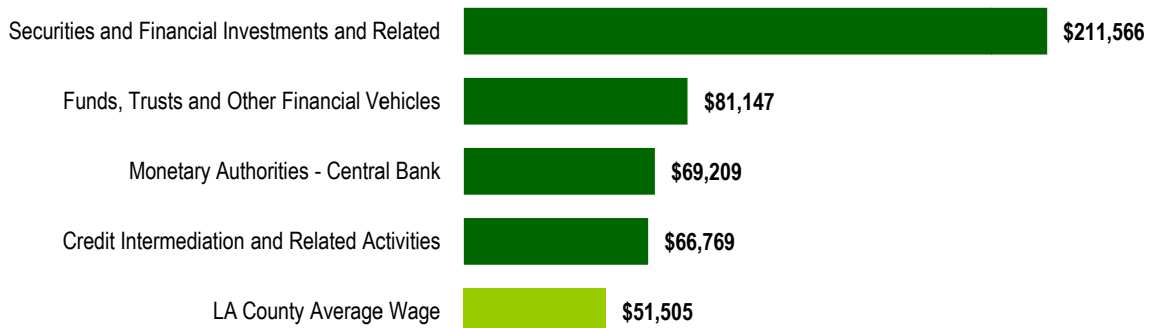


**\$41.1 Billion**  
4.3% of total

### Employment by Industry



### Average Annual Wages



Sources: CA EDD; Minnesota IMPLAN Group, Inc.; LAEDC

## Financial Services

SELACO (2008)

### Establishments



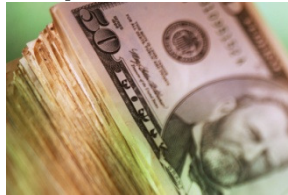
**294**  
2.4% of total

### Employment



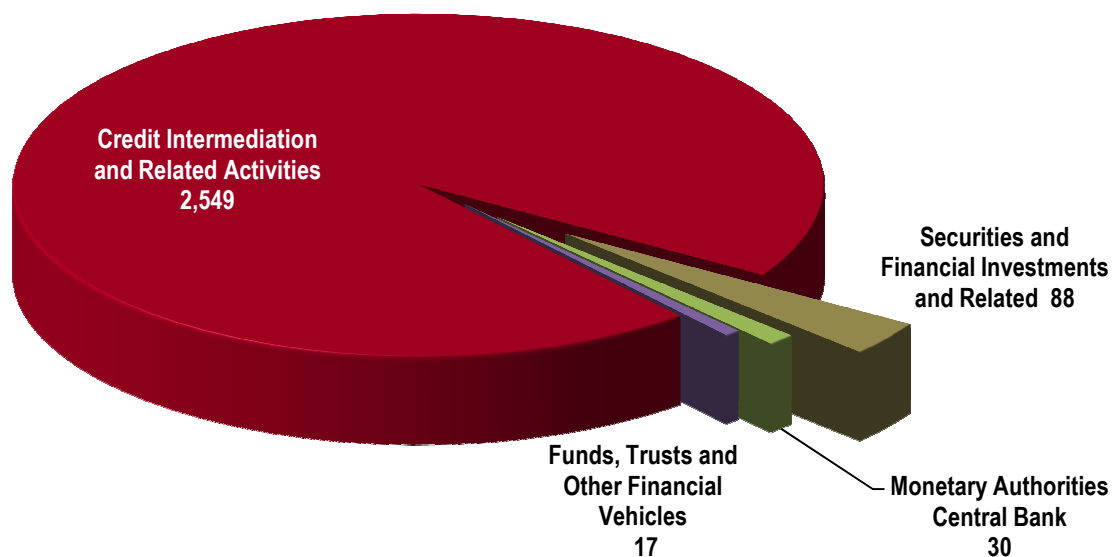
**2,684 Jobs**  
2.0% of total

### Output



**\$911 Million**  
3.1% of total

### Employment by Industry



Sources: CA EDD; Minnesota IMPLAN Group, Inc.; LAEDC

## Tourism and Hospitality

Los Angeles County (2008)

### Establishments



**2,918**  
0.7% of total

### Employment



**84,435 Jobs**  
2.0% of total

### Annual Payroll



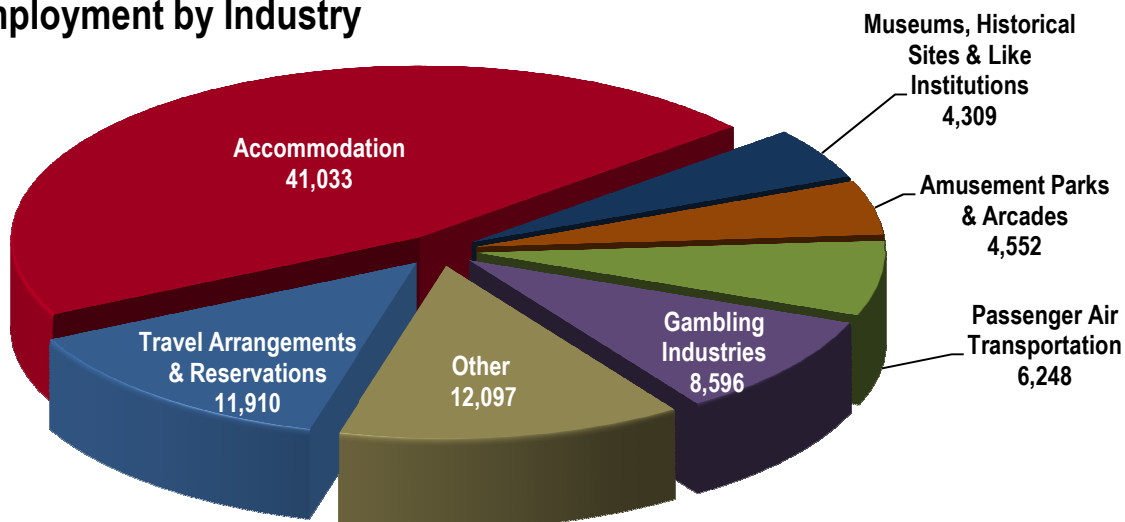
**\$3,075 Million**  
1.4% of total

### Output

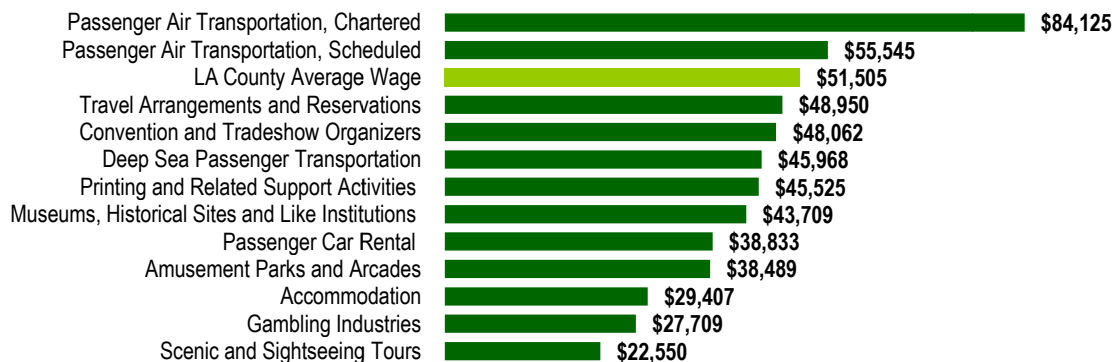


**\$15.7 Billion**  
1.6% of total

### Employment by Industry



### Average Annual Wages



Sources: CA EDD; Minnesota IMPLAN Group, Inc.; LAEDC



## Tourism and Hospitality

SELACO (2008)

### Establishments



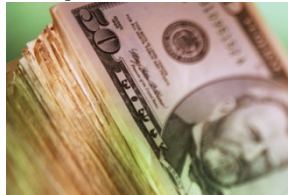
**67**  
0.5% of total

### Employment



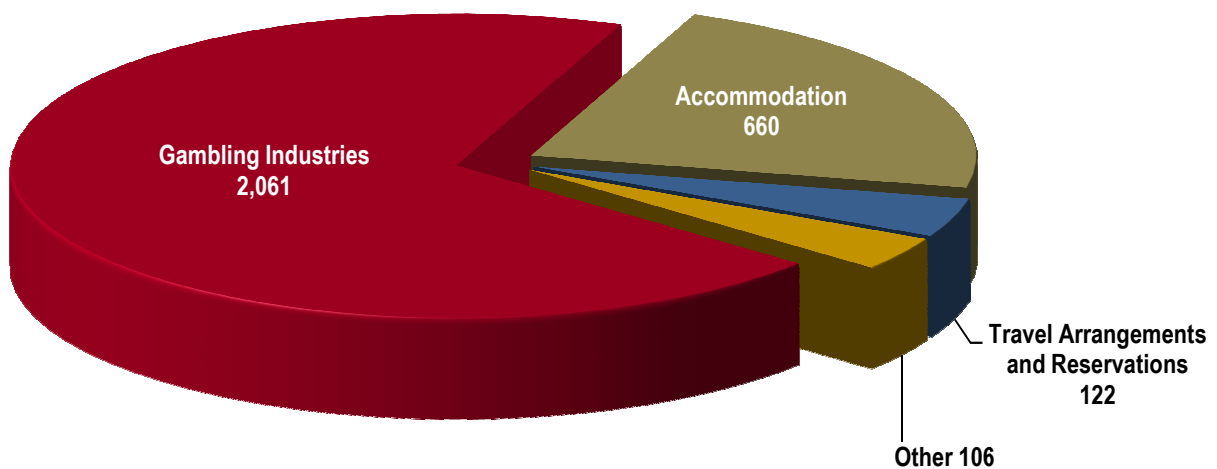
**2,949 Jobs**  
2.2% of total

### Output



**\$548 Million**  
1.9% of total

### Employment by Industry



Sources: CA EDD; Minnesota IMPLAN Group, Inc.; LAEDC



## Food Products

Los Angeles County (2008)

### Establishments



**1,800**  
0.4% of total

### Employment



**63,588 Jobs**  
1.5% of total

### Annual Payroll



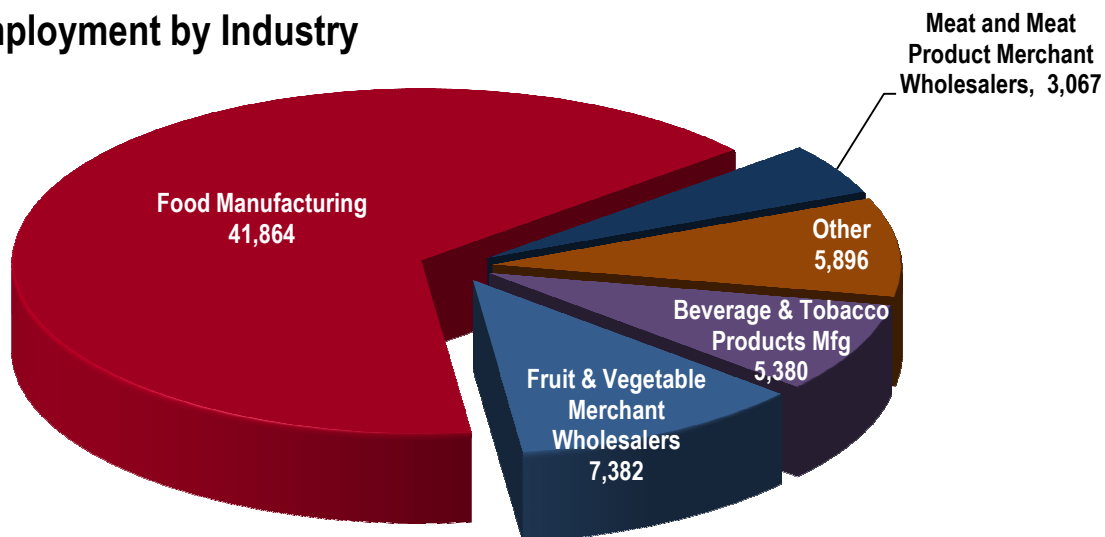
**\$2,806 Million**  
1.3% of total

### Output

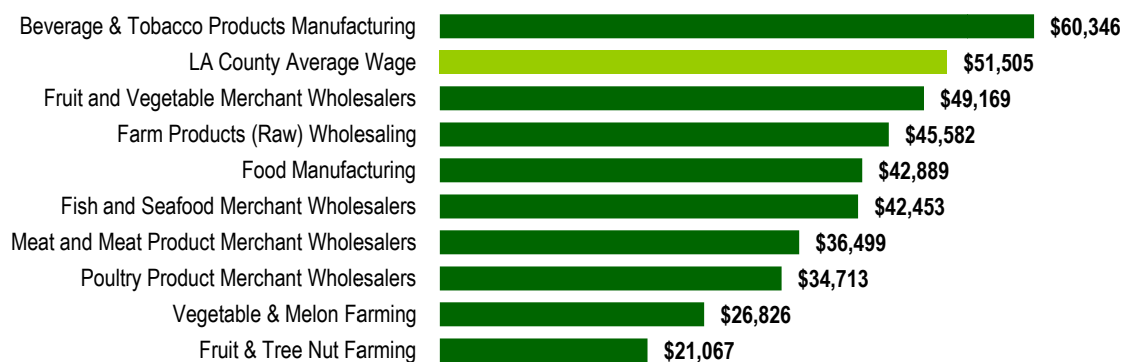


**\$27.2 Billion**  
2.9% of total

### Employment by Industry



### Average Annual Wages



Sources: CA EDD; Minnesota IMPLAN Group, Inc.; LAEDC

## Food Products

---

SELACO (2008)

### Establishments



**41**  
0.3% of total

### Employment



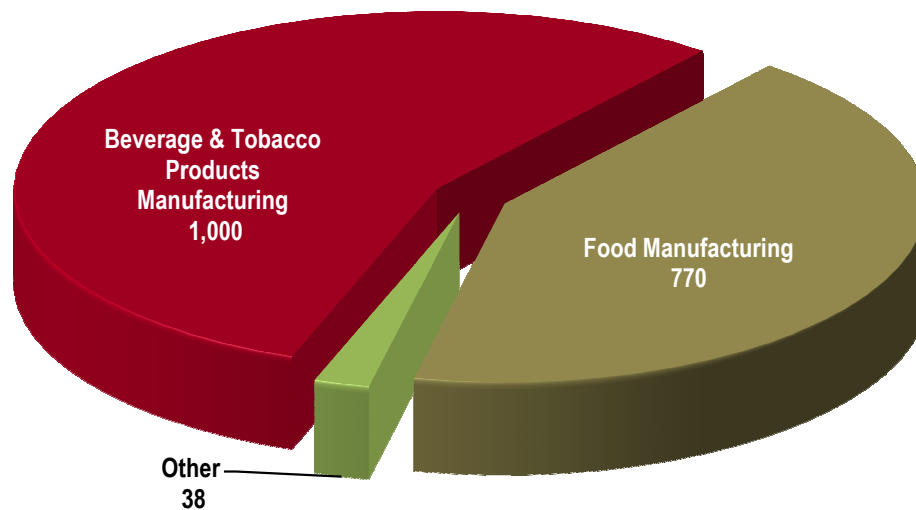
**1,808 Jobs**  
1.3% of total

### Output



**\$1,989 Million**  
6.8% of total

### Employment by Industry



Sources: CA EDD; Minnesota IMPLAN Group, Inc.; LAEDC

## Furniture and Home Furnishings

Los Angeles County (2008)

### Establishments



**1,715**  
0.4% of total

### Employment



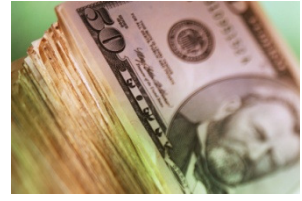
**35,711 Jobs**  
0.9% of total

### Annual Payroll



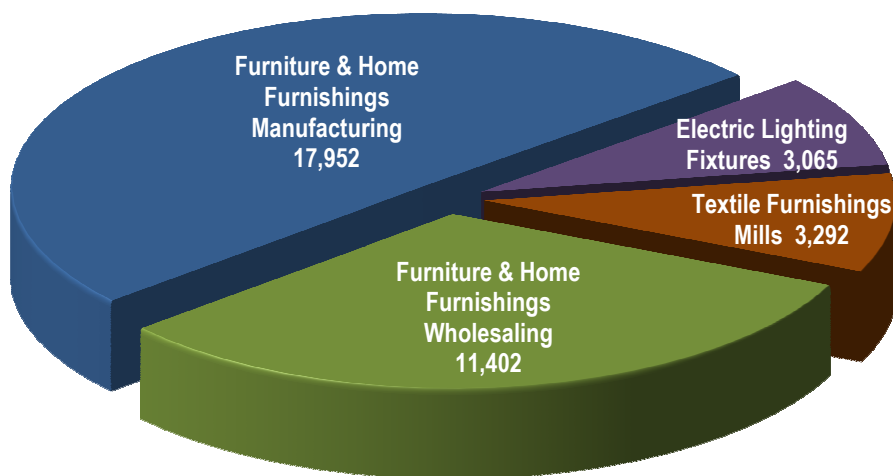
**\$1,441 Million**  
0.7% of total

### Output



**\$7.3 Billion**  
0.8% of total

### Employment by Industry



### Average Annual Wages



Sources: CA EDD; Minnesota IMPLAN Group, Inc.; LAEDC

## Furniture and Home Furnishings

SELACO (2008)

### Establishments



**43**  
0.3% of total

### Employment



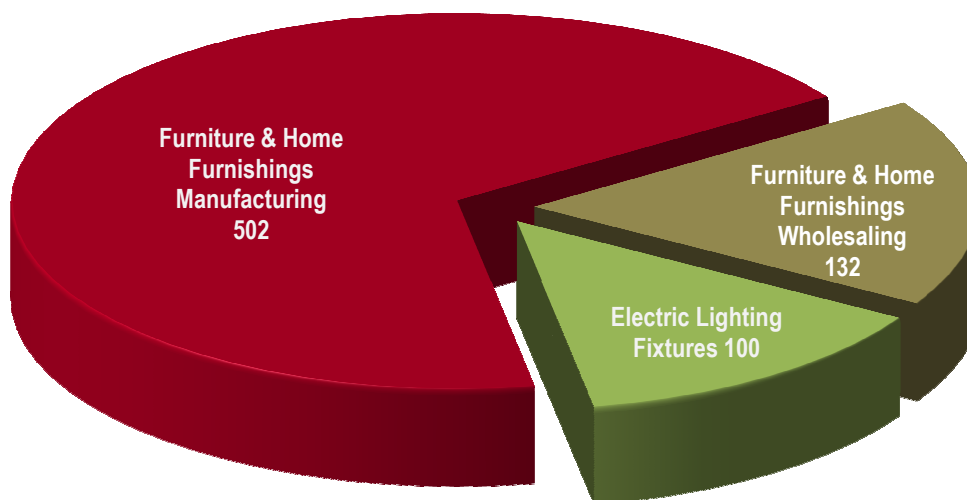
**734 Jobs**  
0.5% of total

### Output



**\$292 Million**  
1.0% of total

### Employment by Industry



Sources: CA EDD; Minnesota IMPLAN Group, Inc.; LAEDC

## Automotive Manufacturing and Wholesaling

Los Angeles County (2008)

### Establishments



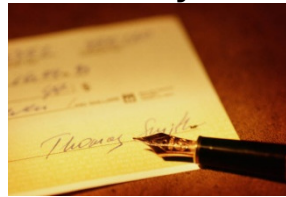
**1,109**  
0.3% of total

### Employment



**22,681 Jobs**  
0.5% of total

### Annual Payroll



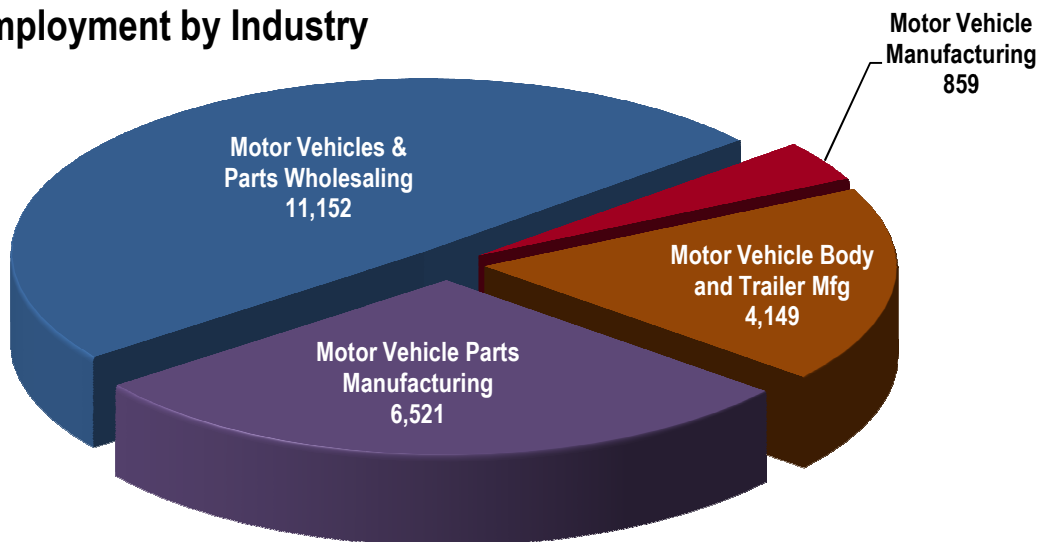
**\$1,314 Million**  
0.6% of total

### Output



**\$7.4 Billion**  
0.8% of total

### Employment by Industry



### Average Annual Wages



Sources: CA EDD; Minnesota IMPLAN Group, Inc.; LAEDC

## Automotive Manufacturing and Wholesaling

SELACO (2008)

### Establishments



**41**  
0.3% of total

### Employment



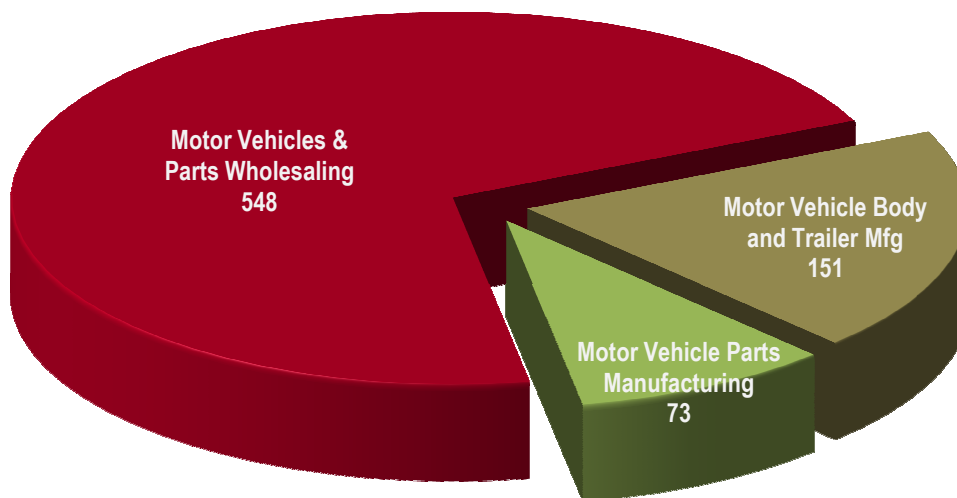
**772 Jobs**  
0.6% of total

### Output



**\$117 Million**  
0.4% of total

### Employment by Industry



Sources: CA EDD; Minnesota IMPLAN Group, Inc.; LAEDC

## Jewelry Manufacturing and Wholesaling

Los Angeles County (2008)

### Establishments



**1,070**  
0.3% of total

### Employment



**6,562 Jobs**  
0.2% of total

### Annual Payroll



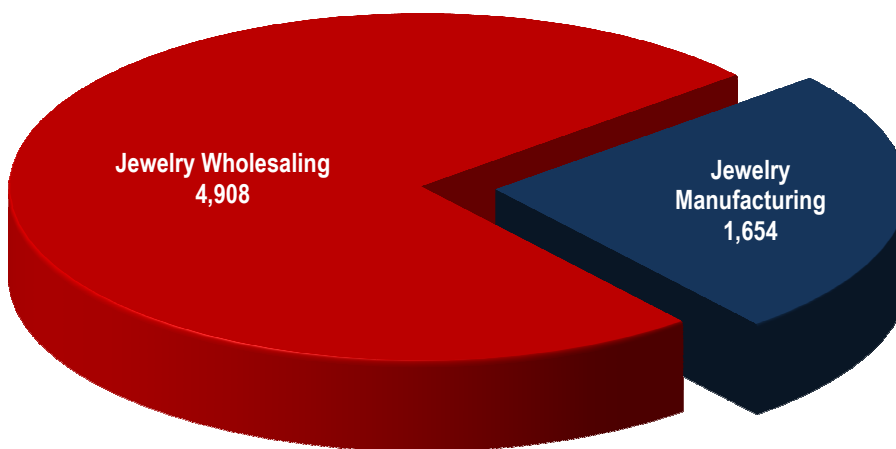
**\$281 Million**  
0.1% of total

### Output



**\$1.0 Billion**  
0.1% of total

### Employment by Industry



### Average Annual Wages



Sources: CA EDD; Minnesota IMPLAN Group, Inc.; LAEDC

## Jewelry Manufacturing and Wholesaling

SELACO (2008)

### Establishments



**7**

0.1% of total

### Employment



**42 Jobs**

0.0% of total

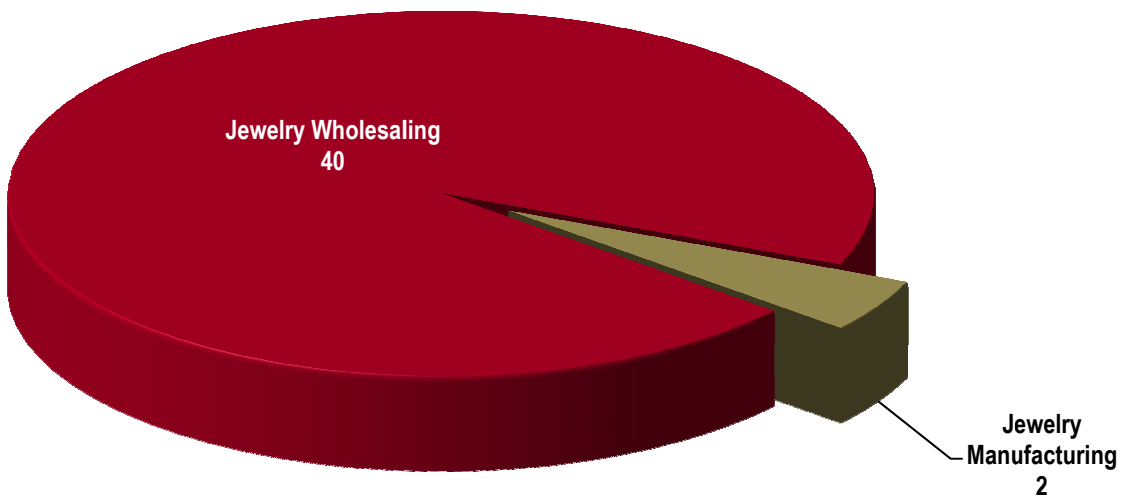
### Output



**\$34 Million**

0.1% of total

### Employment by Industry



Sources: CA EDD; Minnesota IMPLAN Group, Inc.; LAEDC



## Retail Trade

Los Angeles County (2008)

### Establishments



**27,295**  
6.5% of total

### Employment



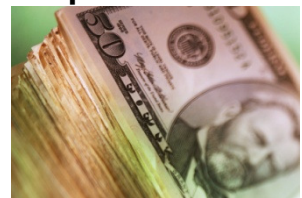
**418,294 Jobs**  
10.0% of total

### Annual Payroll



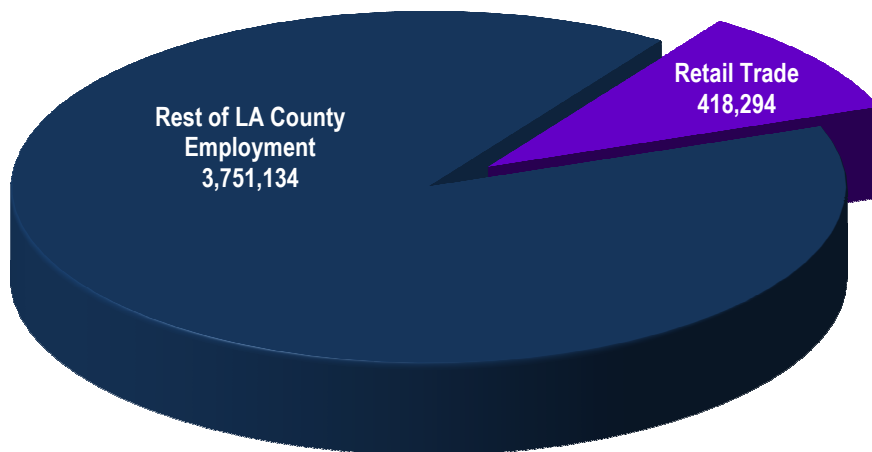
**\$12,795 Million**  
6.0% of total

### Output



**\$44.9 Billion**  
4.7% of total

### Employment by Industry



### Average Annual Wages

LA County Average Wage



\$51,505

Retail Trade

\$30,589

Sources: CA EDD; Minnesota IMPLAN Group, Inc.; LAEDC

## Retail Trade

---

SELACO (2008)

### Establishments



**1,168**  
9.4% of total

### Employment



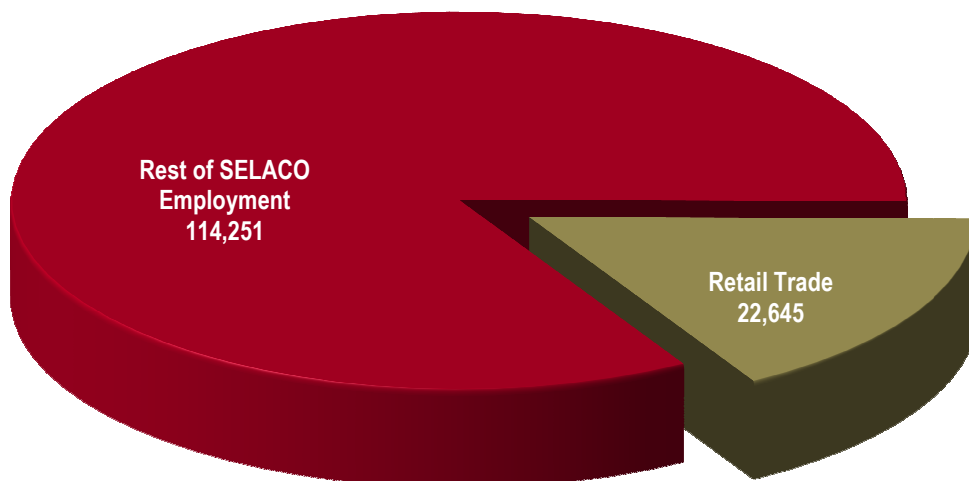
**22,645 Jobs**  
16.5% of total

### Output



**\$2,459 Million**  
8.4% of total

### Employment by Industry



Sources: CA EDD; Minnesota IMPLAN Group, Inc.; LAEDC

## Food Services and Drinking Places

Los Angeles County (2008)

### Establishments



**16,153**  
3.8% of total

### Employment



**287,049 Jobs**  
6.9% of total

### Annual Payroll



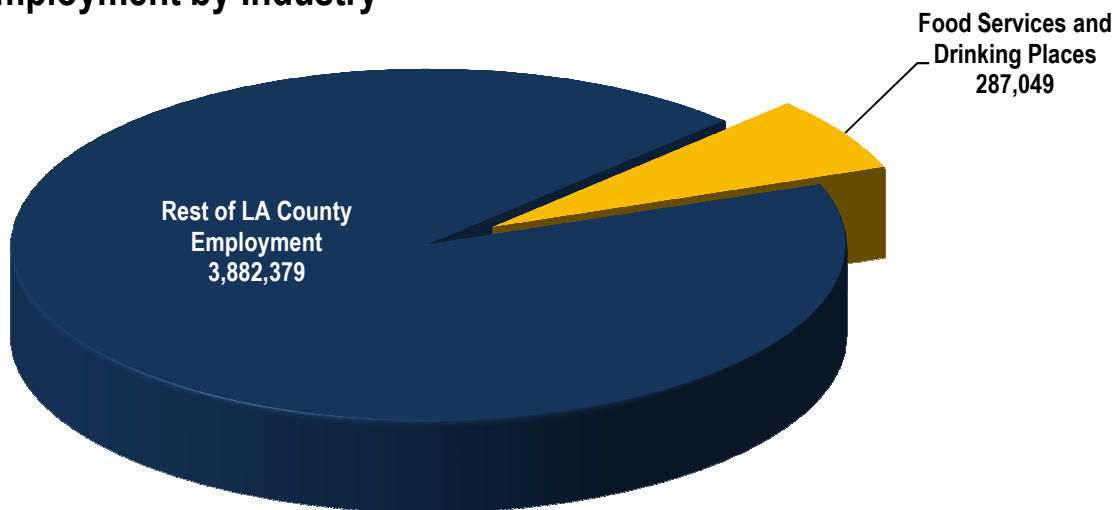
**\$5,166 Million**  
2.4% of total

### Output

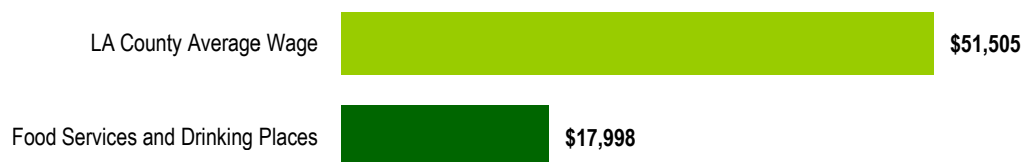


**\$20.6 Billion**  
2.2% of total

### Employment by Industry



### Average Annual Wages



Sources: CA EDD; Minnesota IMPLAN Group, Inc.; LAEDC

## Food Services and Drinking Places

SELACO (2008)

### Establishments



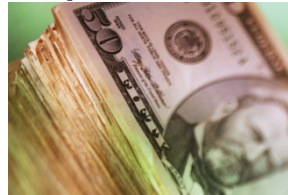
**736**  
5.9% of total

### Employment



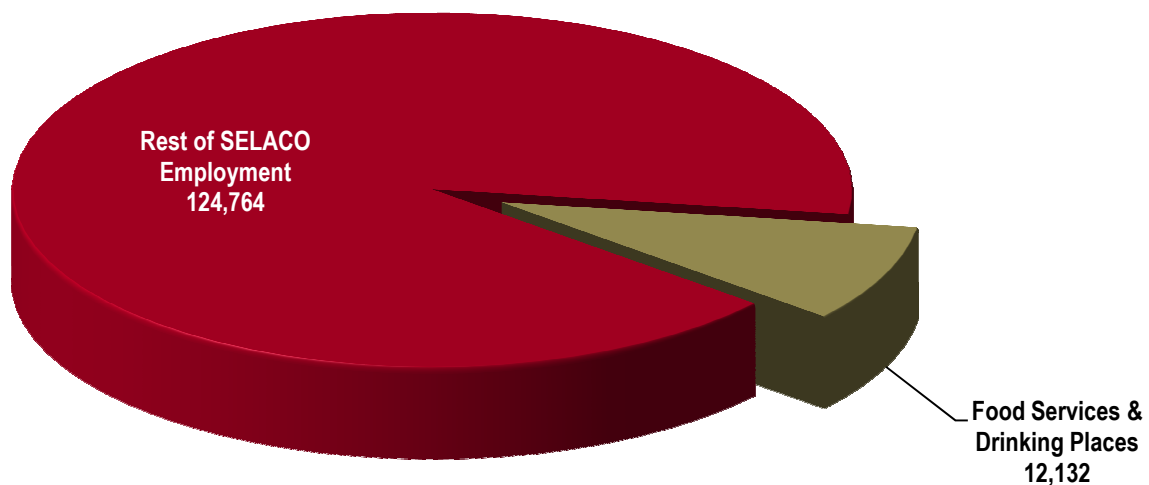
**12,132 Jobs**  
8.9% of total

### Output



**\$937 Million**  
3.2% of total

### Employment by Industry



Sources: CA EDD; Minnesota IMPLAN Group, Inc.; LAEDC

## Construction

Los Angeles County (2008)

### Establishments



**13,877**  
3.3% of total

### Employment



**145,660 Jobs**  
3.5% of total

### Annual Payroll



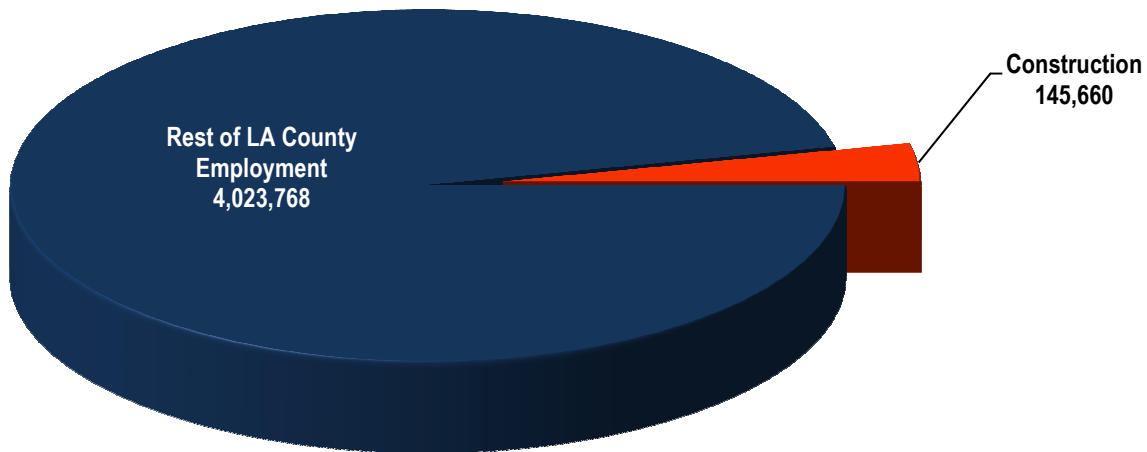
**\$7,739 Million**  
3.6% of total

### Output



**\$32.9 Billion**  
3.4% of total

### Employment by Industry



### Average Annual Wages



Sources: CA EDD; Minnesota IMPLAN Group, Inc.; LAEDC

## Construction

---

SELACO (2008)

### Establishments



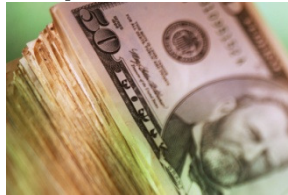
**494**  
4.0% of total

### Employment



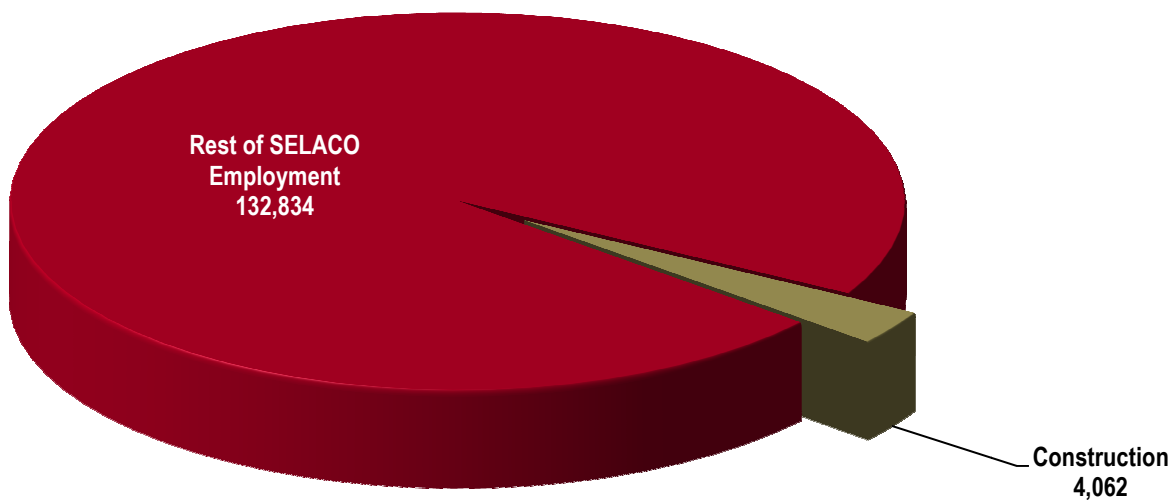
**4,062 Jobs**  
3.0% of total

### Output



**\$1,250 Million**  
4.3% of total

### Employment by Industry



Sources: CA EDD; Minnesota IMPLAN Group, Inc.; LAEDC

## Real Estate

Los Angeles County (2008)

### Establishments



**10,217**  
2.4% of total

### Employment



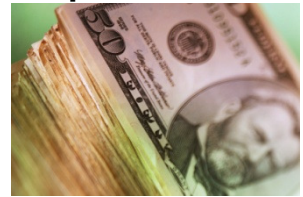
**54,194 Jobs**  
1.3% of total

### Annual Payroll



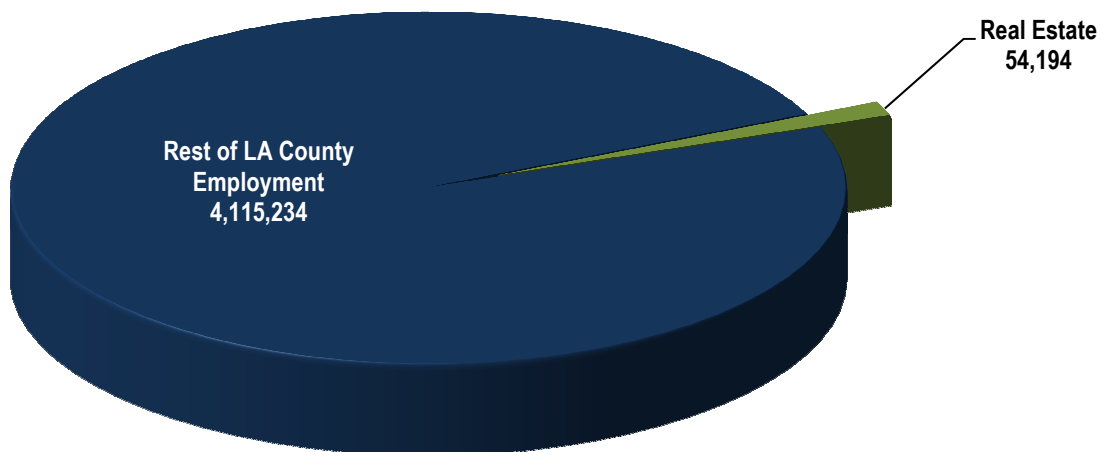
**\$3,001 Million**  
1.4% of total

### Output



**\$52.1 Billion**  
5.5% of total

### Employment by Industry



### Average Annual Wages



Sources: CA EDD; Minnesota IMPLAN Group, Inc.; LAEDC

## Real Estate

---

SELACO (2008)

### Establishments



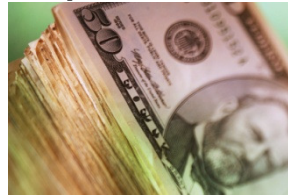
**369**  
3.0% of total

### Employment



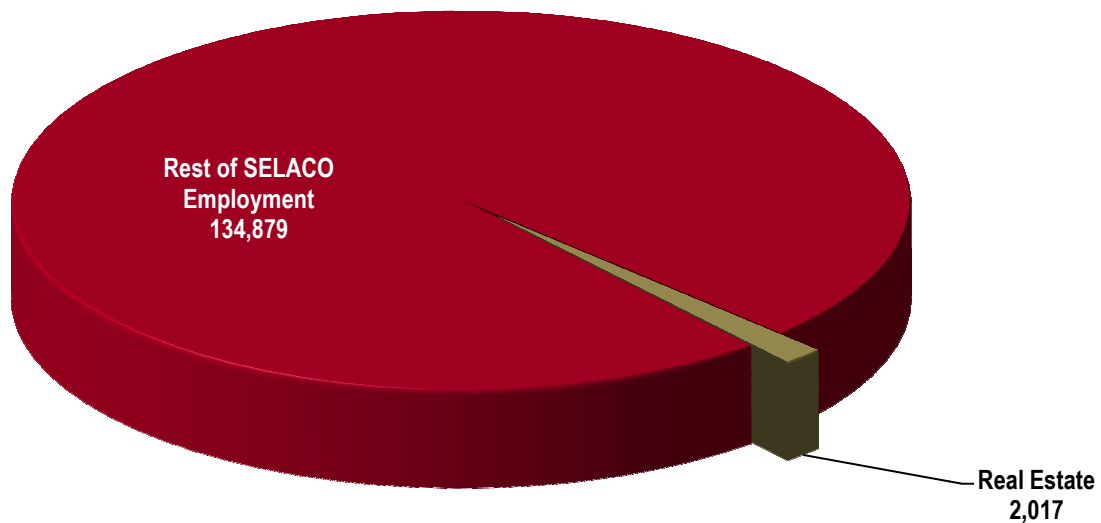
**2,017 Jobs**  
1.5% of total

### Output



**\$1,673 Million**  
5.7% of total

### Employment by Industry



Sources: CA EDD; Minnesota IMPLAN Group, Inc.; LAEDC



## Repair and Maintenance

Los Angeles County (2008)

### Establishments



**6,151**  
1.5% of total

### Employment



**40,936 Jobs**  
1.0% of total

### Annual Payroll



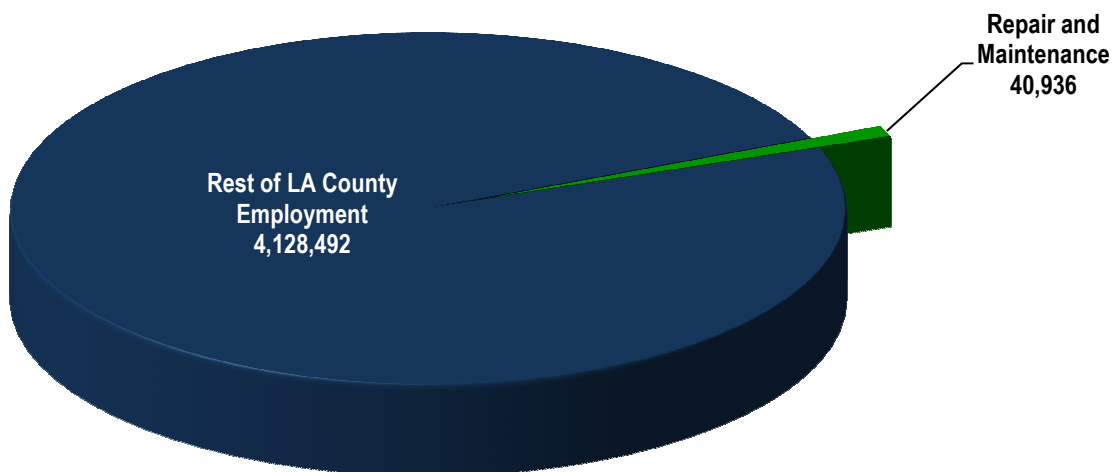
**\$1,351 Million**  
0.6% of total

### Output



**\$9.6 Billion**  
1.0% of total

### Employment by Industry



### Average Annual Wages



Sources: CA EDD; Minnesota IMPLAN Group, Inc.; LAEDC

## Repair and Maintenance

---

SELACO (2008)

### Establishments



**259**  
2.1% of total

### Employment



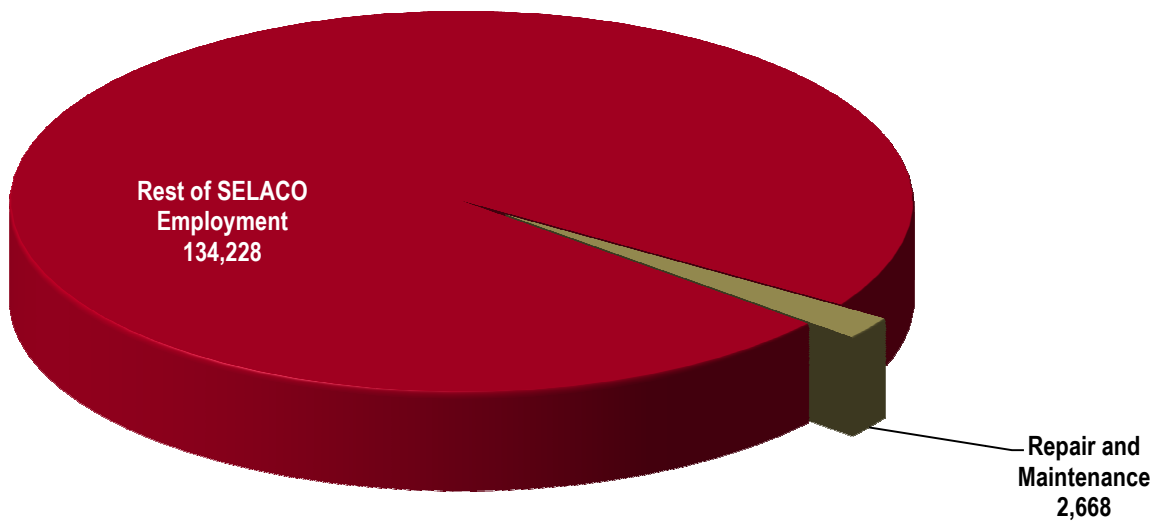
**2,668 Jobs**  
1.9% of total

### Output



**\$474 Million**  
1.6% of total

### Employment by Industry



Sources: CA EDD; Minnesota IMPLAN Group, Inc.; LAEDC

## Waste Management and Remediation Services

Los Angeles County (2008)

### Establishments



**350**  
0.1% of total

### Employment



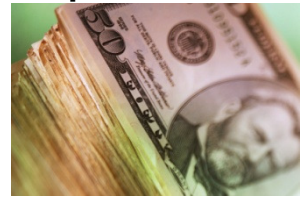
**9,013 Jobs**  
0.2% of total

### Annual Payroll



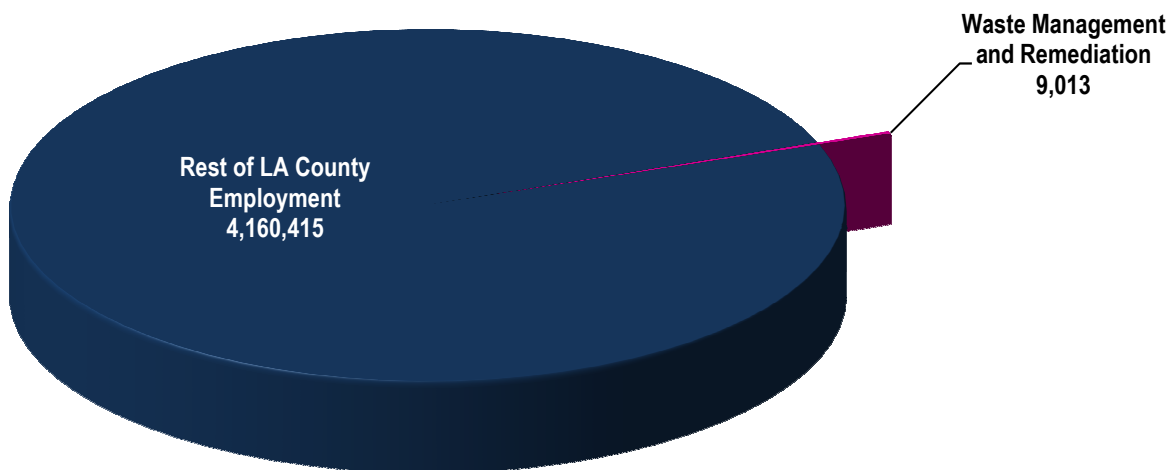
**\$467 Million**  
0.2% of total

### Output



**\$1.9 Billion**  
0.2% of total

### Employment by Industry



### Average Annual Wages

Waste Management and Remediation



**\$51,784**

LA County Average Wage



**\$51,505**

Sources: CA EDD; Minnesota IMPLAN Group, Inc.; LAEDC

## Waste Management and Remediation Services

SELACO (2008)

### Establishments



**6**  
0.0% of total

### Employment



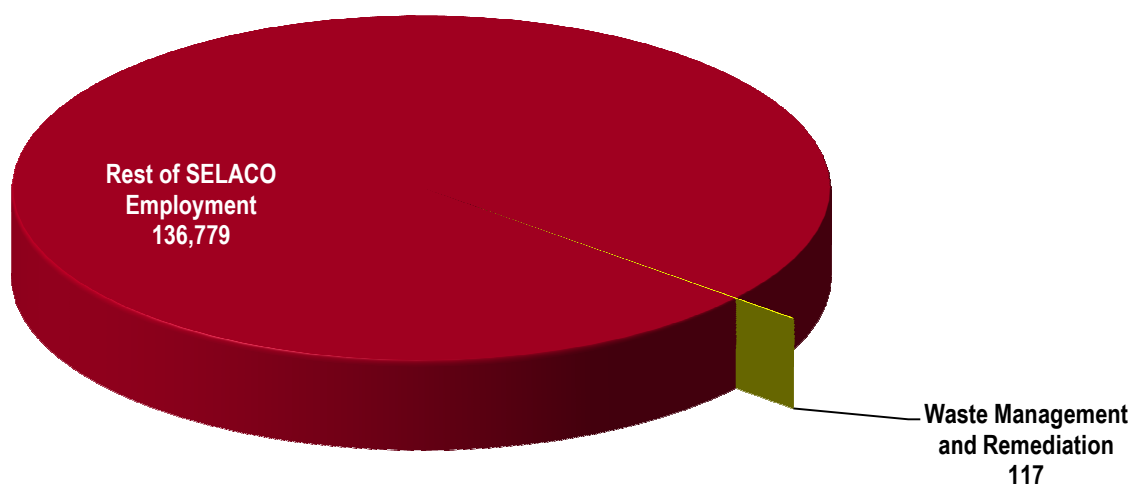
**117 Jobs**  
0.1% of total

### Output



**\$6 Million**  
0.0% of total

### Employment by Industry



Sources: CA EDD; Minnesota IMPLAN Group, Inc.; LAEDC

In this section, we present population and employment projections for Los Angeles County. We begin by reviewing overall demographic trends at the national, state and county levels, and then turn to employment forecasts at the sector level as well as by detailed industry. Using these projections, we present job creation potentials for the county and for SELACO, and discuss the presence of county industry employment in SELACO.

There are several sources of information on demographics and industry employment trends, including the California Department of Finance, Demographic Research Unit, the U.S. Bureau of Labor Statistics (BLS) and the California Employment Development Department's Labor Market Information Division (LMID). We also reviewed industry employment estimates obtained from Moody's Economy.com and incorporated these into our own forecast.

We begin with a review of the key demographic trends affecting growth of the working-age population. Then we look at the most recently published annual industry employment projections for Los Angeles County.

## Population and Demographic Trends

With an annual growth rate of 1.2 percent over the 2000 to 2020 period, the working-age population in California is projected to reach 28.6 million in 2020.<sup>1</sup> This growth rate has been slowing and is expected to continue falling, from an average annual rate of 1.6 percent during the period 2000 to 2010 to 0.8 percent during the period 2010 to 2020. See Exhibit 3-1 on the following page for these projections.

These rates are somewhat higher than those at the national level. The average annual growth rate in the national labor force was 0.9 percent from 2000 to 2005 and is projected to be 0.6 percent from 2005 to 2050.<sup>2</sup> The higher trend rates in California are partly due to the larger

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<sup>1</sup> The working-age population includes all persons aged 15 to 64 years.

<sup>2</sup> BLS *Monthly Labor Review* (11/06) "A new look at long-term labor force projections to 2050." The comparison is not precise as the California estimate includes the entire population within the age bracket, while the national estimates are based on labor force growth (the labor force includes only the civilian, non-institutional population aged 16 years and older). Still, the two growth rates are approximately comparable. We compare labor force growth rates directly on the following page.

population share of Hispanics, who tend to have higher population growth rates than other racial or ethnic groups.<sup>3,4</sup>

Exhibit 3-1 Population Projections (2000 to 2020)			
	2000	2010	2020
<b>Total Population:</b>			
California	34,105,437	39,135,676	44,135,923
Los Angeles County	9,578,960	10,514,563	11,214,237
<b>Working-Age Population:</b>			
California	22,646,869	26,524,408	28,629,786
Los Angeles County	6,354,252	7,152,752	7,382,475

Source: California Department of Finance, Demographic Research Unit  
Working-age population = all persons aged 15 to 64 years

Nevertheless, the pattern of a slowdown in the growth of working-age population or labor force holds at both the national and state levels. This pattern reflects the large-scale demographic shift underway as the baby-boom generation, born between 1946 and 1964, ascends the age ladder and exits the workforce.

Exhibit 3-2 Population Projections (2000 to 2020) Average Annual Growth Rates (%)		
	2000-10	2010-20
<b>Total Population:</b>		
California	1.4	1.2
Los Angeles County	0.9	0.7
<b>Working-Age Population:</b>		
California	1.6	0.8
Los Angeles County	1.2	0.3

Source: California Department of Finance, Demographic Research Unit  
Working-age population = all persons aged 15 to 64 years

In Los Angeles County, the estimated population growth rate is projected to be less than the state average, averaging 1.2 percent annually during 2000-2010 and 0.3 percent during 2010-

<sup>3</sup> According to the BLS, the share of Hispanics in the US labor force was 13.7 percent in 2006. In California, 28.8 percent of the working-age population in 2000 was Hispanic, and is projected to be 33.7 percent in 2010 and 38.4 percent in 2020 (California Department of Finance Demographic Research Unit 2007).

<sup>4</sup> In California, the average annual population growth rate for Hispanics is projected to be 2.8 percent from 2000 to 2010 and 2.3 percent from 2010 to 2020. This is almost double the projected total population growth rates of 1.4 percent and 1.2 percent, respectively.

2020. By 2020, the working-age population in Los Angeles County is projected to reach 7.4 million.

Much of the difference in the county-level trends compared to national and statewide trends can be understood by considering migration patterns and examining population compositions. At the state level, the population aged 30 to 39 years is expected to decline during the 2000 to 2010 period, as workers migrated out-of-state in search of better jobs following the bursting of the dot-com bubble. In Los Angeles County, two age groups are expected to shrink over the same period due to out-migration into neighboring counties; one group includes persons aged 25 to 39 years and the other those aged 0 to 9 years. This is evidently a response of young families seeking the affordable housing that Los Angeles County lacks. The loss of these now-young workers and their children can be traced in the demographic projections for Los Angeles County past 2020, when the children reach working age. The loss of both parents and children from the current working-age population results in Los Angeles County experiencing a fall in its working-age population past 2020.

### ***Working-Age Population versus Labor Force***

Not everyone in the working-age population will be labor force participants. The discussion above has reviewed the demographics of California and Los Angeles County, but employment and employment growth are based on labor force growth, which is a consequence of both changes in population and in labor force participation rates.<sup>5</sup>

The overall participation rate in the United States is projected to decline from 66.0 percent in 2008 to 64.5 percent in 2018 and to 60.4 in 2050.<sup>6</sup> The overall decline expected in the participation rate is due to a decline in the women's participation rate (falling since the peak in 1999) and in the participation rate of men, which has been declining since 1990.

Participation rates differ also by age, racial and ethnic composition. For example, the participation rates of older workers (aged 55 and over), while lower than average, has been rising since 1980. The Bureau of Labor Statistics (BLS) mentions several factors behind this increase, but the most important is the sheer numbers of the baby-boom generation reaching this age group. It is also worth noting that the participation rates of younger workers, especially men aged 16-19 years, have been declining since 1990 and should continue to decline as school enrollment rates improve.

The share of older workers in the labor force is expected to continue increasing as future boomers remain longer in the labor force. Consequently, the share of prime-aged workers (24-54) will decrease until 2020, as boomers retire and leave the labor force. The BLS notes that these two groups (older and younger workers) hold the most potential to increase labor

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<sup>5</sup> The labor force participation rate of a group is the percent of group members who are either working or unemployed and seeking a new job.

<sup>6</sup> BLS *Monthly Labor Review* (11/06), *ibid.*, and *Monthly Labor Review* (11/09), "Labor force projections to 2018: older workers staying more active."

force participation rates; they may therefore hold the key to increased growth in the labor force in the future. Given the importance of labor force growth in long-term economic growth, projections of the participation rates of these groups (and in particular that of older workers) will have the largest impact on our projections for economic activity in the region in the future.

<b>Exhibit 3-3 Labor Force (1995-2005) Average Annual Growth Rates (%)</b>			
	<b>1995-2000</b>	<b>2000-2005</b>	<b>1995-2005</b>
United States	1.5	0.9	1.2
California	2.0	1.0	1.5
Los Angeles County	1.8	0.6	1.2

Source: California Department of Finance, Demographic Research Unit

In California, labor force growth was 2.0 percent between 1995 and 2000, slowing to 1.0 percent from 2000 to 2005. These rates were slightly higher than the national rates of 1.5 percent and 0.9 percent. In Los Angeles County, the average annual growth rate in the labor force was 1.8 percent from 1995 to 2000, falling to 0.6 percent from 2000 to 2005.

From the trends discussed above, we anticipate a general slowing in the growth of the labor force in Los Angeles County until 2020, coincident with the underlying demographic shift. Thereafter, the pace of growth will increase slowly.



## Projections of Industry Employment

The financial crises of 2008 have upended earlier forecasts of employment growth. With the national and state economy in a deep recession, employment in consumer-related markets, as well as residential construction, financial services and durable goods manufacturing, will continue to decline through mid-2010. Tighter credit negatively impacts both consumer and business spending, and both goods-producing and service-providing sectors. Weak housing demand will limit new housing starts, and falling employment will dampen demand for commercial space. Employment conditions are not expected to improve until mid-2010, as additional fiscal stimulus accompanied by easing credit conditions begins to take effect.

### *California versus the Nation*

Long-term industry employment projections reflect the historical shift in the United States from goods-producing sectors to service-providing sectors.<sup>7</sup> Slower growth in productivity and slower labor force growth will contribute to declines in overall growth of employment and output. At the national level, the BLS estimates that employment will grow at an average 1.0 percent annual rate over the 2008 to 2018 decade, compared to the 0.7 percent average rate of the previous decade.<sup>8</sup>

Nearly all employment growth will occur in the service-providing sectors, particularly health care and social assistance, educational services, and professional and business services. Growth in health care and social assistance is driven largely by expected demographic changes and advances in medical technology. Much of the employment growth in professional and business services will be in management, scientific and technical consulting services due to continued demand for advice on the implementation of new technologies and compliance with tax and environment regulations, as well as firms' increased outsourcing of "non-core" activities.

At the national level, construction is the only goods-producing industry projected to have positive employment growth from 2008 to 2018. Manufacturing employment will fall by 0.9 percent annually, with 69 of the 84 manufacturing industries expected to see employment declines over the decade. The manufacturing industry subsectors with the biggest projected employment declines are computer and electronic product manufacturing; transportation equipment manufacturing; and fabricated metal product manufacturing. The industry subsectors showing actual employment gains over the decade are medical equipment and supplies manufacturing; furniture manufacturing; and nonmetallic minerals manufacturing.

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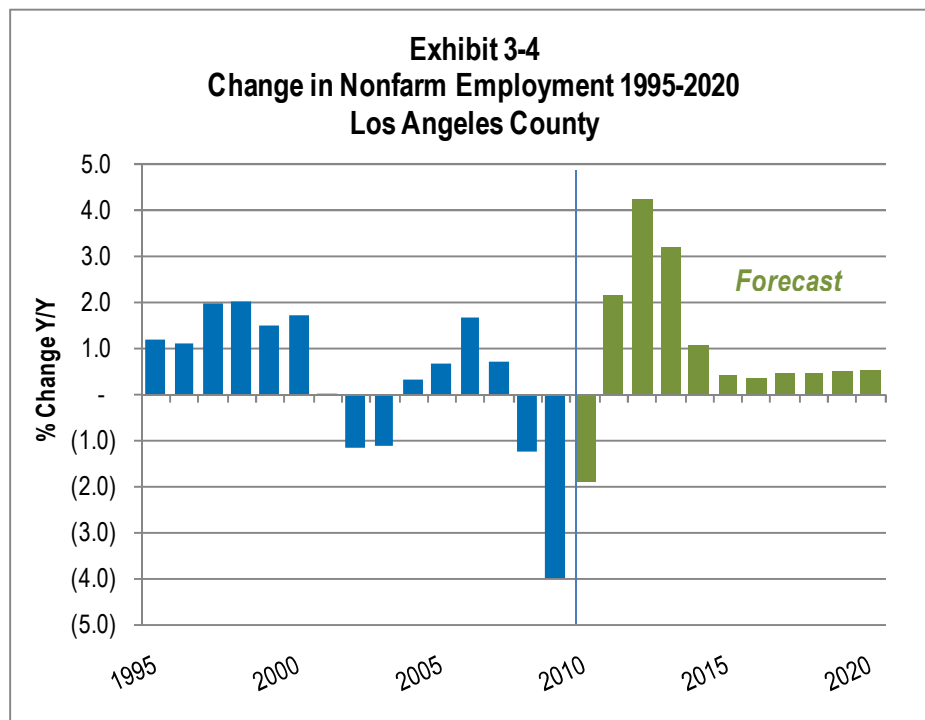
<sup>7</sup> The share of employment in service-providing sectors grew from 72.8 percent in 1998 to 77.2 percent in 2008 and is projected to reach 78.8 percent in 2018. The goods-producing sector share was 17.3 percent in 1998, 14.2 percent in 2008 and is projected to be 12.9 percent in 2018. The share of agriculture, forestry, fishing and hunting declined from 1.8 percent in 1998 to 1.4 percent in 2008 and is projected to fall to 1.2 percent in 2018.

<sup>8</sup> BLS *Monthly Labor Review* (11/09), "Industry output and employment projections to 2018."

### Los Angeles County Forecast by Sector

The general contour of our nonfarm employment forecast for Los Angeles County is shown in Exhibit 3-4, along with the county's historical growth performance since 1995. Some general comments about the forecast follow.

- During 2002 and 2003, Los Angeles County experienced a recession that was noticeable but less severe than the steep downturn of the early 1990s. Employment in the county's nonfarm industries declined by 1.1 percent in both 2002 and 2003.
- The county's economy entered a severe recession in 2008, with employment declines of 1.2 percent in 2008 and an estimated 4.0 percent decline in 2009. Employment is expected to continue to decline through 2010, with a year-over-year forecast loss of 1.9 percent.
- Employment is forecast to recover in 2011 with a growth rate of 2.1 percent, and rebound in 2012 with 4.2 percent growth, followed by 3.2 percent improvement in 2013.
- After 2013, economic growth is forecast to continue positive but to decelerate from the rapid pace of the post-recession recovery period. This pattern is characteristic of mature economic expansion periods in typical economic cycles.
- Over the longer term, the economy in Los Angeles County is forecast to grow at its trend rate of approximately 0.5 percent.



Sources: California Employment Development Department; Moody's Economy.com; LAEDC

Most industries will follow this general contour. However, there are differences among industries that reflect their individual circumstances. Exhibit 3-5 summarizes the industry forecast by sector over 5-year periods. Broadly, Los Angeles County's economic growth over the forecast period will be led by service-providing industries, which are expected to grow at an average annual rate of 1.6 percent between 2010 and 2020. Employment in the goods-producing industries will improve marginally due in large part to the post-recession recovery period but will continue to shrink thereafter, thus registering 0.7 percent per year growth on average from 2010 to 2020.

<b>Exhibit 3-5</b> <b>Employment Growth by Sector: History and Forecast</b> <b>Los Angeles County</b>						
Industry Sector	Annual Average Percent Change					
	1995-00	2000-05	2005-10	2010-15	2015-20	2010-20
Total Nonfarm Payroll	1.7	-0.2	-1.0	2.2	0.5	1.3
Goods Producing Industries	-3.5	-1.6	0.2	2.0	-0.6	0.7
Natural Resources and Mining	-4.0	1.9	3.6	0.4	-1.7	-0.7
Construction	3.1	2.5	-5.0	2.5	-0.3	1.1
Manufacturing - Durable Goods	-0.2	-5.1	-4.5	2.9	-0.2	1.3
Manufacturing - Nondurable Goods	-0.8	-5.1	-3.8	0.4	-1.5	-0.5
Service Providing Industries	-0.3	1.0	1.7	2.5	0.6	1.6
Wholesale Trade	1.3	0.0	-0.3	2.2	0.1	1.1
Retail Trade	1.6	1.1	-1.1	1.4	-0.1	0.7
Transportation, Warehousing, Utilities	2.4	-1.5	-1.7	1.0	-0.8	0.1
Information	5.0	-3.2	-1.6	1.0	0.6	0.8
Financial Activities	0.1	1.7	-1.9	2.3	0.5	1.4
Professional and Business Services	2.6	-0.4	-1.3	3.5	1.0	2.3
Educational and Health Services	2.3	2.5	1.9	3.3	1.2	2.3
Leisure and Hospitality	2.2	1.8	0.3	2.9	1.1	2.0
Other Services	1.3	0.6	-0.9	1.6	-0.2	0.7
Government	1.6	0.1	0.1	0.9	0.5	0.7

Sources: California Employment Development Department; Moody's Economy.com; LAEDC

Looking first at the major goods-producing industry sectors,

- Employment growth in *natural resources and mining* industries is expected to be negative after moderate growth during the recovery period. Continued consumer preference shifts will reduce the longer term demand for oil, yielding an overall annual average growth decline of 0.7 percent from 2010 through 2020.
- *Construction* industry employment experience severe declines through 2009 and will continue to decline overall in 2010, but is forecast to see robust growth during the recovery period through 2013. Thereafter, growth will fall to a near-zero trend rate. Overall growth in Los Angeles County is forecast to be 1.1 percent through 2020.

- *Manufacturing* employment will continue its long-term decline in Los Angeles County, showing only marginal average annual growth of 0.5 percent between 2010 and 2020. *Durable goods manufacturing* will see moderate to strong growth during the recovery period by employment declines thereafter. Non-durable goods manufacturing will not see much growth beyond a small recovery in 2012 and 2013. Mostly, the continued existence of low-cost competition from lower income countries in Asia and Latin America will drive this loss of employment. This is especially true in the *apparel, paper, textiles, and plastics industries*. Moderate employment growth may occur in other manufacturing industries during the initial recovery years of 2011-2013 but the negative long-term factors will dominate in the years thereafter.

Turning next to the region's trade, transportation and utilities industries,

- *Wholesale trade* employment is forecast to remain flat in Los Angeles County. Although the ports of Los Angeles and Long Beach are significant ports of access to the U.S. marketplace, especially for imports from Asia, consumer demand is forecast to remain unimpressive. An increasing amount of wholesale activity will be carried out in electronic marketplaces, where employment growth will be robust, reaching 3.9 percent per year on average from 2010 through 2020. As a result of these forces, overall employment in the wholesale trade sector is forecast to grow by 1.1 percent per year on average between 2010 and 2020.
- *Retail trade* activity in Los Angeles will be similarly anemic through the forecast period. Growth during the recovery period will reach 1.4 percent per year on average, but overall sector employment is forecast to grow by less than 1.0 percent per year on average between 2010 and 2020.
- The *transportation, warehousing and utilities sector* will experience little to no employment growth over the forecast period, registering only 0.1 percent per year on average from 2010 through 2020. Following declines of 1.0 percent and 4.0 percent in 2008 and 2009, employment in the transportation and warehousing industries is forecast to recoup during the recovery period but fall to a long-term trend of no growth by 2020.

In other service-providing sectors,

- Employment in the *information* sector is forecast to continue to grow modestly overall. Several industries in this sector will be impacted by changing technology. In particular, employment declines are expected in the traditional *publishing* industries as demand for print products declines in favor of electronic forms of information. More importantly for Los Angeles, the *motion picture* industry and *sound recording* activities are expected to grow though more slowly than in the past. Los Angeles is a high-cost location for filming, and the industry will face challenges from new ways of distributing content. Overall, employment in the information sector is forecast to increase by 0.8 percent per year on average between 2010 and 2020.

- The *financial activities* sector contains the finance, insurance, real estate and leasing industries. After severe declines in employment of 4.3 percent in 2008 and 4.6 percent in 2009, financial activities are expected to grow at a moderate pace of 1.4 percent per year on average between 2010 and 2020. Note, however, that these are cyclical industries and employment will decline during future economic downturns.
- The *professional and business services* sector contains professional, scientific and technical services, company management (headquarters locations), and administrative, support and waste services industries. Most of the firms in this sector provide services to other businesses in Los Angeles County. Already large, the region's business base will continue to grow. Further, the service firms in this sector are beneficiaries of the trend by businesses to outsource activities formerly provided in-house. Although management activities are forecast to remain flat over the period, *professional, scientific and technical services* are forecast to grow relatively well at an average annual rate of 1.6 percent. This sector includes the region's talented architectural, design and engineering firms. Overall employment in the professional and business services sector is forecast to increase by 2.3 percent per year on average between 2010 and 2020, assisted by robust growth of almost 4.7 percent in the *administrative, support and waste management industry* during the post-recession recovery period.
- Industries in the *education and health services* sector are expected to grow at a healthy pace. Private *education* is growing strongly in Los Angeles, led by the region's top-quality universities. In addition, there will be substantial growth in the number of privately-owned technical and industry-specific occupational training institutions. With regard to *health care and social assistance*, the continued growth in Los Angeles' population, especially its senior population, means local demands for health care will increase substantially. Most hospitals will be constrained by budget problems, but other providers will gain as more diagnosis and testing activity takes place outside the hospital setting. Employment in the private educational and health services sector will grow by 2.3 percent per year on average between 2010 and 2020.
- The *leisure and hospitality* sector will show better-than-average growth over the forecast period. The county's arts, entertainment and recreation facilities will gain in number and in quality, attracting a wider audience. Together with LA's theme parks and natural attractions (beaches, mountains, etc.), the region will continue to draw visitors from around the world. Continued development of the area around the convention center and the continuing remake of other tourist areas (Hollywood, Pasadena, Santa Monica, etc.) will boost this industry even more. Overall employment in the leisure and hospitality sector is forecast to increase by 2.0 percent per year on average between 2010 and 2020.

Finally, *government* employment is forecast to grow at 0.7 percent per year on average between 2010 and 2020, led for the most part by state and local governments, which must deliver the most public services to the county's growing population.

### Detailed Industry Forecast for Los Angeles County

Exhibit 3-6, presented below and on the following pages, contains the specific industry details that lie behind the sector forecasts presented in Exhibit 3-5. For the most part, industries are selected at the three-digit level NAICS codes. This provides enough specific industry information to be useful without getting lost in the details. In total, we identified and prepared employment forecasts for 62 industries.

Industries in Exhibit 3-6 are ranked by expected employment growth over the next ten years. They are sorted into three groups according to their forecast growth rates.

- Group One contains the higher growth industries. Employment in these industries is forecast to grow at a rate at least as great as the average of all non-farm employment over the ten year period, which is forecast to be 1.3 percent per year on average.
- Group Two contains the moderate growth industries, with growth less than overall nonfarm employment but still positive growth over the forecast period.
- Employment in the remaining industries of Group Three is forecast to be negative over the forecast period. Many of the industries in this group are manufacturing industries.

Exhibit 3-6 Employment Growth by Industry: History and Forecast Los Angeles County								
Rank	NAICS Industry Sector	NAICS	Annual Average Percent Change					
			1995-00	2000-05	2005-10	2010-15	2015-20	2010-20
Group One: Higher growth industries								
1	Wholesale Electronic Markets	425	-4.1	10.8	-0.2	5.3	2.5	3.9
2	Administrative, Support, Waste Mgmt	56	4.0	-1.3	-2.1	4.7	1.8	3.2
3	Manufacturing: Machinery	333	1.7	-7.4	-3.9	7.3	-1.5	2.8
4	Information Services	519	26.9	-14.4	5.9	3.1	2.3	2.7
5	Health Care and Social Assistance	62	1.7	2.5	1.6	3.5	1.4	2.4
6	Manufacturing: Furniture	337	4.0	-5.1	-10.7	4.7	-0.1	2.3
7	Accommodation and Food Services	72	2.0	1.9	0.2	3.1	1.2	2.1
8	Manufacturing: Nonmetallic Minerals	327	-0.7	-6.5	-11.6	3.2	1.1	2.1
9	Manufacturing: Computer /Electronic Prods	334	-2.3	-3.0	-3.7	3.1	0.8	1.9
10	Professional, Scientific and Technical Svcs	541	1.7	2.0	0.3	2.8	0.5	1.6
11	Educational Services	611	4.8	2.5	2.9	2.6	0.6	1.6
12	Retail: General Merchandise Stores	452	-0.2	2.4	-0.7	2.4	0.7	1.5
13	Finance and Insurance	52	-0.5	2.0	-2.6	2.4	0.6	1.5
14	Retail: Health and Personal Care Stores	446	1.8	0.9	0.7	2.3	0.6	1.5
15	Manufacturing: Fabricated Metal Products	332	1.2	-4.7	-2.4	3.0	-0.1	1.5
16	Arts, Entertainment and Recreation	71	2.9	1.7	0.7	2.2	0.7	1.4
17	Retail: Clothing Stores	448	0.8	2.5	-0.3	2.3	0.6	1.4

Sources: California Employment Development Department; Moody's Economy.com; LAEDC

Exhibit 3-6 Continued Employment Growth by Industry: History and Forecast Los Angeles County								
Rank	NAICS Industry Sector	NAICS	Annual Average Percent Change					
			1995-00	2000-05	2005-10	2010-15	2015-20	2010-20
Group Two: Moderate growth industries								
18	Retail: Building Materials, Garden Equipment	444	2.9	2.7	-3.3	2.1	0.5	1.3
19	Specialty Trade Contractors	238	4.5	2.9	-5.5	2.7	-0.2	1.3
20	Manufacturing: Electrical Eqpmt, Appliances	335	-0.8	-4.7	-3.0	2.5	-0.1	1.2
21	Religious, Civic, Professional Organizations	813	0.7	0.4	0.4	2.2	0.2	1.2
22	Motion Picture and Sound Recording	512	3.6	-1.6	-1.4	1.4	0.9	1.2
23	Real Estate and Rental and Leasing	53	1.3	1.1	-0.4	2.1	0.2	1.1
24	Wholesalers: Nondurable Goods	424	2.3	0.9	1.1	2.2	-0.0	1.1
25	Heavy and Civil Engineering Construction	237	-0.9	-1.2	-1.9	2.5	-0.3	1.1
26	Manufacturing: Primary Metals	331	1.9	-5.5	-3.3	2.4	-0.6	0.9
27	Manufacturing: Miscellaneous	339	1.7	-6.5	-2.5	2.9	-1.1	0.9
28	Local Government	93	2.1	0.3	0.2	1.0	0.3	0.8
29	State Government	92	1.8	0.3	0.6	1.3	0.3	0.8
30	Personal and Laundry Services	812	2.4	0.9	-1.1	1.7	-0.2	0.8
31	Construction of Buildings	236	1.3	2.7	-4.8	2.1	-0.7	0.7
32	Manufacturing: Wood Products	321	3.6	-3.0	-10.0	0.8	0.5	0.7
33	Management of Companies	551	1.1	-4.6	-5.0	1.6	-0.3	0.6
34	Manufacturing: Printing and Related	323	-0.3	-4.8	-4.8	1.1	-0.2	0.5
35	Wholesalers: Durable Goods	423	1.5	-2.4	-1.4	1.4	-0.6	0.4
36	Retail: Electronics and Appliances	443	5.1	-2.3	-2.9	1.1	-0.4	0.3
37	Retail: Food and Beverages	445	0.7	2.1	0.7	1.0	-0.4	0.3
38	Broadcasting	515	5.5	-0.6	-1.9	0.4	0.1	0.2
39	Retail: Motor Vehicle and Parts Dealers	441	2.7	1.1	-3.0	0.9	-0.5	0.2
40	Transportation and Warehousing	48-49	3.1	-1.7	-1.9	1.1	-0.8	0.1
41	Retail: Furniture and Home Furnishings	442	5.2	1.6	-3.7	0.8	-0.6	0.1
42	Manufacturing: Food Products	311	0.7	-1.0	-1.5	1.0	-0.8	0.1
43	Retail: Sporting Gds, Hobbies, Books, Music	451	0.2	-1.6	-3.1	0.7	-0.6	0.0
44	Manufacturing: Beverage and Tobacco Prod	312	-2.9	-0.2	4.8	0.9	-0.8	0.0

Sources: California Employment Development Department; Moody's Economy.com; LAEDC

Exhibit 3-6 Continued Employment Growth by Industry: History and Forecast Los Angeles County								
Rank	NAICS Industry Sector	NAICS	Annual Average Percent Change					
			1995-00	2000-05	2005-10	2010-15	2015-20	2010-20
Group Three: Remaining industries								
45	Manufacturing: Leather and Allied Products	316	-2.2	-9.5	2.4	0.3	-0.4	-0.0
46	Retail: Nonstore Retailers	453	7.5	0.1	-2.1	0.6	-0.8	-0.1
47	Repair and Maintenance	811	0.8	0.6	-2.4	0.7	-1.0	-0.1
48	Internet Service Providers, Portals	518	22.2	-9.7	-2.1	-0.1	-0.3	-0.2
49	Utilities	22	-4.1	0.5	1.2	0.4	-0.9	-0.2
50	Retail: Gasoline Stations	447	-1.0	-1.7	1.1	0.4	-0.9	-0.3
51	Manufacturing: Transportation Equipment	336	-2.7	-6.0	-5.0	0.1	-0.9	-0.4
52	Manufacturing: Paper	322	-1.5	-4.9	-5.5	-0.5	-0.4	-0.5
53	Federal Government – Civilian	91	-1.8	-1.6	-1.6	-0.6	-0.4	-0.5
54	Logging	1133	-4.2	3.1	-71.5	0.2	-1.2	-0.5
55	Publishing Industries	511	1.9	-4.9	-3.7	-0.5	-0.7	-0.6
56	Manufacturing: Plastics and Rubber Prods	326	-2.2	-5.5	-5.6	1.3	-2.5	-0.6
57	Mining	21	-4.0	1.9	3.7	0.4	-1.7	-0.7
58	Telecommunications	517	4.7	-4.7	-3.3	-0.6	-0.7	-0.7
59	Manufacturing: Textile Mills	313	4.2	-5.2	-5.4	-0.1	-1.3	-0.7
60	Retail: Miscellaneous Stores	454	2.6	-1.9	-2.4	-0.3	-1.5	-0.9
61	Manufacturing: Chemical	325	1.0	-3.0	-3.3	0.7	-2.6	-1.0
62	Manufacturing: Textile Products Mills	314	-0.4	-7.5	-9.4	-0.9	-1.1	-1.0
63	Manufacturing: Apparel	315	-1.7	-7.8	-4.7	-0.3	-2.0	-1.2
64	Manufacturing: Petroleum Products	324	-6.1	-5.7	-2.8	0.2	-2.9	-1.4

Sources: California Employment Development Department; Moody's Economy.com; LAEDC



## Potential for Job Creation in Los Angeles County

Having determined which industries are likely to grow over the next ten years, we now turn to an examination of the industrial profile of Los Angeles County and employment forecasts. The purpose of looking at the industrial profile is to identify those industries which already have a presence in Los Angeles County, and their relative strength (measured by level of employment). Growth rates may indicate areas of potential employment, but if a *robust* rate of growth is expected in a *small* industry, the absolute number of jobs that may be added can be very small, while a *large* industry with a *slow* rate of growth may nevertheless add many jobs.

We begin by examining employment by industry sector, as shown in Exhibit 3-7.<sup>9</sup>

Exhibit 3-7 Industrial Profile Forecast Los Angeles County								
Industry Sector	2005		2010		2020		Ave Annual % Change	
	Employed (000)	% of total	Employed (000)	% of total	Employed (000)	% of total	2005-10	2010-20
Total Nonfarm Payroll	4,024.1		3,834.9		4,274		-1.0	1.3
Goods Producing Industries	626.2	15.6	501.9	13.1	553.0	12.9	0.2	0.7
Natural Resources and Mining	3.7	0.1	4.4	0.1	4.5	0.1	3.6	-0.7
Construction	148.7	3.7	115.0	3.0	130.3	3.0	-5.0	1.1
Manufacturing - Durable Goods	265.7	6.6	210.8	5.5	242.7	5.7	-1.0	1.3
Manufacturing - Nondurable Goods	208.1	5.2	171.7	4.5	175.5	4.1	0.8	-0.5
Service Providing Industries	2,814.2	69.9	2,746.0	71.6	3,106.7	72.7	1.7	1.6
Wholesale Trade	217.1	5.4	214.4	5.6	239.2	5.6	-0.3	1.1
Retail Trade	414.4	10.3	392.1	10.2	420.9	9.8	-1.1	0.7
Transportation, Warehousing, Utilities	161.2	4.0	148.8	3.9	156.4	3.7	-1.7	0.1
Information	207.5	5.2	191.1	5.0	200.6	4.7	-1.6	0.8
Financial Activities	244.0	6.1	222.1	5.8	248.6	5.8	-1.9	1.4
Professional and Business Services	576.1	14.3	539.6	14.1	641.0	15.0	-1.3	2.3
Educational and Health Services	471.3	11.7	516.8	13.5	608.2	14.2	1.9	2.3
Leisure and Hospitality	377.8	9.4	383.0	10.0	441.8	10.3	0.3	2.0
Other Services	144.3	3.6	138.1	3.6	149.9	3.5	-0.9	0.7
Government	583.7	14.5	587.1	15.3	614.4	14.4	0.1	0.7

Sources: California Employment Development Department; Moody's Economy.com; LAEDC

<sup>9</sup> The data on employment, establishments and average weekly wages used in this section are taken from the Quarterly Census of Employment and Wages conducted by the California Employment Development Department and the Bureau of Labor Statistics. These data do not include businesses without employees (such as self-proprietorships) or who hire family members as employees and therefore are likely to understate actual employment.

Overall, the county is expected to experience an average annual decline in non-farm employment of 1.0 percent between 2005 and 2010, reflecting the recession that began in 2008 which reversed the employment gains of 2005 through 2007.

Employment levels and industrial shares for three years are displayed: historical data for 2005 and forecast data for 2010 and 2020. Private sector employment accounted for 85.5 percent of total nonfarm employment in 2005 and is forecast to fall to 84.7 percent in 2010 but return to 85.6 percent by 2020.

The remaining employment shares (of each industry) are shown as percentages of *total non-farm employment*. For example, employment in goods-producing industries made up 15.6 percent of private sector employment in 2005. This share is on the decline and is forecasted to fall to 13.1 percent in 2010 and to 12.9 percent in 2020. The only growth in goods-producing sectors is expected to be seen in construction and in manufacturing of durable goods, which we noted earlier is due to a robust (but temporary) recovery from the steep recession.

This reflects the changing industrial structure of Los Angeles County, similar to the United States as a whole, towards a more service-oriented economy. Thus the flip side of the decline in the share of manufacturing employment is the increase in employment in service-providing industries, which employed 69.9 percent of non-farm employment in 2005 and is expected to rise to 71.6 percent in 2010 and 72.7 percent by 2020. The industry sectors which are responsible for this increasing share are Professional and Business Services, Education and Health Services, and Leisure and Hospitality.

Exhibit 3-8 shows the largest 30 industries in Los Angeles County in 2008, as measured by employment. Local Government tops the list with 470,510 employees in 2008, followed by the Health Care and Social Assistance industry with 396,520 employees in 2008 and the Accommodation and Food Services industry with 327,080 employees.

The forecasted employment levels for 2020 are also shown in the exhibit. In general, the largest ten or so industries maintain their relative ranks throughout this period, with only a few exceptions:

- The Health Care and Social Assistance industry will surpass Local Government by 2020 in terms of employment.
- Administrative and Support and Waste Services is expected to move up by 2020 to exceed Professional, Scientific and Technical Services in employment levels.
- Educational Services is expected to move up by 2020.

<b>Exhibit 3-8</b> <b>Top 30 Industries by Employment in 2008</b> <b>Los Angeles County</b>				
Rank	NAICS Industry Sector	NAICS	Employment	
			2008	2020 (forecast)
1	Local Government	93	470,510	496,430
2	Health Care and Social Assistance	62	396,520	514,240
3	Accommodation and Food Services	72	327,080	386,300
4	Professional, Scientific and Technical Services	541	270,460	299,860
5	Administrative, Support, Waste Mgmt	56	257,290	318,810
6	Finance and Insurance	52	156,250	168,850
7	Transportation and Warehousing	48-49	148,580	137,140
8	Motion Picture and Sound Recording Studios	512	131,920	134,580
9	Wholesalers: Durable Goods	423	105,800	102,480
10	Educational Services	611	105,140	131,310
11	Specialty Trade Contractors	238	95,570	84,830
12	Wholesalers: Nondurable Goods	424	91,960	99,180
13	Retail: Food and Beverage Stores	445	90,030	91,850
14	State Government	92	82,390	87,190
15	Real Estate, Rental and Leasing	53	79,270	85,500
16	Arts, Entertainment and Recreation	71	72,560	81,160
17	Retail: General Merchandise Stores	452	65,560	71,850
18	Management of Companies	551	56,560	55,670
19	Religious, Civic and Professional Orgs	813	56,500	63,190
20	Retail: Clothing Stores	448	55,840	59,200
21	Manufacturing: Apparel	315	55,250	43,260
22	Manufacturing: Computer and Electronic Prods	334	54,170	60,790
23	Federal Government (Civilian)	91	51,080	46,920
24	Manufacturing: Transportation Equipment	336	50,640	40,770
25	Manufacturing: Fabricated Metal Products	332	49,140	49,370
26	Personal and Laundry Services	812	48,980	48,050
27	Retail: Motor Vehicle and Parts Dealers	441	48,360	45,040
28	Manufacturing: Food	311	41,700	40,490
29	Repair and Maintenance	811	41,070	36,960
30	Construction of Buildings	236	35,690	30,040

Sources: California Employment Development Department; Moody's Economy.com; LAEDC

Average earnings among industries vary widely. Exhibit 3-9 shows the top 30 industries ranked by average weekly earnings.<sup>10</sup>

<sup>10</sup> The EDD cautions that the average weekly wage figures are affected by the percentage of part-time employees, the number of workers who worked for the full year and the number of highly-paid employees. Industries with high proportions of part-time workers will show average wage levels appreciably less than the pay levels of regular full-time employees in these industries. For example, in an industry such as retail, where a large proportion may be part time, full time employees in these industries will earn more than the average weekly wages shown. Nonetheless, it is helpful to compare relative wages in order to identify attractive industries to target.

The industry with the highest average weekly wage in 2008 was Mining, paying \$2,739 per week, followed by: Broadcasting (\$2,016 per week); Petroleum and Coal Products Manufacturing (\$1,955); Other Information Services (\$1,835); and Utilities (\$1,813). In more than twenty industries, the average weekly wage exceeded \$1,000. For comparison purposes, per capita income in Los Angeles County in 2006 according to the BEA was \$765 per week; average weekly wages in the top thirty industries in Los Angeles County are higher than this benchmark.<sup>11</sup>

<b>Exhibit 3-9 Top 30 Industries by Average Weekly Wage in 2008 Los Angeles County</b>			
<b>Rank</b>	<b>NAICS Industry Sector</b>	<b>NAICS</b>	<b>Average Weekly Wage</b>
1	Mining	21	\$ 2,739
2	Broadcasting	515	2,016
3	Manufacturing: Petroleum and Coal Prods	324	1,955
4	Other Information Services	519	1,835
5	Utilities	221	1,813
6	Finance and Insurance	52	1,806
7	Arts, Entertainment and Recreation	71	1,780
8	Management of Companies	551	1,732
9	Motion Picture and Sound Recording Industries	512	1,685
10	Manufacturing: Computer and Electronic Prods	334	1,672
11	Professional, Scientific and Technical Services	541	1,562
12	Manufacturing: Transportation Equipment	336	1,559
13	Publishing Industries	511	1,549
14	Telecommunications	517	1,513
15	Heavy and Civil Engineering Construction	237	1,469
16	Internet Service Providers and Portals	518	1,204
17	Manufacturing: Miscellaneous	339	1,168
18	Manufacturing: Beverage and Tobacco Prods	312	1,161
19	Wholesalers: Durable Goods	423	1,130
20	Manufacturing: Machinery	333	1,126
21	Construction of Buildings	236	1,114
22	Wholesale Electronic Markets	425	1,088
23	Manufacturing: Chemicals	325	1,083
24	Real Estate, Rental and Leasing	53	1,015
25	Manufacturing: Paper	322	989
26	Manufacturing: Electrical Equipment and Appliances	335	983
27	Manufacturing: Primary Metal	331	948
28	Retail: Nonstore Retailers	454	941
29	Manufacturing: Fabricated Metal Prods	332	939
30	Wholesalers: Nondurable Goods	424	923

Sources: California Employment Development Department; LAEDC

<sup>11</sup> The average weekly wage for all private sector employment in Los Angeles County in 2008 was \$990, which 24 industries exceed.

Finally, we examine the potential of industries to create jobs in Exhibit 3-10. This is consequence of two factors: the size of the industry and its growth potential. A small industry growing quickly may add many jobs but may yet add fewer jobs than a large industry growing slowly.

The exhibit shows historical data for 2008 and forecasted data for 2020. Industries are ranked by their forecasted employment gains from 2008 to 2020. Taken together, these industries are expected to add 409,920 jobs during the period from 2008 to 2020.

<b>Exhibit 3-10</b> <b>Top 25 Industries by Forecasted Job Creation</b> <b>Los Angeles County</b>						
Rank	NAICS Industry Sector	NAICS	Employment		Change 2008-2020	
			2008	2020 (forecast)	Δ Jobs	Annual Ave % Change
1	Health Care and Social Assistance	62	396,520	514,240	117,720	2.1
2	Administrative, Support, Waste Mgmt	56	257,290	318,810	61,530	2.4
3	Accommodation and Food Services	72	327,080	386,300	59,230	1.7
4	Professional, Scientific and Technical Services	541	270,460	299,860	29,400	1.2
5	Educational Services	611	105,140	131,310	26,160	1.4
6	Local Government	93	470,510	496,430	25,930	0.5
7	Finance and Insurance	52	156,250	168,850	12,590	1.1
8	Wholesale Electronic Markets	425	26,840	38,520	11,676	3.5
9	Arts, Entertainment and Recreation	71	72,560	81,160	8,600	1.2
10	Wholesalers: Nondurable Goods	424	91,960	99,180	7,220	0.8
11	Religious, Civic and Professional Orgs	813	56,500	63,190	6,700	0.9
12	Manufacturing: Computer / Electronic Prods	334	54,170	60,790	6,620	1.4
13	Retail: General Merchandise Stores	452	65,560	71,850	6,290	1.1
14	Real Estate, Rental and Leasing	53	79,270	85,500	6,240	0.8
15	State Government	92	82,390	87,190	4,800	0.4
16	Retail: Health and Personal Care Stores	446	30,060	34,050	4,000	1.2
17	Retail: Clothing Stores	448	55,840	59,200	3,360	1.1
18	Other Information Services	519	8,070	11,220	3,140	2.0
19	Manufacturing: Machinery	333	18,720	21,390	2,670	1.7
20	Motion Picture and Sound Recording Studios	512	131,920	134,580	2,660	0.8
21	Retail: Food and Beverage Stores	445	90,030	91,850	1,820	0.1
22	Retail: Building Materials and Garden Eqmpt	444	24,610	25,570	960	0.9
23	Manufacturing: Leather and Allied Products	316	2,360	2,620	254	2.1
24	Manufacturing: Fabricated Metal Products	332	49,140	49,370	224	0.8
25	Manufacturing: Miscellaneous	339	20,680	20,810	126	0.6

Sources: California Employment Development Department; Moody's Economy.com; LAEDC

The industry with the largest employment gains expected from 2008 to 2020 is Health Care and Social Assistance, which is forecasted to add 117,720 jobs. As we saw in Exhibit 3-8, this is the largest private industry in Los Angeles. In Exhibit 3-6 we noted that it is also an

industry with one of the highest expected growth rates, thus it is not surprising to find that its job creation potential tops the list.

The second largest job creation potential is in the Administrative, Support and Waste Management industry, expected to add 61,530 jobs between 2008 and 2020, followed by Accommodation and Food Services, which is forecasted to add 59,230 jobs during the same period.

## Potential for Job Creation in SELACO

Having determined which industries are likely to grow over the next ten years in Los Angeles County, we now examine the industrial profile of the SELACO WIA in comparison to Los Angeles County. Employment by industry sector in 2008 for the two regions is shown in Exhibit 3-11.<sup>12</sup>

Exhibit 3-11 Industrial Profile (2008) SELACO and Los Angeles County					
Industry Sector	Los Angeles County		SELACO		SELACO as % of LAC
	Employed	% of total	Employed	% of total	
Total Nonfarm Payroll	4,070,940		136,835		3.4
Goods Producing Industries	583,560	14.3	12,328	9.0	2.1
Natural Resources and Mining	4,360	0.1	35	0.0	0.8
Construction	145,230	3.6	4,062	3.0	2.8
Manufacturing - Durable Goods	243,050	6.0	3,648	2.7	1.5
Manufacturing - Nondurable Goods	190,930	4.7	4,262	3.1	2.2
Service Providing Industries	2,883,410	70.8	96,875	76.1	3.4
Wholesale Trade	224,610	5.5	6,862	5.0	3.1
Retail Trade	417,760	10.3	22,645	16.6	5.4
Transportation, Warehousing, Utilities	162,090	4.0	3,506	2.8	2.2
Information	211,270	5.2	2,370	1.7	1.1
Financial Activities	235,520	5.8	7,235	5.3	3.1
Professional and Business Services	584,310	14.4	15,989	11.7	2.7
Educational and Health Services	501,660	12.3	19,722	14.5	3.9
Leisure and Hospitality	399,640	9.8	16,317	12.0	4.1
Other Services	146,540	3.6	9,091	6.7	6.2
Government	603,980	14.8	20,265	14.9	3.4

Sources: California Employment Development Department; LAEDC

Nonfarm payroll employment in SELACO accounted for 3.4 percent of employment in Los Angeles County. The industrial structure in SELACO is weighted somewhat more heavily towards service-providing industries, which account for 76.1 percent of the nonfarm employment in SELACO compared to 70.8 percent in the county as a whole. Consequently, the share of goods-producing employment in SELACO is much lower than in Los Angeles County (9.0 percent versus 14.3 percent).

In fact, goods-producing employment in SELACO measures only 2.1 percent of all goods-producing employment in Los Angeles County (compared to 3.4 percent overall). Some

<sup>12</sup> As with the Los Angeles County data presented earlier, these data are from the Quarterly Census of Employment and Wages and do not include businesses without employees (such as self-proprietorships) or who hire family members as employees. Hence, actual employment is likely to be understated.

sectors are more highly represented in SELACO, such as Retail Trade, Educational and Health Services, Leisure and Hospitality and Other Services.

To better examine the industrial performance of SELACO, we segment larger industry sectors into their 3-digit NAICS industry. For example, Health Care and Social Assistance (NAICS 62) is a sector which includes: Ambulatory Health Care Services (NAICS 621), such as physicians' offices; Hospitals (NAICS 622); Nursing and Residential Care Facilities (NAICS 623); and Social Assistance (NAICS 624), such as community food services, child day care services and emergency relief services. Breaking larger industry sectors into their component parts allows a clearer picture of industry performance in SELACO.

Exhibit 3-12 shows the largest 25 industries in SELACO in 2008 as measured by employment. In this exhibit and others below, we focus on the private sector.

<b>Exhibit 3-12</b> <b>Top 25 Industries by Employment (2008)</b> <b>SELACO</b>				
Rank	NAICS Industry Sector	NAICS	Employment	
			2008	% of total
1	Food Services and Drinking Places	722	12,132	10.4
2	Administrative and Support Services	561	8,662	7.4
3	Ambulatory Health Care Services	621	8,502	7.3
4	Hospitals	622	5,812	5.0
5	Professional and Technical Services	541	5,204	4.5
6	Retail: General Merchandise Stores	452	5,128	4.4
7	Wholesalers: Durable Goods	423	4,601	1.2
8	Retail: Motor Vehicles and Parts Dealers	441	4,020	3.4
9	Retail: Clothing Stores	448	3,781	3.2
10	Amusement, Gambling and Recreation Industries	713	3,431	2.9
11	Nursing and Residential Care Facilities	623	3,341	2.9
12	Retail: Food and Beverage Stores	445	3,192	2.7
13	Repair and Maintenance	811	2,668	2.3
14	Specialty Trade Contractors	238	2,594	2.2
15	Credit Intermediation	522	2,549	2.2
16	Personal and Laundry Services	812	2,558	1.9
17	Real Estate	531	2,017	1.7
18	Management of Companies and Enterprises	551	2,006	1.7
19	Couriers and Messengers	492	1,917	1.6
20	Insurance Carriers and Related Activities	524	1,848	1.6
21	Telecommunications	517	1,622	1.4
22	Retail: Health and Personal Care Stores	446	1,485	1.3
23	Wholesalers: Nondurable Goods	424	1,441	1.2
24	Member Organizations and Associations	813	1,258	1.1
25	Retail: Building Materials and Garden Supplies	444	1,147	1.0

Sources: California Employment Development Department; LAEDC



The Food Services industry tops the list with 12,132 employees in SELACO in 2008, followed by Administrative and Support Services with 8,662 employees and Ambulatory Health Care Services with 8,502 employees.

Exhibit 3-13 shows the top 25 industries in SELACO by actual job creation over the seven year period from 2001 to 2008. The exhibit also shows the employment level in 2008 and the average annual growth rate in SELACO for each industry.

<b>Exhibit 3-13</b> <b>Top 25 Industries by Job Creation (2001 to 2008)</b> <b>SELACO</b>					
Rank	NAICS Industry Sector	NAICS	Jobs Created 2001 to 2008	Employment in 2008	Ave Annual % Change
1	Food Services and Drinking Places	722	2,145	12,132	2.8
2	Amusement, Gambling and Recreation Industries	713	1,846	3,431	11.7
3	Professional and Technical Services	541	1,553	5,204	5.2
4	Ambulatory Health Care Services	621	1,383	8,502	2.6
5	Couriers and Messengers	492	1,067	1,917	12.3
6	Repair and Maintenance	811	1,007	2,668	7.0
7	Manufacturing: Beverage and Tobacco Products	312	912	1,000	41.5
8	Retail: Clothing Stores	448	756	3,781	3.2
9	Wholesalers: Durable Goods	423	735	4,601	2.5
10	Insurance Carriers and Related Activities	524	701	1,848	7.1
11	Real Estate	531	698	2,017	6.3
12	Nursing and Residential Care Facilities	623	644	3,341	3.1
13	Personal and Laundry Services	812	499	2,258	3.6
14	Credit Intermediation	522	381	2,549	2.3
15	Retail: Health and Personal Care Stores	446	248	1,485	2.6
16	Retail: Nonstore Retailers	454	247	342	20.1
17	Wholesalers: Nondurable Goods	424	225	1,441	2.5
18	Wholesalers: Electronic Markets	425	220	820	4.6
19	Retail: General Merchandise Stores	452	213	5,128	0.6
20	Support Activities for Transportation	488	200	660	5.3
21	Retail: Food and Beverage Stores	445	196	3,192	0.9
22	Hospitals	622	179	5,812	0.4
23	Social Assistance	624	161	1,100	2.3
24	Retail: Furniture and Home Furnishings	442	141	540	4.4
25	Manufacturing: Nonmetallic Mineral Product	327	97	170	12.8

Sources: California Employment Development Department; LAEDC

The industry which recorded the largest number of jobs gained from 2001 to 2008 was Food and Beverage Establishments, adding 2,145 jobs between 2001 and 2008. The second largest job creation occurred in Amusement, Gambling and Recreation Industries, adding 1,846 jobs.

In addition to the potential for industries to create jobs, which is a function of both their expected growth and their size, we are also interested in the *specialization* of economic activity in SELACO. For example, it is possible that an industry has significant job creation potential in Los Angeles County but yet does not maintain a large presence in SELACO (or none at all). Without a specific business attraction strategy, the region is unlikely to see employment growth in such an industry.

On the other hand, an industry with a presence in SELACO that is larger (as a percentage of total employment in SELACO) than its presence in Los Angeles County would indicate that SELACO has a concentration of this industry in its region and thus the potential for higher employment creation.

Such relative concentration is measured by *location quotients*. A location quotient for an industry in SELACO shows the percentage of its total employment in an industry compared to the percentage in Los Angeles County (or other reference region). For example, if 2 percent of SELACO's employment is in the Hospitals industry, while in Los Angeles County only 1 percent is employed in the Hospitals industry, then the location quotient for employment in SELACO's Hospitals industry is 2. This means that SELACO is relatively more specialized in Hospitals than the county as a whole.<sup>13</sup> A location quotient of 1 would indicate that the local industry concentration is identical to that of the larger region.

Exhibit 3-14 on the following page shows the top 20 industries in SELACO by their 2008 employment location quotients compared to Los Angeles County. The location quotients for 2001 are also shown to provide an indication of the change over time in each industry's employment concentration (which will be discussed further below).

The industry with the highest location quotient in SELACO in 2008 was Beverage and Tobacco Products Manufacturing. This is due to the presence of a Coca-Cola Bottling plant in Downey, which employs at least 1,000 people. Relative to total employment in SELACO, this industry is therefore quite significant.

The industry with the second highest location quotient in SELACO in 2008 was Couriers and Messengers. Again, the presence of a few large employers in SELACO lends this industry some importance to the region. In this case, Consolidated Routing employs at least 250 people in its Downey location; Unity Courier Services in Cerritos has additional employment of up to 100.

The third most concentrated industry is Amusement, Gambling and Recreation. The Hawaiian Gardens Casino employs at least 5,000 people. Although this industry is also well-represented in Los Angeles County as a whole, the presence of the casino in Hawaiian Gardens makes the industry relatively more concentrated in SELACO.

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<sup>13</sup> Of course, the *county's* employment structure is only one reference. We can alternatively use the *state's* employment structure. However, we prefer the county comparison for this analysis given the localized nature of the labor market.

<b>Exhibit 3-14</b> <b>Top 25 Industries by Employment Location Quotients (2001 and 2008)</b> <b>SELACO vs. Los Angeles County</b>				
Rank	NAICS Industry Sector	NAICS	Location Quotient 2008	Location Quotient 2001
1	Manufacturing: Beverage and Tobacco Products	312	5.70	0.59
2	Couriers and Messengers	492	2.82	1.11
3	Amusement, Gambling and Recreation	713	2.72	1.56
4	Retail: Motor Vehicles and Parts Dealers	441	2.58	2.94
5	Retail: General Merchandise Stores	452	2.39	2.72
6	Retail: Clothing Stores	448	2.06	2.02
7	Repair and Maintenance	811	2.00	1.27
8	Telecommunications	517	1.78	1.61
9	Manufacturing: Paper	322	1.77	1.64
10	Hospitals	622	1.66	1.75
11	Nursing and Residential Care Facilities	623	1.60	1.40
12	Ambulatory Health Care Services	621	1.57	1.70
13	Retail: Health and Personal Care Stores	446	1.52	1.40
14	Manufacturing: Machinery	333	1.45	1.50
15	Retail: Building Materials and Garden Supplies	444	1.44	2.11
16	Personal and Laundry Services	812	1.42	1.22
17	Wholesalers: Durable Goods	423	1.34	1.02
18	Food Services and Drinking Places	722	1.30	1.28
19	Retail: Sporting Goods, Books, Music, Hobbies	452	1.24	2.72
20	Heavy and Civil Engineering Construction	237	1.23	1.49
21	Retail: Miscellaneous Stores	453	1.19	1.19
22	Retail: Electronics and Appliances	443	1.19	1.15
23	Real Estate	531	1.14	0.84
24	Retail: Furniture and home Furnishings	442	1.11	0.86
25	Management of Companies	551	1.09	0.86

Sources: California Employment Development Department; LAEDC

All three of these industries showed significant increases in their location quotient between 2001 and 2008, implying that they became relatively more important from an employment perspective during this time.

Having reviewed the performance of industries in Los Angeles County and in SELACO and the forecast of employment in the region, we derive a method for identifying the most promising industries to target for job retention efforts in the next section.



In this section, we identify potential target industries in SELACO for job retention and expansion efforts.

We develop two composite indices reflective of each industry's performance. The first index is indicative of industry performance in Los Angeles County; the second is specific to the SELACO region. Thereafter we examine industries which have been growing in relative strength in SELACO. From these three indicators, we identify those industries which are most promising targets.

## Methodology

In the previous section, we reviewed the performance of industries in Los Angeles County along four criteria: forecasted employment growth rate from 2010 to 2020; industry size, measured by employment level in 2008; employee earnings, measured by average weekly wages paid in 2008; and forecasted job creation potential from 2008 to 2020. Specific to the SELACO region, we also reported the top industries measured by employment level in SELACO, the industries with the largest number of jobs created in SELACO since 2001, and the location quotients of industries in SELACO using Los Angeles County as our reference region.

Each of these measures provides an indication of whether an industry has the potential to be an attractive target for job retention. For example, the employment growth rate indicates whether an industry has growth potential in the region. While important, this by itself may be insufficient, since a slow-growing industry may yet have the ability to produce many jobs if it has a substantial job base; therefore, we also consider job creation potential. Industries paying high wages are generally attractive. We consider the size of the industry since an industry that maintains a large presence in the region implies that industry-specific factors necessary for success are already present.

For the purposes of this exercise, we evaluate only private industries.

### ***Los Angeles County Composite Index***

We derive a composite index of the four Los Angeles County criteria that will allow us to compare industries with varying performance on the individual criteria. The composite index is derived as follows. We first rank all industries for each criterion and separate them into three groups (the top-ranked, the middle-ranked and the lowest-ranked) according to definitions outlined below. The top-ranked industries are given a "1", the middle-ranked a

“0” and the lowest-ranked a “-1”. The composite index is the sum of the four individual entries for each industry (and therefore weighs each criterion equally). The groups for each criterion are defined as follows:

- ❖ *Employment growth rate in Los Angeles County:*
  - In the top-ranked group are industries whose forecasted growth rate exceeds the average for all industries;
  - In the middle-ranked group are industries below the average but still with positive forecasted employment growth;
  - Industries with negative forecasted employment growth are in the lowest-ranked group.
  - Employment growth is shown in Exhibit 3-6.
- ❖ *Industry Size in Los Angeles County:*
  - In the top-ranked group are industries whose employment levels exceed the average for all industries;
  - In the middle-ranked group are industries below the average but larger than 10 percent of employment in the largest industry;
  - The remaining industries are in the lowest-ranked group.
  - Employment by industry for the top 30 industries in Los Angeles County is shown in Exhibit 3-8.
- ❖ *Average Wages in Los Angeles County:*
  - In the top-ranked group are industries whose average weekly wages exceeds the average for all industries;
  - In the middle-ranked group are industries below the average but higher than one-quarter of the top-paying industry;
  - The remaining industries are in the lowest-ranked group.
  - Average wages by industry in Los Angeles County are shown for the top 30 industries in Exhibit 3-9.
- ❖ *Forecasted Job Creation in Los Angeles County:*
  - In the top-ranked group are industries whose forecasted job creation from 2008 to 2020 exceed the average for all industries;
  - In the middle-ranked group are industries below the average but still with positive forecasted job creation;
  - Industries which are forecasted to see job destruction between 2008 and 2020 are in the lowest-ranked group.
  - Job creation potential for the top 35 industries in Los Angeles County is shown in Exhibit 3-10.

### ***SELACO Composite Index***

We derive a composite index of the three SELACO criteria using the same procedure as outlined above. The groups for each criterion in the SELACO Composite Index are defined as follows:

❖ *Industry Size in SELACO:*

- In the top-ranked group are industries whose employment levels exceed the average for all industries in SELACO;
- In the middle-ranked group are industries below the average but larger than 5 percent of employment in the largest industry;
- The remaining industries are in the lowest-ranked group.
- Industry capacity is shown for the top 25 industries in SELACO in Exhibit 3-12.

❖ *Job Creation in SELACO from 2001 to 2008:*

- In the top-ranked group are industries whose historical job creation from 2001 to 2008 exceed the average for all industries;
- In the middle-ranked group are industries below the average but still with positive historical job creation;
- The remaining industries are in the lowest-ranked group.
- Job creation from 2001 to 2008 for the top 25 industries in SELACO is shown in Exhibit 3-13.

❖ *Location Quotient in 2008:*

- In the top-ranked group are industries with a location quotient of greater than 1.1;
- In the middle-ranked group are industries with a location quotient between 0.9 and 1.1;
- The remaining industries are in the lowest-ranked group.
- Location quotients for the top 25 industries in SELACO are shown in Exhibit 3-14.

In addition to the composite index, we look at the recent performance of industries in SELACO by the growth in location quotient since 2001.

## Results

Exhibit 4-1 lists those industries with a non-negative Los Angeles Composite Index. The individual scores for each criterion are shown along with the composite index. These industries are potential targets given their performance in Los Angeles County. We have shaded rows that present retail industries.

There are three industries with a composite index of “4”. This means that they are top-ranked industries in all four criteria in Los Angeles County: they are high-growth, large, relatively well-paying and have high job creation potential. These industries are: Professional, Scientific and Technical Services; Finance and Insurance; and Arts, Entertainment and Recreation.

There are four industries with a composite index of “3”, meaning that they are top-ranked in three of the four criteria in Los Angeles County. These industries are: Computer and

Electronic Products Manufacturing; Educational Services; Health Care and Social Assistance; and Real Estate and Rental and Leasing.

Exhibit 4-1 Top 25 Target Industries Using the Los Angeles County Composite Index							
Rank	NAICS Industry Sector	NAICS	LAC Criteria				Index
			Growth	Size	Wage	Job Creation	
1	Professional, Scientific and Technical Services	541	1	1	1	1	4
2	Finance and Insurance	52	1	1	1	1	4
3	Arts, Entertainment and Recreation	71	1	1	1	1	4
4	Manufacturing: Computer /Electronic Prods	334	1	0	1	1	3
5	Educational Services	611	1	1	0	1	3
6	Health Care and Social Assistance	62	1	1	0	1	3
7	Real Estate and Rental and Leasing	53	0	1	1	1	3
8	Wholesalers: Nondurable Goods	424	0	1	0	1	2
9	Wholesale Electronic Markets	425	1	-1	1	1	2
10	Retail: General Merchandise Stores	452	1	1	-1	1	2
11	Motion Picture and Sound Recording	512	0	1	1	0	2
12	Administrative, Support, Waste Mgmt	56	1	1	-1	1	2
13	Accommodation and Food Services	72	1	1	-1	1	2
14	Manufacturing – Fabricated Metal Products	332	1	0	0	0	1
15	Manufacturing: Machinery	333	1	-1	1	0	1
16	Wholesalers: Durable Goods	423	0	1	1	-1	1
17	Information Services	519	1	-1	1	0	1
18	Religious, Civic, Professional Organizations	813	0	0	0	1	1
19	Specialty Trade Contractors	238	0	1	0	-1	0
20	Manufacturing: Beverage and Tobacco Prod	312	0	-1	1	0	0
21	Manufacturing: Furniture	337	1	-1	0	0	0
22	Manufacturing: Miscellaneous	339	0	-1	1	0	0
23	Retail: Food and Beverages	445	0	1	-1	0	0
24	Retail: Clothing Stores	448	1	0	-1	0	0
25	Transportation and Warehousing	48-49	0	1	0	-1	0
26	Management of Companies	551	0	0	1	-1	0

Source: LAEDC

Exhibit 4-2 lists industries with a non-negative SELACO Composite Index. There are fourteen industries with a composite index of “3”, indicating that they are top-ranked in all three criteria in the SELACO region: they have a relatively large presence in SELACO; they experienced high levels of actual job creation in SELACO since 2001; and they have a higher employment concentration in SELACO compared to Los Angeles County as a whole.

These industries include: Durable Goods Wholesalers; retailers of several types of goods; Couriers and Messengers; Credit Intermediation (essentially banks and credit unions); Real Estate; Health Services; Amusement, Gambling and Recreation; and Repair and Maintenance.



Exhibit 4-2 Top 25 Target Industries Using the SELACO Composite Index						
Rank	NAICS Industry Sector	NAICS	SELACO Criteria			Index
			Size	Jobs Created	LQ	
1	Wholesalers: Durable Goods	423	1	1	1	3
2	Retail: Health and Personal Care Stores	446	1	1	1	3
3	Retail: Clothing Stores	448	1	1	1	3
4	Retail: General Merchandise Stores	452	1	1	1	3
5	Couriers and Messengers	492	1	1	1	3
6	Credit Intermediation and Related Activity	522	1	1	1	3
7	Real Estate	531	1	1	1	3
8	Ambulatory Health Care Services	621	1	1	1	3
9	Hospitals	622	1	1	1	3
10	Nursing and Residential Care Facilities	623	1	1	1	3
11	Amusement, Gambling and Recreation Industries	713	1	1	1	3
12	Food Services and Drinking Places	722	1	1	1	3
13	Repair and Maintenance	811	1	1	1	3
14	Personal and Laundry Services	812	1	1	1	3
15	Manufacturing: Beverage and Tobacco Prod	312	0	1	1	2
16	Retail: Food and Beverages	445	1	1	0	2
17	Insurance Carriers and Related Activity	524	1	1	0	2
18	Wholesalers: Nondurable Goods	424	1	1	-1	1
19	Wholesale Electronic Markets	425	0	1	0	1
20	Retail: Motor Vehicle and Parts Dealers	441	1	-1	1	1
21	Retail: Furniture and Home Furnishings	442	-1	1	1	1
22	Retail: Electronics and Appliances	443	0	0	1	1
23	Telecommunications	517	1	-1	1	1
24	Professional, Scientific and Technical Services	541	1	1	-1	1
25	Manufacturing – Fabricated Metal Products	332	0	1	-1	0
26	Manufacturing: Machinery	333	0	-1	1	0
27	Retail: Building Materials, Garden Equipment	444	0	-1	1	0
28	Retail: Sporting Gds, Hobbies, Books, Music	451	0	-1	1	0
29	Retail: Nonstore Retailers	453	0	-1	1	0
30	Retail: Miscellaneous Stores	454	-1	1	0	0
31	Support Activities for Transportation	488	0	1	-1	0
32	Rental and Leasing Services	532	0	1	-1	0
33	Management of Companies	551	1	-1	0	0
34	Administrative and Support Services	561	1	-1	0	0
35	Social Assistance	624	0	1	-1	0
36	Accommodation	721	0	1	-1	0

Source: LAEDC

Exhibit 4-3 lists the industries in SELACO in order of the growth in their location quotient since 2001.<sup>14</sup> This provides an indication of how the presence of the industry in SELACO has strengthened.

<sup>14</sup> Only industries with positive growth in location quotient are shown.

<b>Exhibit 4-3</b> <b>Industries in SELACO by Growth in Location Quotient (2001 to 2008)</b> <b>SELACO vs. Los Angeles County</b>				
Rank	NAICS Industry Sector	NAICS	% Change since 2001	Location Quotient 2008
1	Support Activities for Mining	213	19528.3	0.7
2	Water Transportation	483	17952.6	0.4
3	Pipeline Transportation	486	8483.2	0.6
4	Manufacturing: Beverage and Tobacco Products	312	859.3	5.7
5	Manufacturing: Nonmetallic Mineral Products	327	292.9	0.8
6	Manufacturing: Leather and Allied Products	316	214.6	0.3
7	Nonstore Retailers	454	203.4	1.0
8	Couriers and Messengers	492	153.4	2.8
9	Manufacturing: Petroleum and Coal Products	324	145.7	0.0
10	Amusement, Gambling and Recreation	713	74.1	2.7
11	Insurance Carriers and Related Activity	524	69.5	1.1
12	Repair and Maintenance	811	57.3	2.0
13	Air Transportation	481	47.5	0.0
14	Manufacturing: Apparel	314	42.1	0.3
15	Real Estate	531	36.4	1.1
16	Support Activities for Transportation	488	34.9	0.5
17	Professional and Technical Services	541	34.5	0.6
18	Printing and Related Support Activities	323	32.6	1.0
19	Wholesalers: Durable Goods	423	30.9	1.3
20	Manufacturing: Fabricated Metal Products	332	29.4	0.6
21	Retail: Furniture and Home Furnishings	442	28.8	1.1
22	Mining (except Oil and Gas)	212	27.9	0.0
23	Management of Companies	551	25.8	1.1
24	Manufacturing: Wood Products	321	19.5	0.7
25	Performing Arts and Spectator Sports	711	19.3	0.1
26	Scenic and Sightseeing Transportation	487	16.5	0.0
27	Personal and Laundry Services	812	16.2	1.4
28	Nursing and Residential Care Facilities	623	13.8	1.6
29	Warehousing and Storage	493	11.6	0.8
30	Textile Mills	313	11.4	0.5
31	Telecommunications	517	10.8	1.8
32	Credit Intermediation and Related Activity	522	8.1	1.1
33	Retail: Health and Personal Care Stores	446	8.1	1.5
34	Manufacturing: Paper	322	7.8	1.8
35	Rental and Leasing Services	532	7.4	0.9
36	Accommodation	721	4.9	0.5
37	Wholesalers: Nondurable Goods	424	4.5	0.5
38	Retail: Electronics and Appliances	443	3.9	1.2
39	Manufacturing: Food	311	2.7	0.6
40	Retail: Clothing Stores	448	1.9	2.1
41	Food Services and Drinking Places	722	1.0	1.3
42	Retail: Miscellaneous Stores	453	0.5	1.2

Source: LAEDC

## Discussion

We have developed three indicators for industry targeting. First, we have a composite index showing each industry's performance in Los Angeles County. Second, we have a composite index for industry performance in SELACO. Lastly, we have a list of industries which have become relatively more important in SELACO over the past seven years. From these three indicators, we focus on industries that are most likely to be good targets for job retention activities, including both export-oriented and population-serving industries. These industries are listed in Exhibit 4-4, and are individually described below.

Exhibit 4-4 Target Industries		
Rank	NAICS Industry Sector	NAICS
1	Professional and Technical Services	541
2	Ambulatory Health Care Services	621
3	Hospitals	622
4	Nursing and Residential Care Facilities	623
5	Educational Services	611
6	Manufacturing: Fabricated Metal Products	332
7	Manufacturing: Machinery	333
8	Manufacturing: Computer and Electronic Products	334
9	Manufacturing: Beverage and Tobacco Products	312
10	Wholesalers: Durable Goods	423
11	Wholesalers: Nondurable Goods	424
12	Electronic Markets	425
13	Motion Picture and Sound Recording Industries	512
14	Repair and Maintenance	811
15	Waste Management and Remediation Services	562

### ***Professional, Scientific and Technical Services***

This industry includes sectors which specialize in performing professional, scientific and technical activities for others. These activities typically require a high degree of expertise and training. Included are activities such as legal services, architectural, engineering, interior and industrial design, computer design and programming, management consulting, advertising, market research and environmental consulting.

- This is a large industry sector which employed over 270,000 people in Los Angeles County in 2008, including more than 49,200 jobs in the Legal Service subsector; another 41,500 in Accounting, Tax Preparation and Payroll Services; almost 42,000 in Architectural and Engineering Services; and more than 41,600 in Management and Technical Consulting. The industry employed 5,200 people in SELACO in 2008. The

industry is expected to grow at an average rate of 1.6 percent per year in Los Angeles County from 2010 to 2020.

- The average annual wage in this industry in Los Angeles County was \$81,244 in 2008.

### ***Health Care (Ambulatory Health Care, Hospitals and Nursing and Residential Care)***

This is a large and growing industry sector which includes establishments providing health care, including: ambulatory health care services such as doctors' offices, dentistry practices, medical laboratories and home health care services; hospitals; and nursing and residential care facilities.

- The sector employed almost 338,000 people in 2008 in Los Angeles County, and is forecasted to grow at a robust rate of 2.4 percent per year on average from 2010 to 2020. In SELACO, employment numbered 17,650 in 2008.
- The average annual wage in this industry was \$50,832 in 2008 in Los Angeles County.

### ***Educational Services***

These industries provide instruction and training by specialized establishments such as schools, colleges, universities and training centers. Educational services are usually delivered by teachers or instructors with requisite subject matter expertise, and can be delivered in a variety of settings such as classrooms, the workplace or the home through correspondence, television or online. These industries do not include public education.

- Employment in Education Services in Los Angeles County was 94,825 in 2008, almost half of which was in colleges and universities. Growth is forecasted to be 1.6 percent per year on average in Los Angeles County between 2010 and 2020. In SELACO, employment numbered 967 in 2008.
- The average annual wage in the industry in Los Angeles County was \$41,408 in 2008.

### ***Manufacturing (Selected Products)***

Manufacturing as a whole has been in decline in Los Angeles County and nationwide. Nevertheless, several manufacturing industries appear to be promising targets for employment growth in SELACO given their performance on our criteria. These include: Beverage and Tobacco Products; Computer and Electronic Products; Fabricated Metal Products; and Machinery.

- Employment in these four industries was 127,000 people in Los Angeles County in 2008, and almost 3,000 people in SELACO.
- Average annual wage in 2008 was \$66,999 in Los Angeles County.

### ***Wholesaling: Durable Goods, Nondurable Goods and Electronic Markets***

Firms engaged in wholesale trade sell merchandise to other businesses and normally operate from a warehouse or office, which typically have little or no display of merchandise. Electronic markets are those in which firms arrange transactions that facilitate wholesale trade using the internet or other electronic means (and therefore do not maintain warehouse space).

- Employment in 2008 was 223,707 in Los Angeles County. Growth is forecasted to be 1.1 percent per year on average in Los Angeles County between 2010 and 2020. In SELACO, employment in 2008 was 6,862, of which 820 was in electronic markets.
- Average annual wage in 2008 was \$54,105 in Los Angeles County.

### ***Motion Picture and Sound Recording Industries***

Industries in this sector include establishments involved in the production and distribution of motion pictures and sound recording, including activities related to production and technical post-production services.

- Employment in 2008 was 208,578 in Los Angeles County; in SELACO, there were 538 employed.
- Average annual wage in 2008 was \$87,639 in Los Angeles County.

### ***Repair and Maintenance***

This subsector includes industries which restore machinery, equipment and other products to working order. Included are activities such as automotive repair and maintenance, electronic and precision equipment repair and maintenance, and commercial and industrial machinery and equipment repair and maintenance. We anticipate that retrofitting of vehicles and equipment to comply with new environmental regulations and mandates will generate new opportunities in the sub-industries of this subsector.

- This is a small subsector which employed almost 41,000 people in Los Angeles County in 2008, of which 75 percent were in Automotive Repair and Maintenance. The subsector employed 2,670 people in SELACO in 2008.
- The average annual wage in Los Angeles County was \$33,010 in 2008.

### ***Waste Management and Remediation Services***

This industry is composed of establishments engaged in the collection, treatment and disposal of waste materials, including: local hauling of waste; materials recovery facilities, such as recyclers; remediation service providers, such as contamination clean-up; and septic

pumping. We anticipate that increased focus on the treatment and recycling of waste materials will provide new opportunities in this industry.

- This is a small industry which employed 9,000 people in Los Angeles County, and 117 people in SELACO, in 2008.
- Average annual wage in 2008 was \$51,784 in Los Angeles County.

In this section, we examine the occupational composition of the fifteen most promising industry sectors for job retention and expansion as identified in the previous section.

For each identified industry, we first examine its occupational composition by major occupational group. Major occupational groups are aggregations used to classify workers using the 2000 Standard Occupational Classification (SOC) System. Major groups include broad descriptive categories such as production occupations, management occupations and business and financial operations occupations.

Within these major groups are 821 detailed occupations. Detailed occupations are differentiated according to the job skills, abilities and work activities required. They are not generally industry-specific but are common to several industries. For example, retail salespersons are employed in a full spectrum of industries.

For each identified industry, detailed occupations are reported for those major occupational groups with sufficient employment share. Education and training requirements are provided, along with the annual median wage in Los Angeles County for each detailed occupation and the total number of people employed in this occupation across all industries in Los Angeles County.

We begin with a description of the occupational structure of Los Angeles County.

## Occupations in Los Angeles County

The occupational employment structure in Los Angeles County by major occupational group is shown in Exhibit 5-1, along with the annual median wage of each group. Major groups are listed in numerical order.

<b>Exhibit 5-1</b> <b>Employment by Major Occupational Group (May 2008)</b> <b>Los Angeles County</b>				
<b>SOC</b>	<b>Occupation Group Title</b>	<b>Employment</b>	<b>% of total employment</b>	<b>Annual median wage</b>
11-0000	Management occupations	231,870	5.6	\$ 101,520
13-0000	Business and financial operations occupations	214,890	5.2	63,530
15-0000	Computer and mathematical science occupations	89,590	2.2	75,130
17-0000	Architecture and engineering occupations	76,530	1.8	80,100
19-0000	Life, physical, and social science occupations	33,030	0.8	61,770
21-0000	Community and social services occupations	48,660	1.2	45,120
23-0000	Legal occupations	37,940	0.9	100,720
25-0000	Education, training, and library occupations	268,080	6.4	50,580
27-0000	Arts, design, entertainment, sports, and media occupations	141,310	3.4	49,870
29-0000	Healthcare practitioners and technical occupations	182,570	4.4	69,950
31-0000	Healthcare support occupations	93,390	2.2	25,950
33-0000	Protective service occupations	107,750	2.6	32,030
35-0000	Food preparation and serving related occupations	323,940	7.8	18,800
37-0000	Building and grounds cleaning and maintenance occupations	104,250	2.5	23,190
39-0000	Personal care and service occupations	96,550	2.3	21,480
41-0000	Sales and related occupations	415,400	10.0	26,570
43-0000	Office and administrative support occupations	810,200	19.5	32,270
47-0000	Construction and extraction occupations	139,610	3.4	44,310
49-0000	Installation, maintenance, and repair occupations	127,820	3.1	41,820
51-0000	Production occupations	316,470	7.6	24,250
53-0000	Transportation and material moving occupations	297,860	7.2	25,470

Source: BLS

The largest occupational group is office and administrative support occupations, making up almost 20 percent of all employment in Los Angeles County in 2008, or more than 810,000 jobs. Sales and related occupations is the second-largest group with ten percent of all jobs. The highest-paid on average were management occupations, followed closely by legal occupations.

Exhibit 5-2 on the following pages presents the top 50 detailed occupations in Los Angeles County by employment. Because each detailed occupation may be common to many industries, the exhibit provides a list of those industries which employ this occupation. These



industries are listed in order of employment in May of 2008. The annual median wage in Los Angeles County for each occupation is also shown.

The single largest detailed occupation is retail salespersons, with over 126,000 employed in Los Angeles County in May of 2008 with a median annual wage of \$20,690. As shown, this occupation is common to many industries. The second largest detailed occupation is general office clerks, with almost 119,000 employed earning a median annual wage of \$26,400.

Following this exhibit are the occupational data sheets for each identified target industry. These are presented in the same order as in Exhibit 4-4. For each industry, we report the employment in Los Angeles County and in SELACO in 2008, and the average annual wage. We provide a breakdown of the occupational makeup of each industry by major group, and for each major group with a significant share of the industry's employment, we provide a list of the detailed occupations therein, including: the education and training required; the median annual wage in Los Angeles County; and the total number of persons employed in Los Angeles County in that detailed occupational group in 2008.

**Exhibit 5-2**  
**Top 50 Detailed Occupations by Employment (May 2008)**  
**Los Angeles County**

Rank	SOC	Occupation title	Employing industries	Total employment in LAC	Annual median wage
1	41-2031	Retail salespersons	Retail stores such as clothing, building materials, electronics and appliance stores, etc.; motor vehicle dealers; florists; employment services; electronic shopping and mail-order houses; wholesalers; wired telecommunications carriers; museums, parks and historical sites.	126,030	\$ 20,690
2	43-9061	Office clerks, general	Local and state government; colleges and universities; elementary and secondary schools; temporary employment services; hospitals; offices of real estate agents; offices of physicians; accounting and bookkeeping services; legal services; insurance agencies; management of companies; junior colleges; electronic markets; insurance carriers; management and technical consulting services; residential building construction; activities related to real estate; computer systems design services; architectural and engineering services; banks and credit unions; religious organizations; service to buildings.	118,720	26,440
3	41-2011	Cashiers	Retail stores; restaurants; movie theatres; amusement parks and arcades; automotive repair and maintenance; local government; hospitals; spectator sports; performing arts companies.	92,580	19,170
4	53-7062	Laborers and freight, stock, and material movers, hand	Temporary employment agencies; warehousing and storage; couriers; wholesalers; general and specialized freight trucking; building material and supplies dealers; motion picture and video industries; grocery stores; furniture stores; building equipment contractors.	84,090	22,100
5	11-1021	General and operations managers	Management of companies; management and technical consulting services; computer systems design services; local government; architectural and engineering services; grocery stores; electronic markets; residential building construction; office administrative services; restaurants; accounting and bookkeeping services; retail stores; insurance agencies; advertising services.	68,770	107,470

Exhibit 5-2 (continued)					
Rank	SOC	Occupation title	Employing industries	Total employment in LAC	Annual median wage
6	43-6011	Executive secretaries and administrative assistants	Local government; temporary agencies; elementary and secondary schools; management and technical consulting services; colleges and universities; management of companies; architectural and engineering services; accounting and bookkeeping services; offices of real estate agents and brokers; financial investment activities; residential building construction; hospitals; computer systems design and related services; religious organizations; office administrative services; insurance carriers; scientific research and development services.	65,830	\$ 43,240
7	35-3031	Waiters and waitresses	Restaurants; accommodation; drinking places; caterers; temporary agencies; local government; gambling industries; community care facilities for the elderly; civic and social organizations.	63,810	18,190
8	29-1111	Registered nurses	Hospitals; offices of physicians; temporary employment agencies; local, state and federal government; home health care services; outpatient care centers; nursing care facilities; elementary and secondary schools; psychiatric and substance abuse hospitals; insurance carriers.	63,650	79,240
9	43-4051	Customer service representatives	Insurance carriers; temporary employment agencies; management of companies; banks and credit unions; wireless telecommunication carriers; management and technical consulting services; local government; office administrative services; hospitals; electronic markets; computer systems design; business support services; wholesalers; mail order houses; retail stores; construction.	60,720	32,800
10	35-3021	Combined food preparation and serving workers, including fast food	Restaurants; grocery stores; elementary and secondary schools; special food services; specialty food stores; hospitals; accommodation; amusement parks and arcades; community care facilities for the elderly; motion picture and video industries; nursing care facilities.	59,820	18,050

Exhibit 5-2 (continued)					
Rank	SOC	Occupation title	Employing industries	Total employment in LAC	Annual median wage
11	43-3031	Bookkeeping, accounting, and auditing clerks	Accounting and bookkeeping services; local government; management of companies; elementary and secondary schools; banks and credit unions; building equipment contractors; hospitals; electronic markets; temporary employment agencies; activities related to real estate; offices of physicians; residential building construction; insurance carriers; office administrative services; legal services; colleges and universities.	57,780	\$ 36,410
12	43-5081	Stock clerks and order fillers	Department stores; grocery stores; warehousing and storage; retail stores; wholesalers; electronic markets; hospitals; temporary employment agencies; local governments; management of companies; advertising.	56,740	20,970
13	37-2011	Janitors and cleaners, except maids and housekeepers	Services to buildings; elementary and secondary schools; local government; management of companies; hospitals; colleges and universities; religious organizations; temporary employment agencies; activities related to real estate.	54,000	21,970
14	25-2021	Elementary school teachers, except special education	Elementary and secondary schools; individual and family services; religious organizations.	53,670	57,310
15	33-9032	Security guards	Investigation and security services; local government; elementary and secondary schools; drinking places; hospitals; lessors of real estate; amusement parks and arcades; management of companies; temporary employment agencies; colleges and universities; spectator sports.	52,850	22,700
16	43-1011	First-line supervisors/managers of office and administrative support workers	Banks and credit unions; local and state government; offices of physicians; retail stores; management of companies; elementary and secondary schools; insurance carriers; offices of dentists; hospitals; legal services; business support services; insurance agencies; management and technical consulting services; temporary employment agencies; colleges and universities; accommodation.	52,680	50,560

Exhibit 5-2 (continued)					
Rank	SOC	Occupation title	Employing industries	Total employment in LAC	Annual median wage
17	25-9041	Teacher assistants	Elementary and secondary schools; colleges and universities; child day care services; junior colleges; other schools and instruction; religious organizations; local government; individual and family services; civic and social organizations.	48,600	\$ 28,030
18	41-4012	Sales representatives, wholesale / manufacturing, except technical and scientific products	Electronic markets; wholesalers; management of companies; printing and related support activities; beverage and tobacco product manufacturing; building finishing contractors; other manufacturing; software publishers; temporary employment agencies; motion picture and video industries.	47,490	52,800
19	13-1199	Business operations specialists, all other	Local, state and federal government; colleges and universities; hospitals; management of companies; insurance carriers; electronic markets; management and technical consulting services; office administrative services; elementary and secondary schools; banks and credit unions; architectural and engineering services; wholesalers; scientific research services; activities related to real estate; computer systems design services; social advocacy orgs.	42,470	64,420
20	13-2011	Accountants and auditors	Accounting and bookkeeping services; local government; management of companies; computer systems design; activities related to real estate; management and technical consulting services; architectural and engineering services; office administrative services; motion picture and video industries; colleges and universities; federal government; insurance carriers; elementary and secondary schools; hospitals; financial investment activities; legal services.	42,190	64,050
21	25-2031	Secondary school teachers (not special ed or vocational)	Local government; hospitals.	36,360	64,230
22	43-5071	Shipping, receiving, and traffic clerks	Couriers; warehousing and storage; department stores; wholesalers; electronic markets; retail stores; cut and sew apparel manufacturing; management of companies; semiconductor and electronic components manufacturing; medical equipment and supplies manufacturing; motion picture and video industries.	34,360	26,790

Exhibit 5-2 (continued)					
Rank	SOC	Occupation title	Employing industries	Total employment in LAC	Annual median wage
23	53-7064	Packers and packagers, hand	Grocery stores; plastics product manufacturing; wholesalers; warehousing and storage; bakeries and tortilla manufacturing; animal slaughtering and processing; converted paper product manufacturing; cut and sew apparel manufacturing; fruit, vegetable and specialty foods manufacturing; electronic markets.	34,300	\$ 18,480
24	51-6031	Sewing machine operators	Cut and sew apparel manufacturing; textile product mills; household and institutional furniture manufacturing; accessories and other apparel manufacturing; printing activities; textile mills; apparel knitting mills.	34,170	18,810
25	49-9042	Maintenance and repair workers, general	Lessors of real estate; local government; activities related to real estate; accommodation; elementary and secondary schools; colleges and universities; beverage and tobacco product manufacturing; management of companies; professional organizations; fruit, vegetable and specialty foods manufacturing; plastics product manufacturing; semiconductor and electronic components manufacturing; nonmetallic mineral product manufacturing; warehousing and storage; services to building; federal government; pharmaceutical and medicine manufacturing; facilities support services; nursing care facilities; community care facility for the elderly; commercial machinery repair.	32,020	36,690
26	41-1011	First-line supervisors/managers of retail sales workers	Retail stores; gasoline stations; automobile dealers; consumer goods rental; automotive equipment rental and leasing; lessors of real estate; management of companies; beverage and tobacco product manufacturing; wireless telecommunication carriers.	31,550	36,670
27	43-6014	Secretaries, except legal, medical, and executive	Elementary and secondary schools; local government; religious organizations; colleges and universities; accounting and bookkeeping services; architectural and engineering services; building equipment contractors; activities related to real estate; management and technical consulting services; federal government; residential building construction; offices of real estate agents; management of companies; hospitals; electronic markets; insurance carriers and agencies.	30,920	33,130

Exhibit 5-2 (continued)					
Rank	SOC	Occupation title	Employing industries	Total employment in LAC	Annual median wage
28	43-4171	Receptionists and information clerks	Offices of physicians; personal care services; legal services; offices of dentists; offices of real estate agents; hospitals; elementary and secondary schools; local government; accounting and bookkeeping services; religious organizations; insurance agencies; activities related to real estate; building equipment contractors; management and technical consulting services; management of companies; colleges and universities; banks and credit unions; outpatient care centers; automobile dealers; architectural and engineering services; motion picture and video industries; office administrative services.	30,890	\$ 25,950
29	31-1012	Nursing aides, orderlies, and attendants	Nursing care facilities; hospitals; community care facility for the elderly; local government; office of physicians; home health care services; state and federal government; outpatient care centers.	30,840	24,060
30	53-3032	Truck drivers, heavy and tractor-trailer	Freight trucking (general and specialized); nonmetallic mineral product manufacturing; wholesalers; support activities for road transportation; warehousing and storage; waste management and remediation service; couriers; building material and supplies dealers; freight transportation arrangement; management of companies; electronic markets; machinery and equipment rental and leasing; utility system construction; dairy product manufacturing; highway, street and bridge construction; building foundation and exterior contractors.	30,400	39,620
31	35-2011	Cooks, fast food	Limited-service restaurants; full-service restaurant; amusement parks and arcades; grocery stores; gasoline stations; accommodation.	30,280	17,950
32	47-2061	Construction laborers	Residential building construction; specialty trade contractors; building foundation and exterior contractors; nonresidential building construction; utility system construction; highway, street and bridge construction; building contractors; local government; services to buildings and dwellings; architectural and engineering services; land subdivision; waste management and remediation services; management of companies.	29,250	35,190

Exhibit 5-2 (continued)					
Rank	SOC	Occupation title	Employing industries	Total employment in LAC	Annual median wage
33	53-3033	Truck drivers, light or delivery services	Couriers; wholesalers; retail stores; automobile dealers; building material and supplies dealers; freight trucking; local messengers; warehousing and storage; electronic markets; consumer goods rental; florists; bakeries and tortilla manufacturing; management of companies.	29,220	\$ 28,490
34	35-2021	Food preparation workers	Limited-service restaurants; full-service restaurants; grocery stores; elementary and secondary schools; special food services; nursing care facilities; local government; hospitals; community care facility for the elderly; religious organizations; bakeries and tortilla manufacturing; colleges and universities.	28,430	18,790
35	35-2014	Cooks, restaurant	Full-service restaurants; accommodation; limited-service restaurants; other amusements and recreation industries; local government; gambling industries.	26,460	23,260
36	41-3099	Sales representatives, services, all other	Management and technical consulting services; computer systems design services; banks and credit unions; telecommunications resellers; ASPs and web search portals; advertising and related services; building equipment contractors; services to buildings and dwellings; wireless telecommunications carriers; insurance carriers; management of companies; accommodation; residential building construction; insurance agencies; wired telecommunications carriers; cable and other subscription programming; business supports services.	25,720	52,100
37	23-1011	Lawyers	Legal services; local, state and federal government; management of companies; insurance carriers; computer systems design services.	23,900	137,380
38	51-2092	Team assemblers	Medical equipment and supplies manufacturing; semiconductor and electronic components manufacturing; electrical equipment and appliances manufacturing; motor vehicle parts manufacturing; plastics product manufacturing; architectural and structural metals manufacturing; electronic instrument manufacturing; household and institutional furniture manufacturing; nonmetallic mineral product manufacturing; commercial and service industry machinery manufacturing; aerospace product and parts manufacturing.	22,880	21,280



Exhibit 5-2 (continued)					
Rank	SOC	Occupation title	Employing industries	Total employment in LAC	Annual median wage
39	43-6013	Medical secretaries	Offices of physicians; offices of dentists; hospitals; offices of other health practitioners; outpatient care centers; medical and diagnostic laboratories; home health care services, nursing care facilities.	22,730	\$ 29,890
40	43-9199	Office and administrative support workers, all other	Colleges and universities; local government; junior colleges; hospitals; management of companies; accounting and bookkeeping services; federal government; newspaper, book and directory publishers; office administrative services; insurance carriers; state government.	22,390	26,890
41	35-3022	Counter attendants: cafeteria, concessions, coffee shops	Limited-service restaurants; elementary and secondary schools; special food services; grocery stores; full-service restaurants; accommodation; specialty food stores; local government; junior colleges.	22,250	18,580
42	35-1012	First-line supervisors/managers of food prep and serving	Limited-service restaurants; full-service restaurants; elementary and secondary schools; grocery stores; special food services; drinking places; specialty food stores; local government; nursing care facilities; community care facility for the elderly; hospitals; amusement parks and arcades.	22,130	26,910
43	37-2012	Maids and housekeeping cleaners	Accommodation; hospitals; private households; services to buildings and dwellings; nursing care facilities; community care facility for the elderly; activities related to real estate; religious organizations; lessors of real estate; residential mental health facilities.	21,400	21,060
44	33-3051	Police and sheriff's patrol officers	Local, state and federal government; colleges and universities; junior colleges.	20,770	77,670
45	31-9092	Medical assistants	Offices of physicians; hospitals; outpatient care centers; offices of other health practitioners; state government; other ambulatory health care services; local government.	20,760	29,600

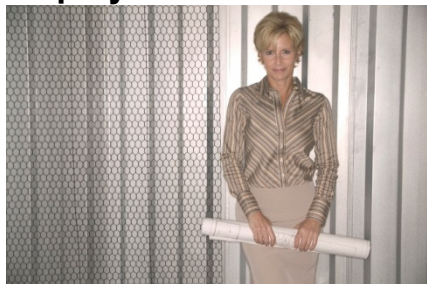
Exhibit 5-2 (continued)					
Rank	SOC	Occupation title	Employing industries	Total employment in LAC	Annual median wage
46	29-2061	Licensed practical and licensed vocational nurses	Hospitals; nursing care facilities; home health care services; offices of physicians; local government; community care facility for the elderly; outpatient care centers; federal government; residential mental health facilities; psychiatric and substance abuse hospitals; other hospitals.	20,720	\$ 45,770
47	25-1199	Postsecondary teachers, all other	Colleges and universities; junior colleges.	19,840	61,400
48	53-7051	Industrial truck and tractor operators	Warehousing and storage; wholesalers; general freight trucking; agriculture; state government; fruit, vegetable and specialty foods manufacturing; beverage and tobacco product manufacturing; converted paper product manufacturing; nonmetallic mineral product manufacturing; plastics product manufacturing; management of companies; dairy product manufacturing.	19,460	31,610
49	43-3021	Billing and posting clerks and machine operators	Offices of physicians; accounting and bookkeeping services; management of companies; hospitals; offices of dentists; wholesalers; offices of other health practitioners; legal services; medical and diagnostic laboratories; office administrative services; insurance carriers; insurance agencies; local government; electronic markets; outpatient care centers; medical equipment and supplies manufacturing.	18,910	32,570
50	37-3011	Landscaping and grounds-keeping workers	Services to buildings and dwellings; local government; other amusement and recreation industries; elementary and secondary schools; lessors of real estate; state government; activities related to real estate; architectural and engineering services; colleges and universities; professional organizations; management and technical consulting services; death care services; religious organizations.	18,890	24,740

Source: BLS

## Professional, Scientific and Technical Services

NAICS 541

### Employment



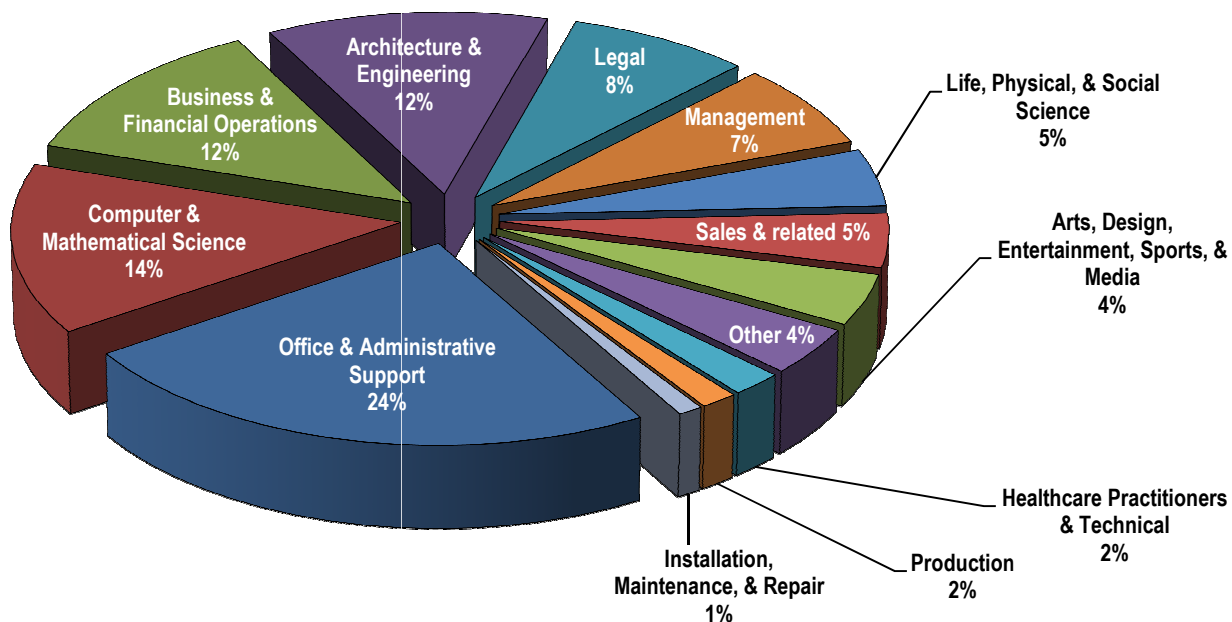
**LA County 270,697 Jobs**  
**SELACO 5,204 Jobs**

### Average Annual Wage



**LA County \$81,244**

### Major Group Occupations



Sources: CA EDD; BLS; LAEDC

## Detailed Occupations

Office and administrative support occupations		Education/Training	Annual Median Wage	Total Employment in LAC
43-1011	First-line supervisors/managers of office and administrative support workers	Work Experience	\$50,560	52,680
43-3031	Bookkeeping, accounting, and auditing clerks	Moderate-Term On-the-Job Training	36,410	57,780
43-4051	Customer service representatives	Moderate-Term On-the-Job Training	32,800	60,720
43-4171	Receptionists and information clerks	Short-Term On-the-Job Training	25,950	30,890
43-6011	Executive secretaries and administrative assistants	Moderate-Term On-the-Job Training	43,240	65,830
43-6012	Legal secretaries	Post-Secondary Vocational Education	49,240	11,460
43-6014	Secretaries, except legal, medical, and executive	Moderate-Term On-the-Job Training	33,130	30,920
43-9061	Office clerks, general	Short-Term On-the-Job Training	26,440	118,720
Computer and mathematical science occupations		Education/Training	Annual Median Wage	Total Employment in LAC
15-1021	Computer programmers	Bachelor's Degree	\$77,430	7,720
15-1031	Computer software engineers, applications	Bachelor's Degree	\$87,520	13,610
15-1032	Computer software engineers, systems software	Bachelor's Degree	\$97,560	13,710
15-1041	Computer support specialists	Associate Degree	\$44,090	15,200
15-1051	Computer systems analysts	Bachelor's Degree	\$77,960	11,660
15-1071	Network and computer systems administrators	Bachelor's Degree	\$69,890	8,240
Business and financial operations occupations		Education/Training	Annual Median Wage	Total Employment in LAC
13-1111	Management analysts	Work Experience, Plus a Bachelor's or Higher	\$76,370	18,590
13-1199	Business operations specialists, all other	Bachelor's Degree	\$64,420	42,470
13-2011	Accountants and auditors	Bachelor's Degree	\$64,050	42,190
Architecture and engineering occupations		Education/Training	Annual Median Wage	Total Employment in LAC
17-1011	Architects, except landscape and naval	Bachelor's Degree	\$83,000	3,010
17-2051	Civil engineers	Bachelor's Degree	\$83,770	7,900
17-3011	Architectural and civil drafters	Post-Secondary Vocational Education	\$52,870	5,060
Legal occupations		Education/Training	Annual Median Wage	Total Employment in LAC
23-1011	Lawyers	First Professional Degree	\$137,380	23,900
23-2011	Paralegals and legal assistants	Associate Degree	\$54,810	8,580

## Ambulatory Health Care Services

NAICS 621

### Employment



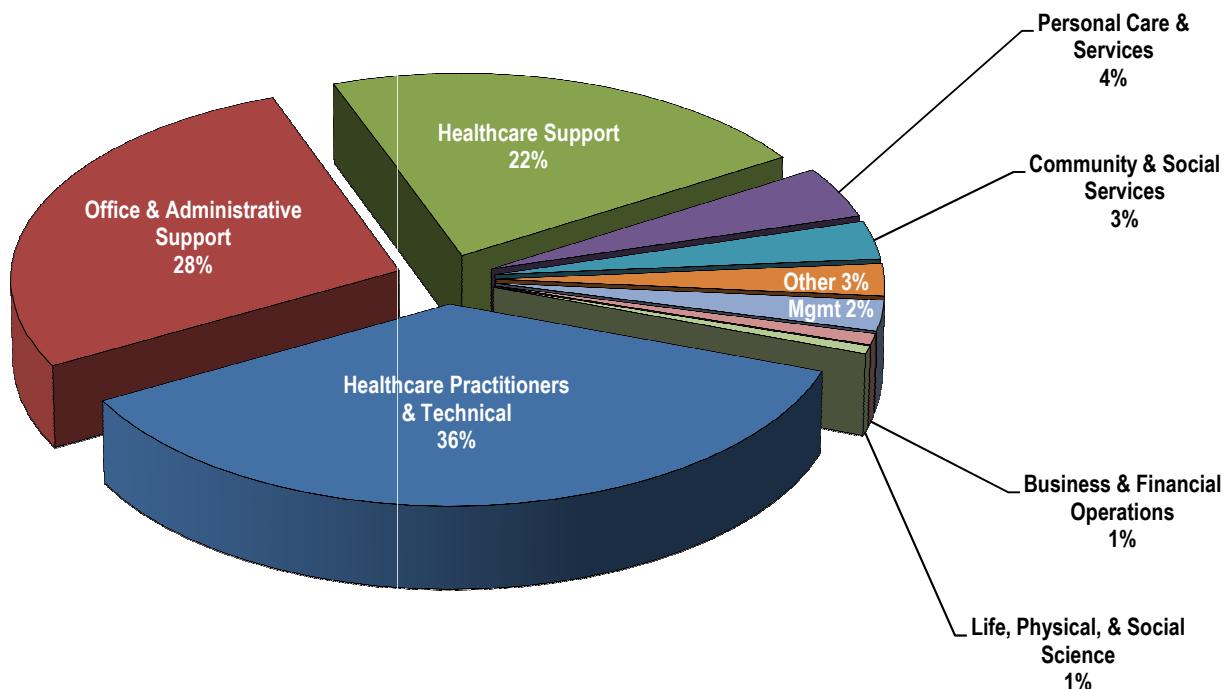
LA County 166,003 Jobs  
SELACO 8,502 Jobs

### Average Annual Wage



LA County \$52,682

### Major Group Occupations



Sources: CA EDD; BLS; LAEDC

## Detailed Occupations

Healthcare practitioners and technical occupations		Education/Training	Annual Median Wage	Total Employment in LAC
29-1021	Dentists, general	First Professional Degree	\$108,890	3,440
29-1062	Family and general practitioners	First Professional Degree	113,300	3,650
29-1069	Physicians and surgeons, all other	First Professional Degree	-	6,650
29-1111	Registered nurses	Associates Degree	79,240	63,650
29-1123	Physical therapists	Master's Degree	77,440	4,130
29-2012	Medical and clinical laboratory technicians	Associate Degree	36,410	4,760
29-2021	Dental hygienists	Associate Degree	82,990	3,840
29-2034	Radiologic technologists and technicians	Associate Degree	59,080	4,070
29-2041	Emergency medical technicians and paramedics	Post-Secondary Vocational Education	25,830	3,010
29-2061	Licensed practical and licensed vocational nurses	Post-Secondary Vocational Education	45,770	20,720
29-2071	Medical records and health information technicians	Associates Degree	32,910	4,280
Office and administrative support occupations		Education/Training	Annual Median Wage	Total Employment in LAC
43-1011	First-line supervisors/managers of office and administrative support workers	Work Experience	\$50,560	52,680
43-3021	Billing and posting clerks and machine operators	Moderate-Term On-the-Job Training	50,410	6,670
43-3031	Bookkeeping, accounting, and auditing clerks	Moderate-Term On-the-Job Training	36,410	57,780
43-4171	Receptionists and information clerks	Short-Term On-the-Job Training	25,950	30,890
43-6011	Executive secretaries and administrative assistants	Moderate-Term On-the-Job Training	43,240	65,830
43-6013	Medical secretaries	Post-Secondary Vocational Education	29,890	22,730
43-6014	Secretaries, except legal, medical, and executive	Moderate-Term On-the-Job Training	33,130	30,920
43-9061	Office clerks, general	Short-Term On-the-Job Training	26,440	118,720
Healthcare support occupations		Education/Training	Annual Median Wage	Total Employment in LAC
31-1011	Home health aides	Short-Term On-the-Job Training	\$20,410	12,000
31-1012	Nursing aides, orderlies, and attendants	Short-Term On-the-Job Training	24,060	30,840
31-9091	Dental assistants	Moderate-Term On-the-Job Training	29,030	11,340
31-9092	Medical assistants	Moderate-Term On-the-Job Training	29,600	20,760

## Hospitals

NAICS 622

### Employment



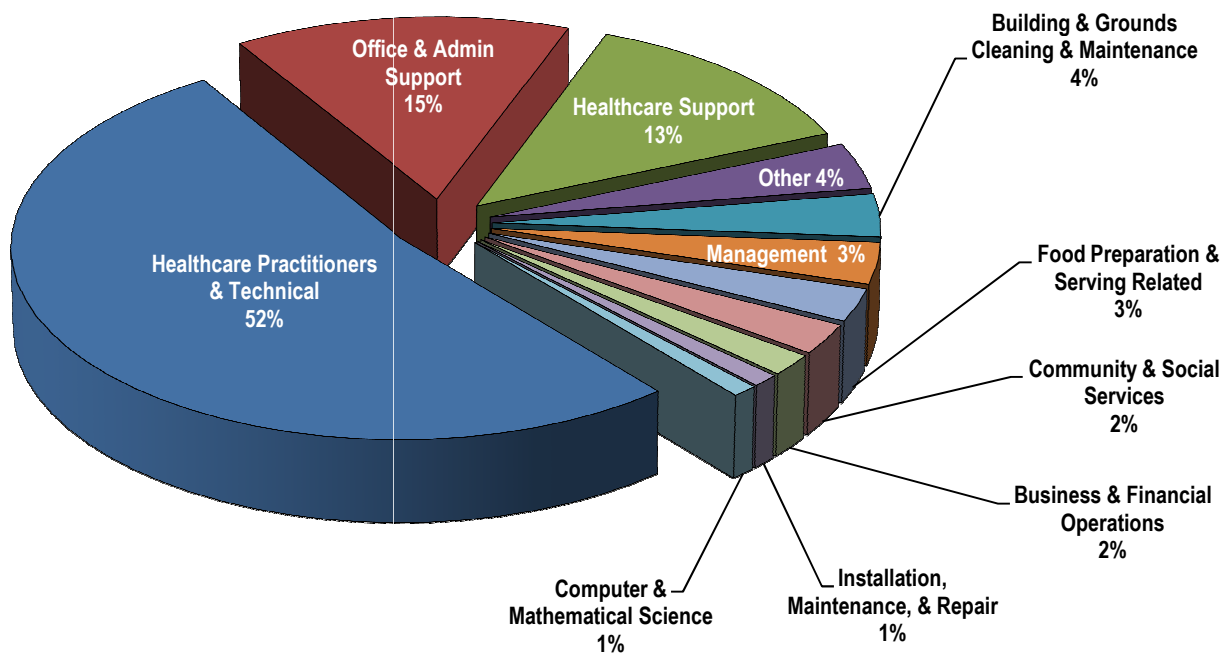
LA County 107,613 Jobs  
SELACO 5,812 Jobs

### Average Annual Wage



LA County \$61,341

### Major Group Occupations



Sources: CA EDD; BLS; LAEDC

## Detailed Occupations

Healthcare practitioners and technical occupations		Education/Training	Annual Median Wage	Total Employment in LAC
29-1051	Pharmacists	First Professional Degree	\$119,430	6,930
29-1069	Physicians & surgeons, all other	First Professional Degree	-	6,650
29-1111	Registered nurses	Associates Degree	79,240	63,650
29-1123	Physical therapists	Master's Degree	77,440	4,130
29-1126	Respiratory therapists	Associates Degree	64,210	3,580
29-2011	Medical & clinical laboratory technologists	Bachelor's Degree	73,720	4,960
29-2012	Medical & clinical laboratory technicians	Associate Degree	36,410	4,760
29-2034	Radiologic technologists & technicians	Associate Degree	59,080	4,070
29-2052	Pharmacy technicians	Moderate-Term On-the-Job Training	34,860	6,780
29-2055	Surgical technologists	Post-Secondary Vocational Education	44,900	2,450
29-2061	Licensed practical & licensed vocational nurses	Post-Secondary Vocational Education	45,770	20,720
29-2071	Medical records & health information technicians	Associate Degree	32,910	4,280
Office and administrative support occupations		Education/Training	Annual Median Wage	Total Employment in LAC
43-4111	Interviewers, except eligibility & loan	Short-Term On-the-Job Training	\$29,170	9,620
43-6013	Medical secretaries	Post-Secondary Vocational Education	29,890	22,730
43-6014	Secretaries, except legal, medical, & executive	Moderate-Term On-the-Job Training	33,130	30,920
43-9061	Office clerks, general	Short-Term On-the-Job Training	26,440	118,720
Healthcare support occupations		Education/Training	Annual Median Wage	Total Employment in LAC
31-1012	Nursing aides, orderlies, & attendants	Short-Term On-the-Job Training	\$24,060	30,840
31-9092	Medical assistants	Moderate-Term On-the-Job Training	29,600	20,760



## Nursing and Residential Care Facilities

NAICS 623

### Employment



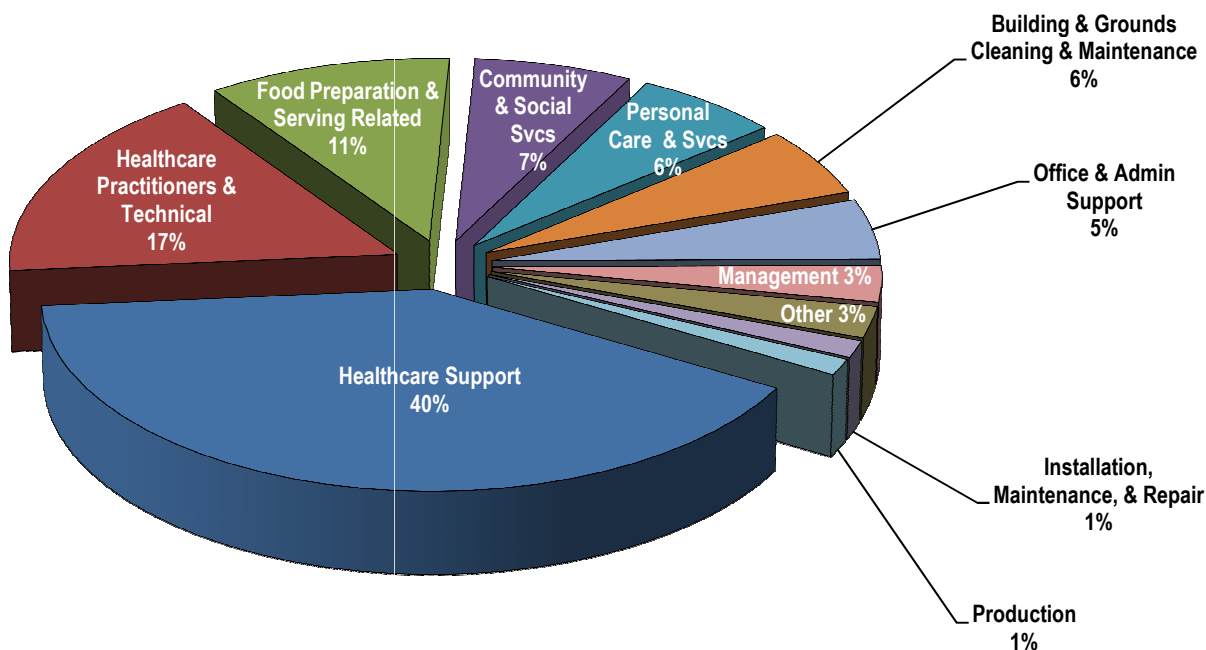
**LA County 64,291 Jobs**  
**SELACO 3,341 Jobs**

### Average Annual Wage



**LA County \$28,465**

### Major Group Occupations



Sources: CA EDD; BLS; LAEDC

## Detailed Occupations

Healthcare support occupations		Education/Training	Annual Median Wage	Total Employment in LAC
31-1011	Home health aides	Short-Term On-the-Job Training	\$20,410	12,000
31-1012	Nursing aides, orderlies, & attendants	Moderate-Term On-the-Job Training	29,600	20,760
Healthcare practitioners and technical occupations		Education/Training	Annual Median Wage	Total Employment in LAC
29-1111	Registered nurses	Associates Degree	\$79,240	63,650
29-2061	Licensed practical & licensed vocational nurses	Post-Secondary Vocational Education	45,770	20,720
Food preparation and serving related occupations		Education/Training	Annual Median Wage	Total Employment in LAC
35-2012	Cooks, institution & cafeteria	Moderate-Term On-the-Job Training	\$25,200	5,580
35-2021	Food preparation workers	Short-Term On-the-Job Training	18,790	28,430
35-3021	Combined food preparation & serving workers, including fast food	Short-Term On-the-Job Training	18,050	59,820
35-3041	Food servers, nonrestaurant	Short-Term On-the-Job Training	20,990	3,200
Community and social services occupations		Education/Training	Annual Median Wage	Total Employment in LAC
21-1093	Social & human service assistants	Moderate-Term On-the-Job Training	\$31,510	6,690
Personal care and service occupations		Education/Training	Annual Median Wage	Total Employment in LAC
39-9011	Child care workers	Short-Term On-the-Job Training	\$20,570	14,470
39-9032	Recreation workers	Bachelor's Degree	23,160	9,320
Building and grounds cleaning and maintenance occupations		Education/Training	Annual Median Wage	Total Employment in LAC
37-2011	Janitors & cleaners, except maids & housekeeping cleaners	Short-Term On-the-Job Training	\$21,970	54,000
37-2012	Maids & housekeeping cleaners	Short-Term On-the-Job Training	21,060	21,400

## Educational Services

NAICS 611

### Employment



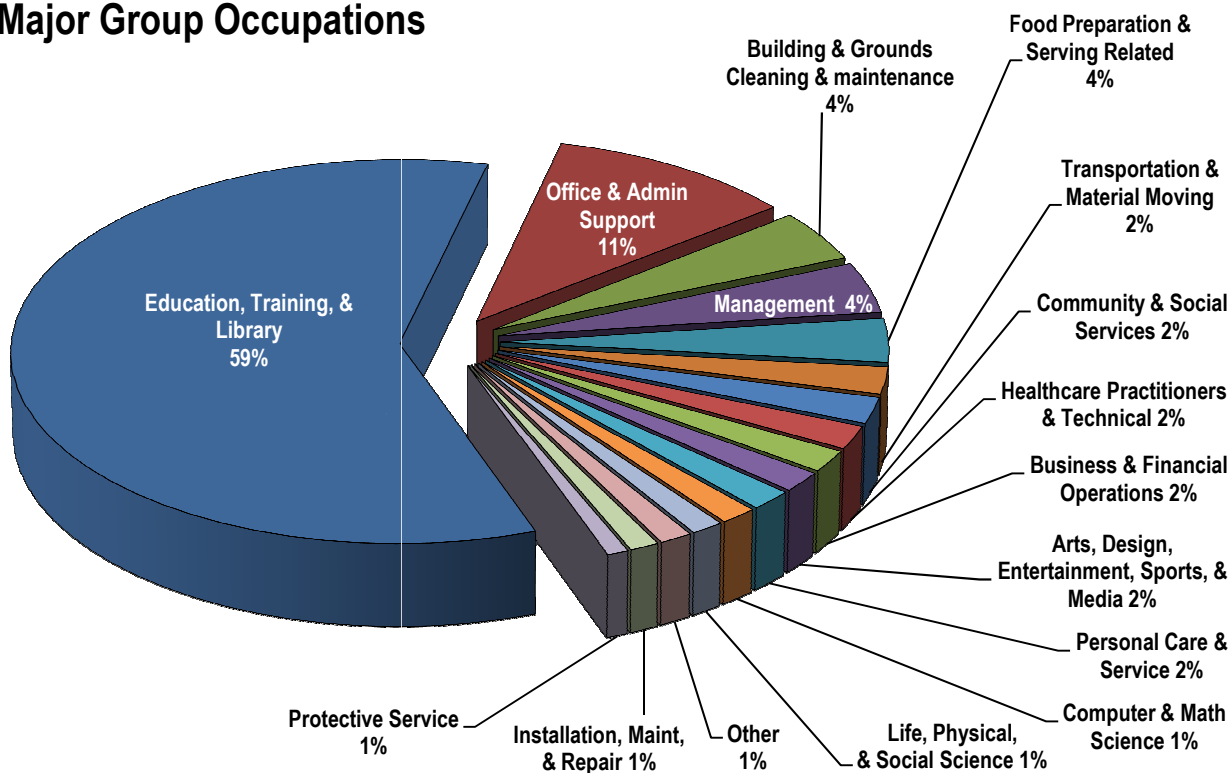
**LA County 94,825 Jobs**  
**SELACO 967 Jobs**

### Average Annual Wage



**LA County \$41,408**

### Major Group Occupations



Sources: CA EDD; BLS; LAEDC

## Detailed Occupations

Education, training and library occupations		Education/Training	Annual Median Wage	Total Employment in LAC
25-1191	Graduate teaching assistants	Bachelor's Degree	\$28,990	4,070
25-1199	Postsecondary teachers, all other	Master's Degree	61,400	19,840
25-2012	Kindergarten teachers, except special education	Bachelor's Degree	53,160	6,110
25-2021	Elementary school teachers, except special education	Bachelor's Degree	57,310	53,670
25-2022	Middle school teachers, except special and vocational education	Bachelor's Degree	58,140	9,260
25-2031	Secondary school teachers, except special and vocational education	Bachelor's Degree	64,230	36,360
25-2041	Special education teachers, preschool, kindergarten, and elementary school	Bachelor's Degree	61,200	6,390
25-2043	Special education teachers, secondary school	Bachelor's Degree	67,230	3,570
25-3099	Teachers and instructors, all other	Bachelor's Degree	45,960	13,580
25-9041	Teacher assistants	Short-Term On-the-Job Training	28,030	48,600
Office and administrative support occupations		Education/Training	Annual Median Wage	Total Employment in LAC
43-6011	Executive secretaries and administrative assistants	Moderate-Term On-the-Job Training	\$43,240	65,830
43-6014	Secretaries, except legal, medical, and executive	Moderate-Term On-the-Job Training	\$33,130	30,920
43-9061	Office clerks, general	Short-Term On-the-Job Training	\$26,440	118,720

## Fabricated Metal Product Manufacturing

NAICS 332

### Employment



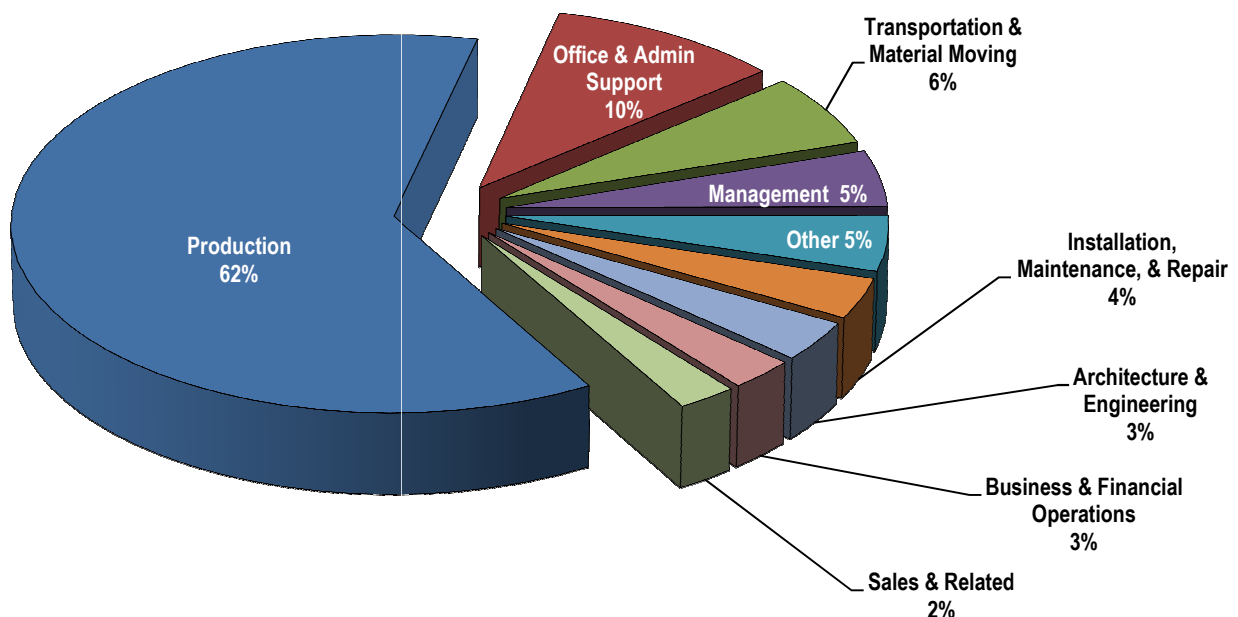
**LA County 48,910 Jobs**  
**SELACO 905 Jobs**

### Average Annual Wage



**LA County \$48,825**

### Major Group Occupations



Sources: CA EDD; BLS; LAEDC

## Detailed Occupations

Production occupations		Education/Training	Annual Median Wage	Total Employment in LAC
51-1011	First-line supervisors/managers of production & operating workers	Work Experience	\$49,400	18,810
51-2041	Structural metal fabricators & fitters	Moderate-Term On-the-Job Training	33,980	1,810
51-2092	Team assemblers	Moderate-Term On-the-Job Training	21,280	22,880
51-2099	Assemblers & fabricators, all other	Moderate-Term On-the-Job Training	23,030	7,030
51-4011	Computer-controlled machine tool operators, metal & plastic	Moderate-Term On-the-Job Training	29,850	3,820
51-4031	Cutting, punching, & press machine setters, operators, & tenders, metal & plastic	Moderate-Term On-the-Job Training	25,390	7,130
51-4033	Grind, lapp, polish, & buff mach tool setters, operators, & tenders, metal & plastic	Moderate-Term On-the-Job Training	25,690	4,070
51-4034	Lathe & turning machine tool setters, operators, & tenders, metal & plastic	Moderate-Term On-the-Job Training	30,080	2,230
51-4041	Machinists	Long-Term On-the-Job Training	33,120	10,890
51-4081	Multiple machine tool setters, operators, & tenders, metal & plastic	Moderate-Term On-the-Job Training	30,820	1,210
51-4111	Tool & die makers	Long-Term On-the-Job Training	48,190	1,580
51-4121	Welders, cutters, solderers, & brazers	Post-Secondary Vocational Education	29,880	7,740
51-4193	Plating & coating machine setters, operators, & tenders, metal & plastic	Moderate-Term On-the-Job Training	23,960	1,950
51-9061	Inspectors, testers, sorters, samplers, & weighers	Moderate-Term On-the-Job Training	29,320	15,200
51-9121	Coating, painting, & spraying machine setters, operators, & tenders	Moderate-Term On-the-Job Training	23,670	2,670
51-9198	Helpers--production workers	Short-Term On-the-Job Training	19,900	14,600
Office and administrative support occupations		Education/Training	Annual Median Wage	Total Employment in LAC
43-3031	Bookkeeping, accounting, & auditing clerks	Moderate-Term On-the-Job Training	\$36,410	57,780
43-5071	Shipping, receiving, & traffic clerks	Short-Term On-the-Job Training	\$26,790	34,360
43-9061	Office clerks, general	Short-Term On-the-Job Training	26,440	118,720
Transportation and material moving occupations		Education/Training	Annual Median Wage	Total Employment in LAC
53-7051	Industrial truck & tractor operators	Short-Term On-the-Job Training	\$31,610	19,460
53-7062	Laborers & freight, stock, & material movers, h&	Short-Term On-the-Job Training	\$22,100	84,090
53-7064	Packers & packagers, h&	Short-Term On-the-Job Training	18,480	34,300
Management occupations		Education/Training	Annual Median Wage	Total Employment in LAC
11-3051	Industrial production managers	Bachelor's Degree	\$84,900	5,350
11-1021	General & operations managers	Work Experience, Plus a Bachelor's or Higher	\$107,470	68,770

## Machinery Manufacturing

NAICS 333

### Employment



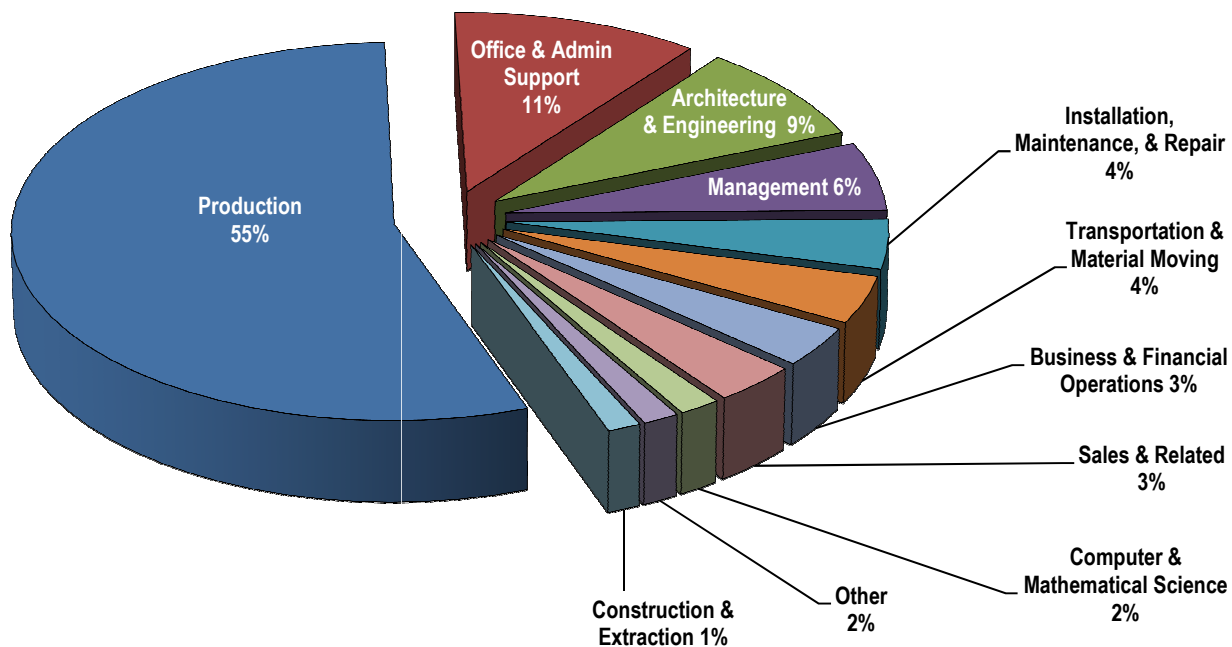
LA County 18,573 Jobs  
SELACO 876 Jobs

### Average Annual Wage



LA County \$58,570

### Major Group Occupations



Sources: CA EDD; BLS; LAEDC



## Detailed Occupations

Production occupations		Education/Training	Annual Median Wage	Total Employment in LAC
51-1011	First-line supervisors/managers of production & operating workers	Work Experience	\$49,400	18,810
51-2022	Electrical & electronic equipment assemblers	Short-Term On-the-Job Training	23,160	5,750
51-2023	Electromechanical equipment assemblers	Short-Term On-the-Job Training	24,410	2,330
51-2031	Engine & other machine assemblers	Short-Term On-the-Job Training	25,500	410
51-2041	Structural metal fabricators & fitters	Moderate-Term On-the-Job Training	33,980	1,810
51-2092	Team assemblers	Moderate-Term On-the-Job Training	21,280	22,880
51-2099	Assemblers & fabricators, all other	Moderate-Term On-the-Job Training	23,030	7,030
51-4011	Computer-controlled machine tool operators, metal & plastic	Moderate-Term On-the-Job Training	29,850	3,820
51-4031	Cutting, punching, & press machine setters, operators, & tenders, metal & plastic	Moderate-Term On-the-Job Training	25,390	7,130
51-4033	Grind, lapp, polish, & buff machine tool setters, operators, & tenders, metal & plastic	Moderate-Term On-the-Job Training	25,690	4,070
51-4034	Lathe & turning machine tool setters, operators, & tenders, metal & plastic	Moderate-Term On-the-Job Training	30,080	2,230
51-4041	Machinists	Long-Term On-the-Job Training	33,120	10,890
51-4072	Molding, coremaking, & cast machine setters, operators, & tenders, metal & plastic	Moderate-Term On-the-Job Training	20,780	3,010
51-4081	Multiple machine tool setters, operators, & tenders, metal & plastic	Moderate-Term On-the-Job Training	30,820	1,210
51-4111	Tool & die makers	Long-Term On-the-Job Training	48,190	1,580
51-4121	Welders, cutters, solderers, & brazers	Post-Secondary Vocational Education	29,880	7,740
51-9061	Inspectors, testers, sorters, samplers, & weighers	Moderate-Term On-the-Job Training	29,320	15,200
51-9121	Coating, painting, & spraying machine setters, operators, & tenders	Moderate-Term On-the-Job Training	23,670	2,670
51-9198	Helpers--production workers	Short-Term On-the-Job Training	19,900	14,600
Office and administrative support occupations		Education/Training	Annual Median Wage	Total Employment in LAC
43-3031	Bookkeeping, accounting, & auditing clerks	Moderate-Term On-the-Job Training	\$36,410	57,780
43-4051	Customer service representatives	Moderate-Term On-the-Job Training	\$32,800	60,720
43-5061	Production, planning, & expediting clerks	Short-Term On-the-Job Training	\$43,960	14,380
43-5071	Shipping, receiving, & traffic clerks	Short-Term On-the-Job Training	\$26,790	34,360
43-9061	Office clerks, general	Short-Term On-the-Job Training	26,440	118,720
Architecture and engineering occupations		Education/Training	Annual Median Wage	Total Employment in LAC
17-2112	Industrial engineers	Bachelor's Degree	\$79,720	5,790
17-2141	Mechanical engineers	Bachelor's Degree	\$87,600	5,550
17-3013	Mechanical drafters	Post-Secondary Vocational Education	49,890	980



## Computer and Electronic Product Manufacturing

NAICS 334

### Employment



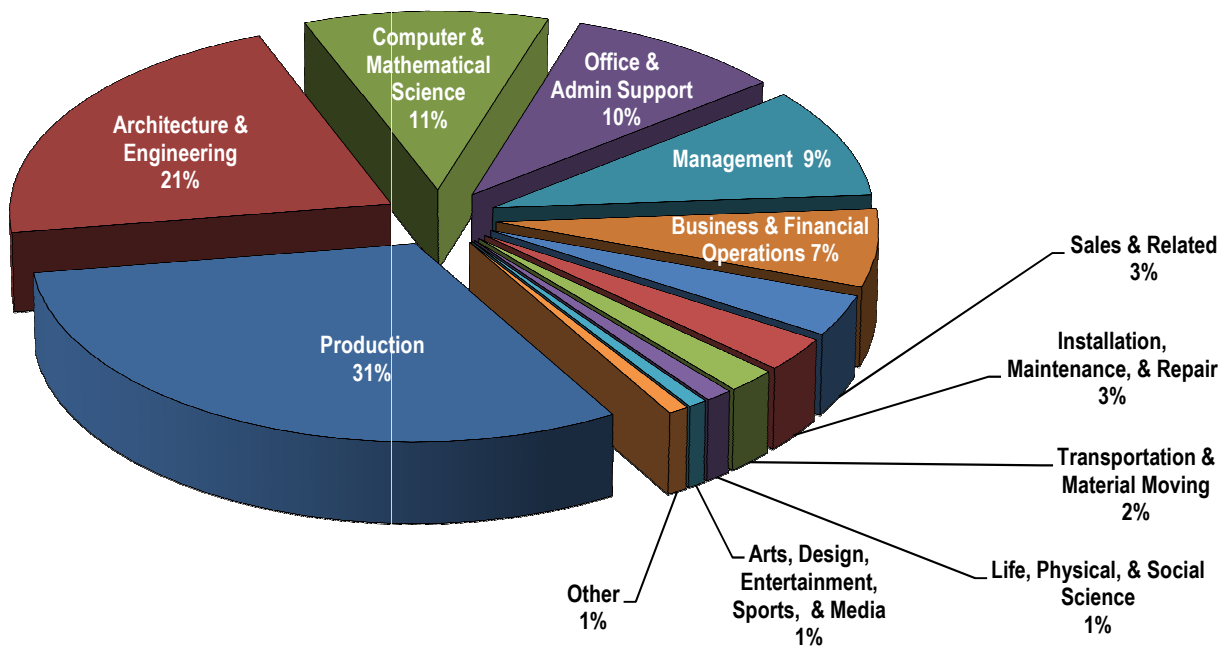
LA County 54,139 Jobs  
SELACO 210 Jobs

### Average Annual Wage



LA County \$86,969

### Major Group Occupations



Sources: CA EDD; BLS; LAEDC

## Detailed Occupations

Production occupations		Education/Training	Annual Median Wage	Total Employment in LAC
51-1011	First-line supervisors/managers of production & operating workers	Work Experience	\$49,400	18,810
51-2022	Electrical & electronic equipment assemblers	Short-Term On-the-Job Training	23,160	5,750
51-2023	Electromechanical equipment assemblers	Short-Term On-the-Job Training	24,410	2,330
51-2092	Team assemblers	Moderate-Term On-the-Job Training	21,280	22,880
51-4041	Machinists	Long-Term On-the-Job Training	33,120	10,890
51-9061	Inspectors, testers, sorters, samplers, & weighers	Moderate-Term On-the-Job Training	29,320	15,200
51-9141	Semiconductor processors	Associate Degree	31,960	550
Architecture and engineering occupations		Education/Training	Annual Median Wage	Total Employment in LAC
17-2061	Computer hardware engineers	Bachelor's Degree	\$101,270	1,350
17-2071	Electrical engineers	Bachelor's Degree	\$88,810	4,460
17-2072	Electronics engineers, except computer	Bachelor's Degree	\$94,760	6,010
17-2112	Industrial engineers	Bachelor's Degree	\$79,720	5,790
17-2141	Mechanical engineers	Bachelor's Degree	\$87,600	5,550
17-2199	Engineers, all other	Bachelor's Degree	98,480	11,720
17-3023	Electrical & electronic engineering technicians	Associate Degree	\$55,180	4,190
17-3026	Industrial engineering technicians	Associate Degree	42,900	1,110
Computer and mathematical science occupations		Education/Training	Annual Median Wage	Total Employment in LAC
15-1031	Computer software engineers, applications	Bachelor's Degree	\$87,520	13,610
15-1032	Computer software engineers, systems software	Bachelor's Degree	\$97,560	13,710
15-1041	Computer support specialists	Associate Degree	\$44,090	15,200
15-1051	Computer systems analysts	Bachelor's Degree	77,960	11,660
Office and administrative support occupations		Education/Training	Annual Median Wage	Total Employment in LAC
43-4051	Customer service representatives	Moderate-Term On-the-Job Training	\$32,800	60,720
43-5061	Production, planning, & expediting clerks	Short-Term On-the-Job Training	\$43,960	14,380
43-5071	Shipping, receiving, & traffic clerks	Short-Term On-the-Job Training	\$26,790	34,360
43-6011	Executive secretaries & administrative assistants	Moderate-Term On-the-Job Training	\$43,240	65,830

## Beverage and Tobacco Product Manufacturing

NAICS 312

### Employment



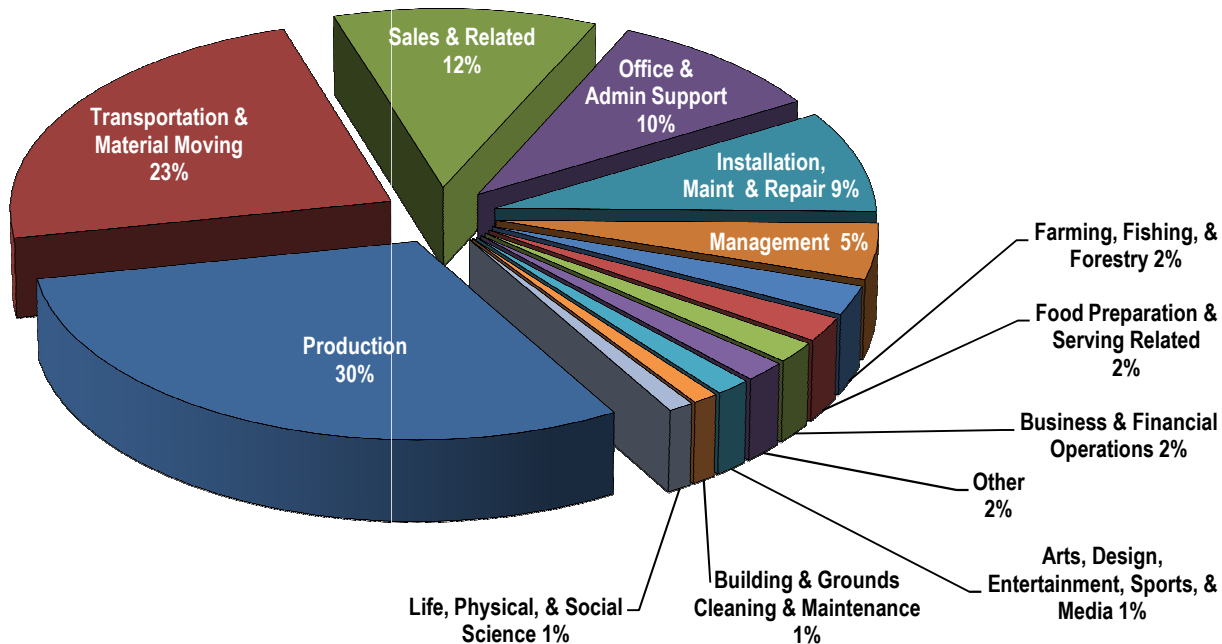
**LA County 5,380 Jobs**  
**SELACO 1,000 Jobs**

### Average Annual Wage



**LA County \$60,346**

### Major Group Occupations



Sources: CA EDD; BLS; LAEDC

## Detailed Occupations

Production occupations		Education/Training	Annual Median Wage	Total Employment in LAC
51-1011	First-line supervisors/managers of production & operating workers	Work Experience	\$49,400	18,810
51-9012	Separating, filtering, clarifying, precipitating, & still machine setters, operators, & tenders	Moderate-Term On-the-Job Training	50,250	900
51-9023	Mixing & blending machine setters, operators, & tenders	Moderate-Term On-the-Job Training	27,570	4,950
51-9061	Inspectors, testers, sorters, samplers, & weighers	Moderate-Term On-the-Job Training	29,320	15,200
51-9111	Packaging & filling machine operators & tenders	Short-Term On-the-Job Training	20,500	13,190
51-9198	Helpers--production workers	Short-Term On-the-Job Training	19,900	14,600
Transportation and material moving occupations		Education/Training	Annual Median Wage	Total Employment in LAC
53-3031	Driver/sales workers	Short-Term On-the-Job Training	\$21,210	8,900
53-3032	Truck drivers, heavy & tractor-trailer	Moderate-Term On-the-Job Training	\$39,620	30,400
53-3033	Truck drivers, light or delivery services	Short-Term On-the-Job Training	28,490	29,220
53-7051	Industrial truck & tractor operators	Short-Term On-the-Job Training	31,610	19,460
53-7062	Laborers & freight, stock, & material movers, h&	Short-Term On-the-Job Training	22,100	84,090
Sales and related occupations		Education/Training	Annual Median Wage	Total Employment in LAC
41-2031	Retail salespersons	Short-Term On-the-Job Training	\$20,690	126,030
41-4012	Sales representatives, wholesale & manufacturing, except technical & scientific products	Moderate-Term On-the-Job Training	52,800	47,490
Office and administrative support occupations		Education/Training	Annual Median Wage	Total Employment in LAC
43-3031	Bookkeeping, accounting, & auditing clerks	Moderate-Term On-the-Job Training	\$36,410	57,780
43-4051	Customer service representatives	Moderate-Term On-the-Job Training	\$32,800	60,720
43-5071	Shipping, receiving, & traffic clerks	Short-Term On-the-Job Training	26,790	34,360
43-5081	Stock clerks & order fillers	Short-Term On-the-Job Training	20,970	56,740
43-9061	Office clerks, general	Short-Term On-the-Job Training	26,440	118,720
Installation, maintenance and repair occupations		Education/Training	Annual Median Wage	Total Employment in LAC
49-9041	Industrial machinery mechanics	Long-Term On-the-Job Training	\$48,120	3,870
49-9042	Maintenance & repair workers, general	Long-Term On-the-Job Training	\$36,690	32,020
49-9091	Coin, vending, & amusement machine servicers & repairers	Moderate-Term On-the-Job Training	26,260	570

## Durable Goods Wholesaling

NAICS 423

### Employment



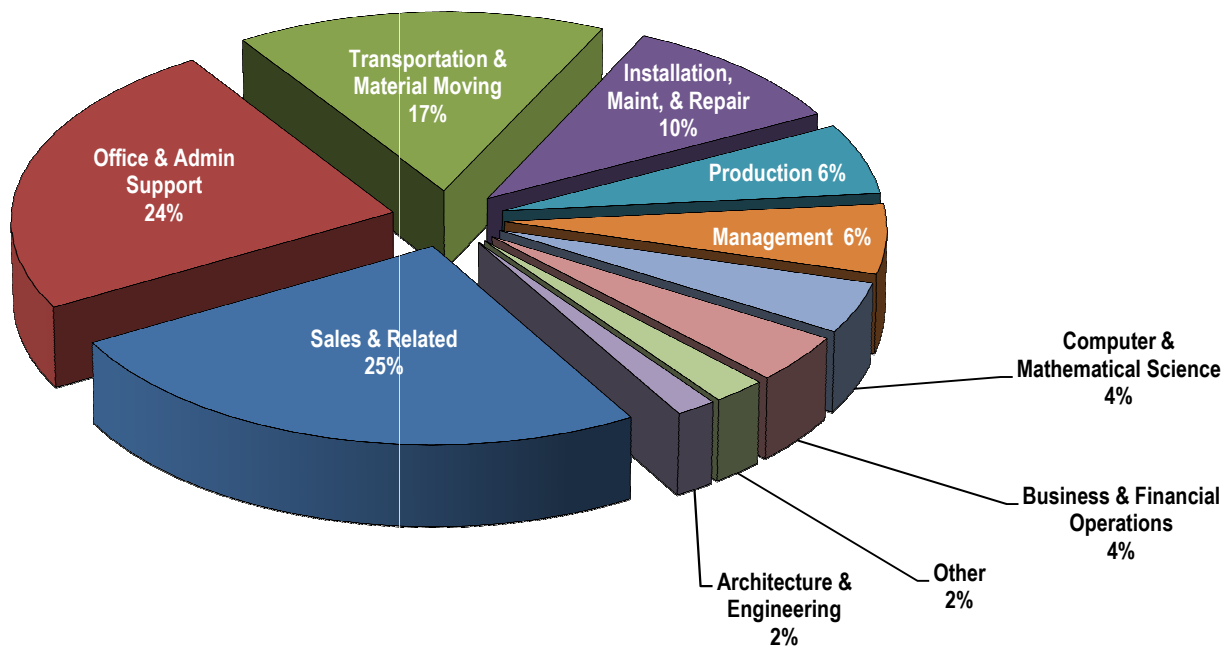
**LA County 105,581 Jobs**  
**SELACO 4,601 Jobs**

### Average Annual Wage



**LA County \$58,749**

### Major Group Occupations



Sources: CA EDD; BLS; LAEDC

## Detailed Occupations

Sales and related occupations		Education/Training	Annual Median Wage	Total Employment in LAC
41-1012	First-line supervisors/managers of non-retail sales workers	Work Experience	\$67,810	8,270
41-2022	Parts salespersons	Moderate-Term On-the-Job Training	29,620	5,260
41-2031	Retail salespersons	Short-Term On-the-Job Training	20,690	126,030
41-4011	Sales representatives, wholesale & manufacturing, technical & scientific products	Moderate-Term On-the-Job Training	68,030	10,890
41-4012	Sales representatives, wholesale & manufacturing, except technical & scientific products	Moderate-Term On-the-Job Training	52,800	47,490
Office and administrative support occupations		Education/Training	Annual Median Wage	Total Employment in LAC
43-1011	First-line supervisors/managers of office & administrative support workers	Work Experience	\$50,560	52,680
43-3031	Bookkeeping, accounting, & auditing clerks	Moderate-Term On-the-Job Training	\$36,410	57,780
43-4051	Customer service representatives	Moderate-Term On-the-Job Training	\$32,800	60,720
43-4151	Order clerks	Short-Term On-the-Job Training	\$27,740	12,950
43-5071	Shipping, receiving, & traffic clerks	Short-Term On-the-Job Training	\$26,790	34,360
43-5081	Stock clerks & order fillers	Short-Term On-the-Job Training	\$20,970	56,740
43-6011	Executive secretaries & administrative assistants	Moderate-Term On-the-Job Training	\$43,240	65,830
43-6014	Secretaries, except legal, medical, & executive	Moderate-Term On-the-Job Training	\$33,130	30,920
43-9061	Office clerks, general	Short-Term On-the-Job Training	26,440	118,720
Transportation and material moving occupations		Education/Training	Annual Median Wage	Total Employment in LAC
53-3032	Truck drivers, heavy & tractor-trailer	Moderate-Term On-the-Job Training	\$39,620	30,400
53-3033	Truck drivers, light or delivery services	Short-Term On-the-Job Training	\$28,490	29,220
53-7051	Industrial truck & tractor operators	Short-Term On-the-Job Training	\$31,610	19,460
53-7062	Laborers & freight, stock, & material movers, h&	Short-Term On-the-Job Training	22,100	84,090
Installation, maintenance and repair occupations		Education/Training	Annual Median Wage	Total Employment in LAC
49-2011	Computer, automated teller, & office machine repairers	Post-Secondary Vocational Education	\$35,280	3,300
49-3031	Bus & truck mechanics & diesel engine specialists	Post-Secondary Vocational Education	\$46,290	5,590
49-3042	Mobile heavy equipment mechanics, except engines	Post-Secondary Vocational Education	\$64,180	3,440



## Nondurable Goods Wholesaling

NAICS 424

### Employment



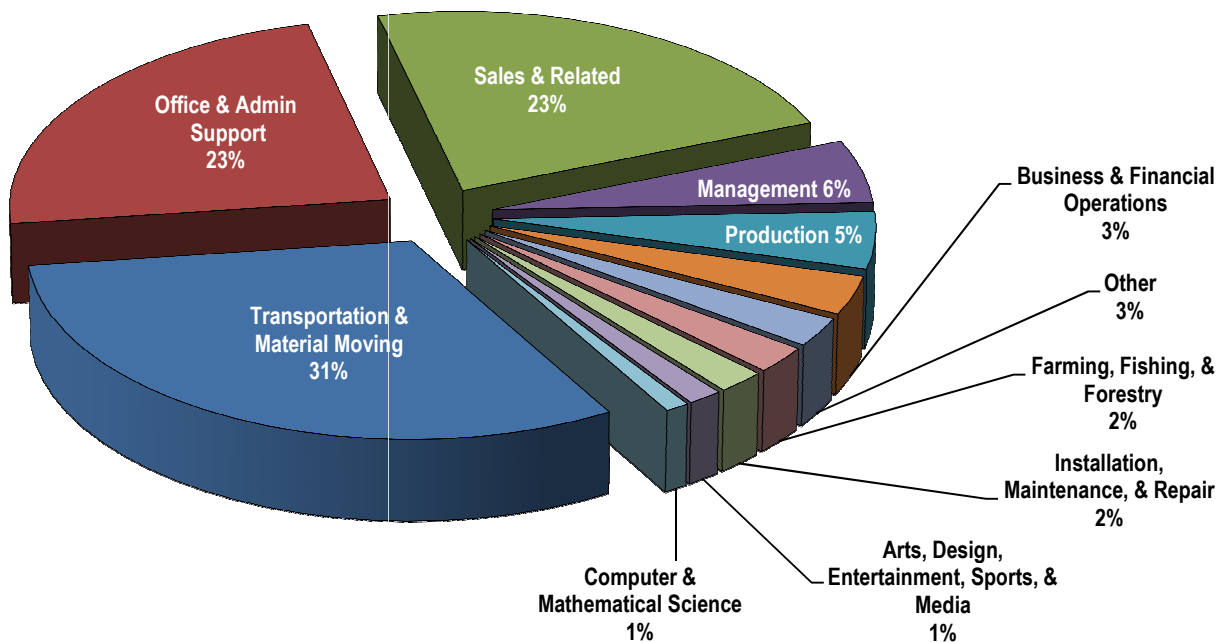
**LA County 91,163 Jobs**  
**SELACO 1,441 Jobs**

### Average Annual Wage



**LA County \$47,997**

### Major Group Occupations



Sources: CA EDD; BLS; LAEDC

## Detailed Occupations

Transportation and material moving occupations		Education/Training	Annual Median Wage	Total Employment in LAC
53-3031	Driver/sales workers	Short-Term On-the-Job Training	\$21,210	8,900
53-3032	Truck drivers, heavy & tractor-trailer	Moderate-Term On-the-Job Training	39,620	30,400
53-3033	Truck drivers, light or delivery services	Short-Term On-the-Job Training	28,490	29,220
53-7051	Industrial truck & tractor operators	Short-Term On-the-Job Training	31,610	19,460
53-7062	Laborers & freight, stock, & material movers, h&	Short-Term On-the-Job Training	22,100	84,090
53-7064	Packers & packagers, h&	Short-Term On-the-Job Training	18,480	34,300
Office and administrative support occupations		Education/Training	Annual Median Wage	Total Employment in LAC
43-1011	First-line supervisors/managers of office & administrative support workers	Work Experience	\$50,560	52,680
43-3031	Bookkeeping, accounting, & auditing clerks	Moderate-Term On-the-Job Training	\$36,410	57,780
43-4051	Customer service representatives	Moderate-Term On-the-Job Training	\$32,800	60,720
43-4151	Order clerks	Short-Term On-the-Job Training	\$27,740	12,950
43-5071	Shipping, receiving, & traffic clerks	Short-Term On-the-Job Training	\$26,790	34,360
43-5081	Stock clerks & order fillers	Short-Term On-the-Job Training	\$20,970	56,740
43-6014	Secretaries, except legal, medical, & executive	Moderate-Term On-the-Job Training	\$33,130	30,920
43-9061	Office clerks, general	Short-Term On-the-Job Training	\$26,440	118,720
Sales and related occupations		Education/Training	Annual Median Wage	Total Employment in LAC
41-1012	First-line supervisors/managers of non-retail sales workers	Work Experience	\$67,810	8,270
41-2031	Retail salespersons	Short-Term On-the-Job Training	\$20,690	126,030
41-4011	Sales representatives, wholesale & manufacturing, technical & scientific products	Moderate-Term On-the-Job Training	\$68,030	10,890
41-4012	Sales representatives, wholesale & manufacturing, except technical & scientific products	Moderate-Term On-the-Job Training	52,800	47,490
Management occupations		Education/Training	Annual Median Wage	Total Employment in LAC
11-2022	Sales managers	Work Experience, Plus a Bachelor's or Higher	\$102,700	16,100
11-1021	General & operations managers	Work Experience, Plus a Bachelor's or Higher	\$107,470	68,770



## Wholesale Electronic Markets

NAICS 425

### Employment



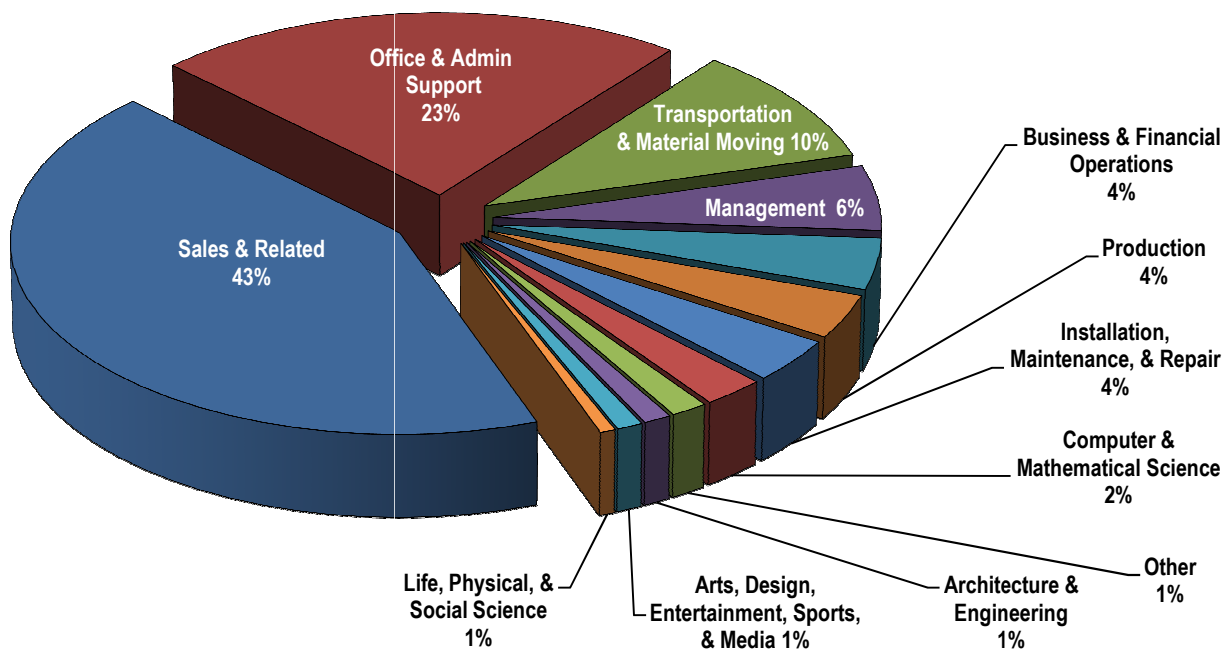
**LA County 26,963 Jobs**  
**SELACO 820 Jobs**

### Average Annual Wage



**LA County \$56,569**

### Major Group Occupations



Sources: CA EDD; BLS; LAEDC

## Detailed Occupations

Sales and related occupations		Education/Training	Annual Median Wage	Total Employment in LAC
41-1012	First-line supervisors/managers of non-retail sales workers	Work Experience	\$67,810	8,270
41-2031	Retail salespersons	Short-Term On-the-Job Training	20,690	126,030
41-4011	Sales representatives, wholesale & manufacturing, technical & scientific products	Moderate-Term On-the-Job Training	68,030	10,890
41-4012	Sales representatives, wholesale & manufacturing, except technical & scientific products	Moderate-Term On-the-Job Training	52,800	47,490
Office and administrative support occupations		Education/Training	Annual Median Wage	Total Employment in LAC
43-1011	First-line supervisors/managers of office & administrative support workers	Work Experience	\$50,560	52,680
43-3031	Bookkeeping, accounting, & auditing clerks	Moderate-Term On-the-Job Training	\$36,410	57,780
43-4051	Customer service representatives	Moderate-Term On-the-Job Training	\$32,800	60,720
43-4151	Order clerks	Short-Term On-the-Job Training	\$27,740	12,950
43-5071	Shipping, receiving, & traffic clerks	Short-Term On-the-Job Training	\$26,790	34,360
43-5081	Stock clerks & order fillers	Short-Term On-the-Job Training	\$20,970	56,740
43-6011	Executive secretaries & administrative assistants	Moderate-Term On-the-Job Training		
43-6014	Secretaries, except legal, medical, & executive	Moderate-Term On-the-Job Training	\$33,130	30,920
43-9061	Office clerks, general	Short-Term On-the-Job Training	\$26,440	118,720
Transportation and material moving occupations		Education/Training	Annual Median Wage	Total Employment in LAC
53-3032	Truck drivers, heavy & tractor-trailer	Moderate-Term On-the-Job Training	\$39,620	30,400
53-3033	Truck drivers, light or delivery services	Short-Term On-the-Job Training	\$28,490	29,220
53-7062	Laborers & freight, stock, & material movers, h&	Short-Term On-the-Job Training	\$22,100	84,090
Management occupations		Education/Training	Annual Median Wage	Total Employment in LAC
11-2022	Sales managers	Work Experience, Plus a Bachelor's or Higher	\$102,700	16,100
11-1021	General & operations managers	Work Experience, Plus a Bachelor's or Higher	\$107,470	68,770

# Motion Picture and Sound Recording Industries

NAICS 512

## Employment



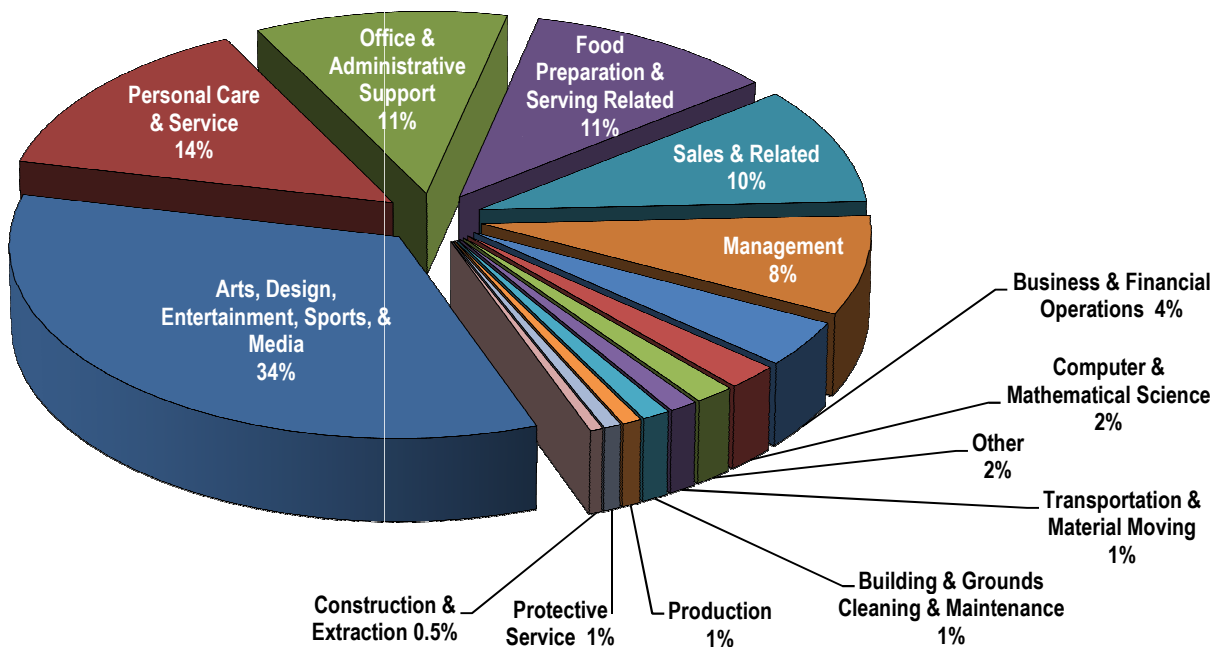
**LA County** 208,578 Jobs  
**SELACO** 538 Jobs

## Average Annual Wage



**LA County** \$87,639

## Major Group Occupations



Sources: CA EDD; BLS; LAEDC

## Detailed Occupations

Arts, design, entertainment, sports, media occupations		Education/Training	Annual Median Wage	Total Employment in LAC
27-1014	Multi-media artists and animators	Bachelor's Degree	\$71,870	6,260
27-1024	Graphic designers	Bachelor's Degree	50,410	10,710
27-2011	Actors	Long-Term On-the-Job Training	*	12,900
27-2012	Producers and directors	Work Experience, Plus a Bachelor's or Higher	104,510	14,710
27-4011	Audio and video equipment technicians	Long-Term On-the-Job Training	39,300	3,820
27-4014	Sound engineering technicians	Post-Secondary Vocational Education	63,290	3,740
27-4031	Camera operators, television, video, and motion picture	Moderate-Term On-the-Job Training	41,970	3,180
27-4032	Film and video editors	Bachelor's Degree	69,410	5,460
27-4099	Media and communication equipment workers, all other	Moderate-Term On-the-Job Training	43,950	3,640
Personal care and service occupations		Education/Training	Annual Median Wage	Total Employment in LAC
39-1021	First-line supervisors/managers of personal service workers	Work Experience	\$40,330	4,080
39-3021	Motion picture projectionists	Short-term on-the-job training	\$21,780	480
39-3031	Ushers, lobby attendants, and ticket takers	Short-Term On-the-Job Training	\$19,230	3,920
Office and administrative support occupations		Education/Training	Annual Median Wage	Total Employment in LAC
43-4051	Customer service representatives	Moderate-Term On-the-Job Training	\$32,800	60,720
43-6011	Executive secretaries and administrative assistants	Moderate-Term On-the-Job Training	\$43,240	65,830
43-6014	Secretaries, except legal, medical, and executive	Moderate-Term On-the-Job Training	\$33,130	30,920
43-9061	Office clerks, general	Short-Term On-the-Job Training	\$26,440	118,720
Food preparation and serving related occupations		Education/Training	Annual Median Wage	Total Employment in LAC
35-3021	Combined food preparation and serving workers, including fast food	Short-Term On-the-Job Training	\$18,050	59,820
35-3022	Counter attendants, cafeteria, food concession, and coffee shop	Short-Term On-the-Job Training	\$18,580	22,250
Sales and related occupations		Education/Training	Annual Median Wage	Total Employment in LAC
41-2011	Cashiers	Short-Term On-the-Job Training	\$19,170	92,580
41-3011	Advertising sales agents	Moderate-Term On-the-Job Training	\$43,910	4,310

## Repair and Maintenance

NAICS 811

### Employment



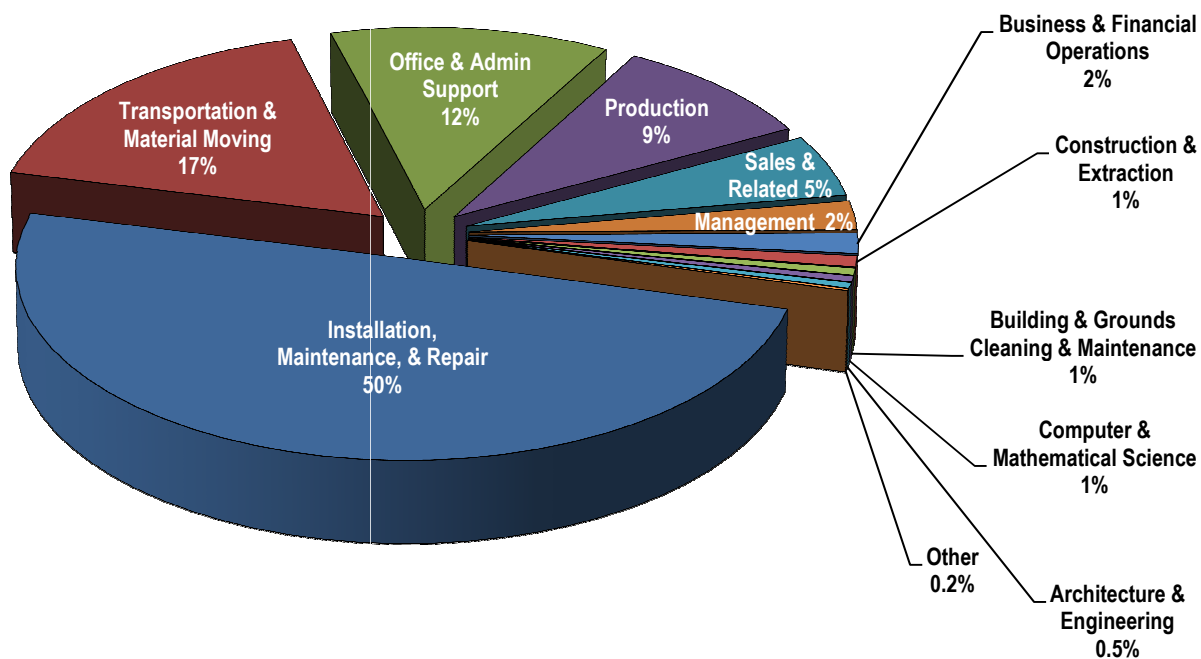
LA County 40,936 Jobs  
SELACO 2,668 Jobs

### Average Annual Wage



LA County \$33,010

### Major Group Occupations



Sources: CA EDD; BLS; LAEDC

## Detailed Occupations

Installation, maintenance and repair occupations		Education/Training	Annual Median Wage	Total Employment in LAC
49-1011	First-line supervisors/managers of mechanics, installers, and repairers	Work Experience	\$63,680	10,700
49-2011	Computer, automated teller, and office machine repairers	Post-Secondary Vocational Education	\$35,280	3,300
49-3021	Automotive body and related repairers	Long-Term On-the-Job Training	\$34,220	3,270
49-3022	Automotive glass installers and repairers	Long-Term On-the-Job Training	\$30,570	430
49-3023	Automotive service technicians and mechanics	Post-Secondary Vocational Education	\$35,300	15,280
49-3031	Bus and truck mechanics and diesel engine specialists	Post-Secondary Vocational Education	\$46,290	5,590
49-9031	Home appliance repairers	Long-Term On-the-Job Training	\$36,140	580
49-9041	Industrial machinery mechanics	Long-Term On-the-Job Training	48,120	3,870
49-9042	Maintenance and repair workers, general	Long-Term On-the-Job Training	36,690	32,020
49-9098	Helpers--installation, maintenance, and repair workers	Short-Term On-the-Job Training	24,410	4,770
Transportation and material moving occupations		Education/Training	Annual Median Wage	Total Employment in LAC
53-1021	First-line supervisors/managers of helpers, laborers, and material movers, hand	Work Experience	\$42,290	8,170
53-6031	Service station attendants	Short-Term On-the-Job Training	\$19,400	**
53-7061	Cleaners of vehicles and equipment	Short-Term On-the-Job Training	\$19,170	16,720
Office and administrative support occupations		Education/Training	Annual Median Wage	Total Employment in LAC
43-3031	Bookkeeping, accounting, and auditing clerks	Moderate-Term On-the-Job Training	\$36,410	57,780
43-6014	Secretaries, except legal, medical, and executive	Moderate-Term On-the-Job Training	\$33,130	30,920
43-9061	Office clerks, general	Short-Term On-the-Job Training	\$26,440	118,720
Production occupations		Education/Training	Annual Median Wage	Total Employment in LAC
53-1021	First-line supervisors/managers of helpers, laborers, and material movers, hand	Work Experience	\$42,290	8,170
53-6031	Service station attendants	Short-Term On-the-Job Training	\$19,400	**
53-7061	Cleaners of vehicles and equipment	Short-Term On-the-Job Training	\$19,170	16,720

## Waste Management and Remediation Services

NAICS 562

### Employment



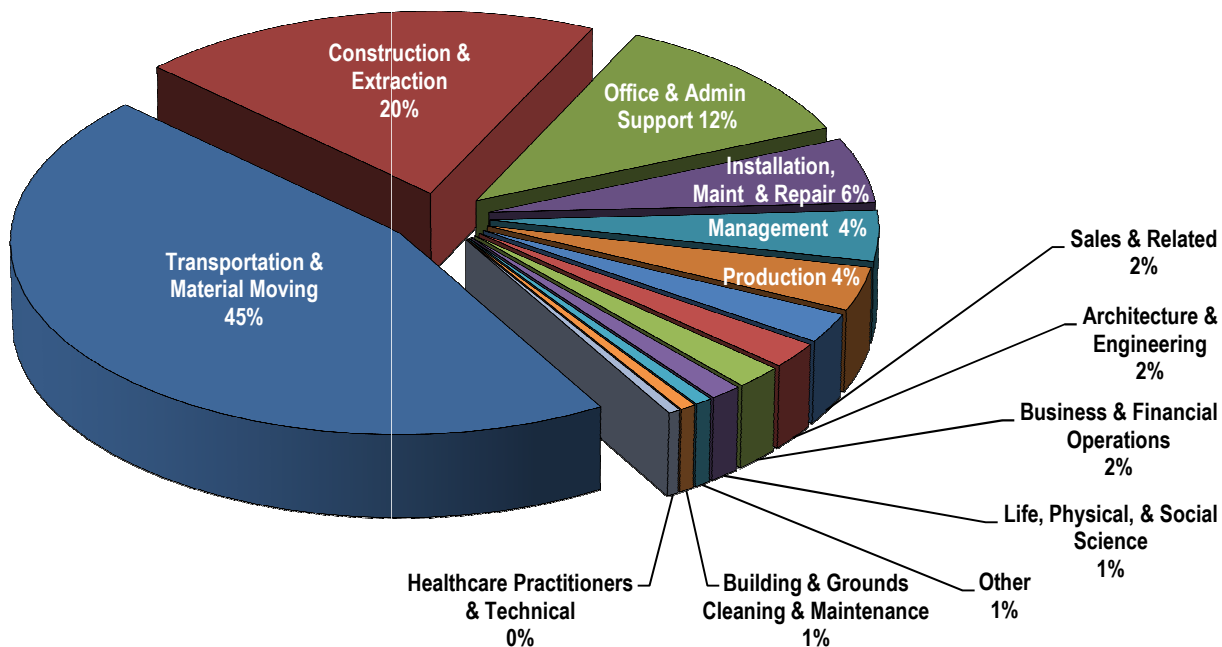
LA County 9,013 Jobs  
SELACO 117 Jobs

### Average Annual Wage



LA County \$51,784

### Major Group Occupations



Sources: CA EDD; BLS; LAEDC



## Detailed Occupations

Transportation and material moving occupations		Education/Training	Annual Median Wage	Total Employment in LAC
53-1031	First-line supervisors/managers of transportation and material-moving machine and vehicle operators	Work Experience	\$57,990	7,540
53-3032	Truck drivers, heavy and tractor-trailer	Moderate-Term On-the-Job Training	39,620	30,400
53-3033	Truck drivers, light or delivery services	Short-Term On-the-Job Training	28,490	29,220
53-7032	Excavating and loading machine and dragline operators	Moderate-Term On-the-Job Training	42,640	300
53-7051	Industrial truck and tractor operators	Short-Term On-the-Job Training	31,610	19,460
53-7062	Laborers and freight, stock, and material movers, hand	Short-Term On-the-Job Training	22,100	84,090
53-7081	Refuse and recyclable material collectors	Short-Term On-the-Job Training	37,480	3,990
Construction and extraction occupations		Education/Training	Annual Median Wage	Total Employment in LAC
47-1011	First-line supervisors/managers of construction trades and extraction workers	Work Experience	\$67,450	11,810
47-2061	Construction laborers	Moderate-Term On-the-Job Training	\$35,190	29,250
47-2073	Operating engineers and other construction equipment operators	Moderate-Term On-the-Job Training	\$69,720	4,590
47-4041	Hazardous materials removal workers	Moderate-Term On-the-Job Training	\$38,410	1,260
47-4071	Septic tank servicers and sewer pipe cleaners	Moderate-Term On-the-Job Training	\$38,450	170
Office and administrative support occupations		Education/Training	Annual Median Wage	Total Employment in LAC
43-3031	Bookkeeping, accounting, and auditing clerks	Moderate-Term On-the-Job Training	\$36,410	57,780
43-4051	Customer service representatives	Moderate-Term On-the-Job Training	\$32,800	60,720
43-6014	Secretaries, except legal, medical, and executive	Moderate-Term On-the-Job Training	\$33,130	30,920
43-9061	Office clerks, general	Short-Term On-the-Job Training	26,440	118,720
Installation, maintenance and repair occupations		Education/Training	Annual Median Wage	Total Employment in LAC
49-3031	Bus and truck mechanics and diesel engine specialists	Post-Secondary Vocational Education	\$46,290	5,590
49-9042	Maintenance and repair workers, general	Long-Term On-the-Job Training	\$36,690	32,020