NORTHEAST LOS ANGELES RIVERFRONT COLLABORATIVE

# THE PATH FORWARD: ECONOMIC AND WORKFORCE INTELLIGENCE FOR NORTHEAST LOS ANGELES

JULY 2013



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This research was commissioned by the Community Development Department of the City of Los Angeles.

The LAEDC Economic and Policy Analysis Group offers objective economic and policy research for public agencies and private firms. The group focuses on economic impact studies, regional industry analyses, economic forecasts and issue studies, particularly in workforce development, transportation, infrastructure and environmental policy.

Every reasonable effort has been made to ensure that the data contained herein reflect the most accurate and timely information possible and they are believed to be reliable.

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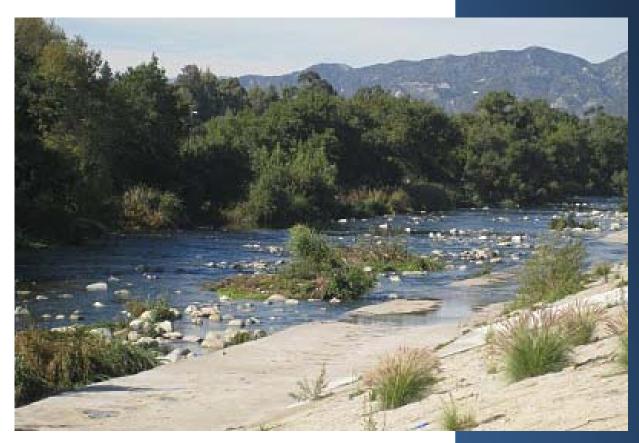
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# INTRODUCTION

# 1 Introduction

# 1.1 The NELA River Collaborative

The Northeast Los Angeles Riverfront District is an eight-mile stretch of the Los Angeles River, comprising Atwater Village and Elysian Valley, as well as portions of Lincoln Heights, Cypress Park and Glassell Park. Bounded by the 134 freeway on the north, Main Street in Lincoln Heights on the south, the Los Angeles River on the west and the 5 freeway on the east, the district is home a diverse spectrum of households.

The NELA River Collaborative brings together a multidisciplinary team from fields of planning, transportation, community engagement, river advocacy, academia, media and community development in a collaborative urban planning effort to incorporate the river into community revitalization, capturing the benefits of the river as an economic development tool (motivator), to enhance river access, identify community assets, using the river as a public catalyst to bring economic development strategies to benefit those that live and work in NELA.  $\clubsuit$ 

### 1.2 Purpose and Vision

The Los Angeles River Revitalization Master Plan, adopted by the L.A. City Council in 2007, aspires to transform the Los Angeles River into a resource for its surrounding communities; with the river revitalization not only having an environmental component, with its ecosystem restoration, but also playing a role in the economic development, community revitalization and recreation for the local community.

In 2012, the Federal Partnership for Sustainable Communities, a partnership between the United States (US) Department of Housing and Urban Development (HUD), the US Department of Transportation (DOT), and the US Environmental Protection Agency (EPA), awarded a \$2.25 million Community Challenge planning grant to the Los Angeles Community Development Department (CDD), to fund the Northeast Los Angeles (NELA) Riverfront Collaborative, for comprehensive planning related to the revitalization efforts in the NELA River Corridor study area, a portion of the Los Angeles



River slated for revitalization efforts by the United States Army Corps of Engineers.

Led by the Los Angeles Community Development Department, partners in the NELA River Collaborative include the Los Angeles Planning Department, the Economic and Policy Analysis Group (EPAG) of the Los Angeles Economic Development Corporation (LAEDC), the Workforce Investment Board, University of Southern California's Annenberg School for Communication and Journalism's Metamorphosis Project, Occidental College's Urban Environmental Policy Institute, KCET Departures, the L.A. River Revitalization Corporation, Tierra West Advisors and the L.A. Conservation Corps.

The role of the LAEDC Economic and Policy Analysis Group (EPAG) in the collaborative is to conduct a study of the composition of the existing industry and the residential population, the juxtaposition of residential and industrial areas surrounding the Los Angeles River in the communities of Atwater Village, Cypress Park, Elysian Valley, Glassell Park and Lincoln Park within the study area, and to identify target industries for business and workforce development. This analysis will be used to build a comprehensive community economic development strategy for the NELA district and to aid outreach efforts in the implementation of these efforts.

# 1.3 Geographic Definition

The NELA River Corridor study area is located between the Ventura/Foothill Freeway (SR134) to the north and Main Street in Lincoln Heights to the south, with the east and west boundaries established by Interstate 5 and San Fernando Road. The focus area contains sections of the communities of Atwater Village, Cypress Park, Elysian Valley, Glassell Park and Lincoln Heights, and is approximately five and a half square miles in land area.

Because the residents and businesses of NELA are not likely to view the boundaries of NELA as constraints to their economic activities, the socio-economic characteristics of NELA must be viewed in the context of the larger community. We therefore identify a larger region which supplies labor to businesses in NELA and which provides jobs for the residents of NELA. This larger area, which we refer to as Greater NELA in the narrative that follows, is defined as residential and commercial districts within transportation corridors of NELA designed to capture the larger market. The NELA study area and Greater NELA are shown Exhibit 1-1. 💠

#### Exhibit 1-1 NELA and Greater NELA



Sources: ESRI, LAEDC

# 1.4 Organization of this Report

The goal of this study is to examine the characteristics of the NELA region, both economic and demographic, to provide a sense of the potential for the region to generate employment opportunities for its residents in order to advance economic development, and to identify the challenges in terms of workforce development to provide opportunities for intervention by the Community Development Department.

The report is organized into three broad sections:

#### Demographic Overview

Demographics provide a window into the dynamics of a population within a specified geography. Social and economic characteristics of residents provide context and insight into the strengths and challenges of the community. Based upon this information, trends and patterns are revealed and can be used to target outreach programs and other types of development efforts to effect positive change in local communities, by bridging connections between community assets and community needs, and by identifying potential intervention opportunities.

#### Labor Market Analysis

In this section, we consider the two component parts of a labor market: the supply of labor and the demand for labor. The supply of labor is essentially determined by the characteristics of the resident population and of workers within commuting distance. The demand for labor is determined by current and projected industry needs and their occupational characteristics. In addition to the projections, we provide a roadmap to target industries for the NELA district given its current economic makeup and its place in context with regional strengths and projections.

#### **Occupational Analysis**

Demographic and labor market analysis is combined here to estimate the occupational makeup of the region, the occupational projections, and the education and skills required for entry into these occupations. Additionally, the occupational makeup of the regional industry targets is provided.





# DEMOGRAPHIC OVERVIEW

# 2 Demographic Portrait

Demographics play a key role in the growth and quality of the labor force and thus to a large extent determine the growth potential of the economy and its future employment.

A comparison of a selection of characteristics in NELA, the Greater NELA area and Los Angeles County is presented in Exhibit 2-1.

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#### Exhibit 2-1

Demographic and Income Characteristics 2012

Characteristic	NELA	NELA	County
Population	45,128	331,621	9,904,341
Median Age	34.7	36.5	34.9
Households	14,084	122,158	3,267,118
Average household size	3.2	2.6	3.0
Median household income	\$ 37,035	\$ 35,703	\$ 51,329
Per capita income	\$ 16,176	\$ 21,771	\$ 24,599
HH below poverty level	18.4%	19.2%	13.8%
Median home value	\$ 286,938	\$ 346,045	\$ 336,821

Source: ESRI, 2005-2009 ACS Estimate

The population of NELA in 2012 was 45,128 in 14,084 households, accounting for approximately 0.5 percent of the population of Los Angeles County. The Greater NELA area had a population more than seven times that of NELA, accounting for 3.3 percent of the county.

Median household income in NELA, estimated to be \$37,035 is approximately 28 percent lower than the average in Los Angeles County but higher than that in Greater NELA. Per capita income in NELA, estimated to be \$16,176 is 26 percent lower than in Greater NELA and 34 percent lower than in the county as a whole.



Almost 19 percent of households in NELA lived under the poverty level in 2009, the most recent year that this data is available for this specific geographic location. This was much higher than in the county, where 13.8 percent of households lived below the poverty level.

Median home values in Greater NELA exceed the county median by almost 3 percent as high-valued homes in parts of Los Feliz and Glendale are included in greater NELA.

Individual socio-economic characteristics are detailed in the following pages.

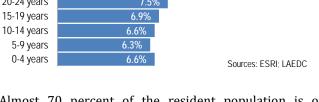
# 2.1 Current Population

Population dynamics are important to resource allocation and future planning and development in an area. The size of a population, along with its growth and/or decline, will affect an area's standard of living, levels of consumption, environmental footprint, infrastructure needs, and more.

Age distribution is one way to determine whether the population within an area is expected to grow, excluding all other factors. A large number of children in an area indicate an expected increase in population, while low numbers signify an expected decline. It is also one way of determining whether the population of an area is aging, which will affect the future needs of the area in terms of replacement workforce and provision of services.

The age distribution of NELA's population is displayed in Exhibit 2-2.

#### Exhibit 2-2 Age Distribution of Population 2012 NELA Focus Area Total Population: 85+ years 1.2% 45,128 75-84 years 3.6% 65-74 years 6.6% 55-64 years 10.6% 45-54 years 12 3% 35-44 years 15.2% 25-34 years 16.5% 20-24 years



Almost 70 percent of the resident population is of working age (between the ages of 15 and 65 years) compared to 69 percent in Los Angeles County as a whole. Seniors (those over the age of 64) account for 11.5 percent of the population, about the same as 11.3 percent in the county.

The population of NELA is projected to grow by 2.2 percent to 46,114 residents by 2017, a nominal increase of nearly 990 people. The population is expected to age slightly, as the share of residents aged 65 years and older increases to 13.1 percent in 2017. Research indicates that this trend, typical across the nation, is attributable to the relatively larger baby boomer

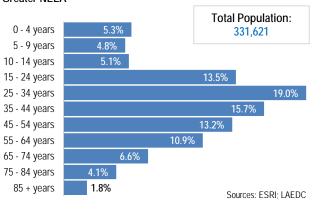


generation aging and the smaller replacement Generation X and millennials.

The age distribution of the population in Greater NELA is shown in Exhibit 2-3. Although quite similar, more than 72 percent of the resident population of the larger area is of working age, higher than in NELA. This segment of the population forms the bulk of the available labor to local businesses.

#### Exhibit 2-3

Age Distribution of Population 2012 Greater NELA



The population of the region is projected to grow by 1.8 percent to 337,582 residents in the next five years, an increase of nearly 6,000 people. As with the NELA area, the population will age, with share of residents aged 65 years and older increasing to 14.1 percent in 2017.

# 2.2 Race, Ethnicity and Language Capability

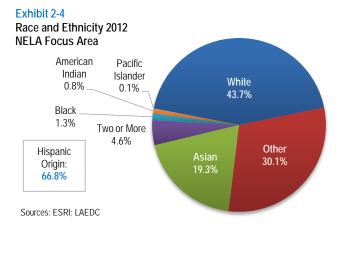
Ethnicity and race are two distinct classifications. There are several characteristics that may be more likely to be common to a population within the same race and ethnicity, including language, educational attainment, unemployment, size of household, and other cultural, economic and social characteristics. As such, we identify both classifications for the resident population of NELA and Greater NELA.

*Race* is a social definition used in the U.S. as a means of self identification. This social construct of race does not incorporate biology, anthropology or genetics into its definition. There are seven racial categories used by the Census: White, Black or African-American, American Indian or Alaska Native, Asian, Native Hawaiian or Other Pacific Islander, Two or More Races, and Some Other Race.

*Ethnicity* is a shared cultural identity related to origin and considers such things as heritage, lineage, nationality, and ancestral country of birth. Individuals who identify as being of Hispanic origin can self identify as any race.

There is widespread confusion over the distinction between race and ethnicity. Some Census respondents who identify as of Hispanic Origin do not identify with the listed racial categories. Therefore, they may opt to select Some Other Race, which results in an overstatement of this particular classification.

Race and ethnicity in NELA is shown in Exhibit 2-4.

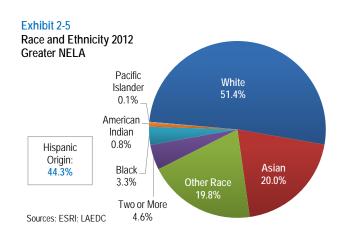




The population in NELA in 2012 is both ethnically and racially diverse. The share of the residents who reported to be of Hispanic origin is higher than the county overall – 66.8 percent is of Hispanic origin in NELA compared to 48.4 percent in Los Angeles County.

In NELA, 43.7 percent of the population is reported as White compared to 50.0 percent in the county. Consequently, the share of population in NELA reporting their race as Asian and Black (19.3 percent and 1.3 percent, respectively) is higher than in Los Angeles County (8.5 percent and 0.3 percent, respectively).

The Greater NELA area is somewhat less diverse than NELA and the county, with 44.3 percent of Hispanic origin, and 51.4 percent reporting as White. The area has a significant Asian population, reaching 20 percent of its population.

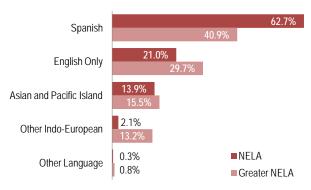


Language ability is an important aspect of employment and economic participation. Languages spoken at home in NELA and Greater NELA are presented in Exhibit 2-6.

More than three-quarters of the population in NELA speaks a language other than English at home, with Spanish being the most common language, spoken by more than half of the population. Less than 25 percent of residents speak only English at home.

#### Exhibit 2-6

Languages Spoken At Home



Sources: ESRI; LAEDC, 2005-2009 ACS Estimate

The breakdown differs in Greater NELA because the region includes larger portions of the City of Glendale and Los Feliz, both of which have a different racial and ethnic makeup than NELA. Almost two thirds of the population in Greater NELA speaks a language other than English at home, with Spanish once again being the most common language, spoken in 40 percent of all homes. Greater NELA has a significantly larger share of

Other Indo-European languages spoken at home at 13 percent versus two percent in NELA.

English-speaking capability is highly-variable among different nationalities. Exhibit 2-7 shows the share of residents in NELA, Greater NELA and Los Angeles County who speak English less than well in homes where languages other than English are spoken.

#### Exhibit 2-7

**Residents Speaking English Less Than Well** 

Language Spoken at Home	NELA	Greater NELA	Los Angeles County
Spanish	27.8%	30.9%	30.8%
Other Indo-European	15.9%	31.4%	18.3%
Asian and Pacific Island	29.3%	32.4%	26.9%
All other non-English	51.7%	24.5%	10.3%
NELA Area	27.8%	31.2%	28.6%

Sources: ESRI; LAEDC, 2005-2009 ACS Estimate

Of the residents that speak languages other than English at home, approximately 28 percent of NELA residents speak English less than well; Greater NELA and Los Angeles County have 31 and 29 percent, respectively, who speak English less than well. As a percentage of all residents, in NELA and in Greater NELA, 22 percent speak English less than well, compared to 16 percent in the county overall.



### 2.3 Households

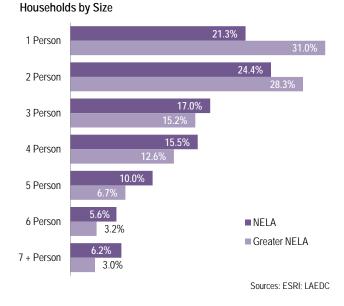
Exhibit 2-8

As shown in Exhibit 2-1 above, there were 14,084 households NELA in 2012, with an average household size of 3.2 people per household. Greater NELA had more than eight times the number of households with a lower density per household of 2.6 people. By 2017, Greater NELA is projected to add almost 2,700 households.

To place the area in context, note that there were 3.3 million households in Los Angeles County in 2012, a number that is projected to increase by 60,300 in 2017.

The size of households within an area is another indicator of the standard of living in an area. Often, lower income areas will have a higher share of large sized households as people reside together to share fixed household expenses such as rent. A large representation of single person households may indicate an area with a population that is younger, with fewer children or with higher levels of educational attainment.

Exhibit 2-8 shows the households in the NELA and Greater NELA area according to size.



One person and two person households account for about 45 percent of all households in NELA and almost 60 percent of all households in Greater NELA. The NELA area has a significant number of larger sized households:



22 percent have five or more people compared to 13 percent in Greater NELA.

Median household income is the midpoint value of all household income levels within an area, dividing them into two equal groups. Where average income figures can be skewed by the presence of a few extremely high or low values, the median income figure is not, and therefore is viewed as more representative of an area's income. Median household income in NELA, Greater NELA and Los Angeles County are shown in Exhibit 2-9.

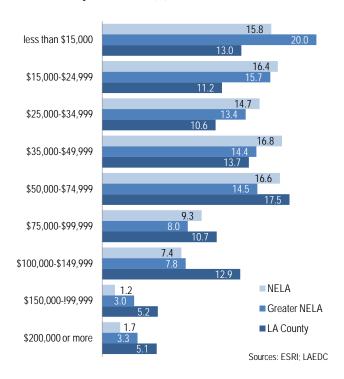
# Exhibit 2-9 Median Household Income \$37,035 \$35,703 NELA Sources: ESRI: LAEDC

Median household income in NELA in 2012 was estimated to be \$37,035, lower than in Los Angeles County as a whole. The lower density of people per household in Greater NELA yields a lower median household income than in NELA as there were fewer working members of the household on average.

The distribution of households by income in NELA, Greater NELA and Los Angeles County is shown in Exhibit 2-10.

#### Exhibit 2-10

Households by Income 2012 (%)



Household expenditures are related to household incomes, not only in magnitude but also in composition. Households with lower incomes tend to spend a larger percentage on necessities such as food and rent and have less disposable income for luxury items such as travel and leisure activities, especially relevant for regions with much higher average household incomes.

In 2012, average household expenditures in NELA averaged \$49,400, compared to the average in Greater NELA of \$51,700 and across the county of \$69,700.

Exhibit 2-11 displays a breakdown of the average household expenditures in the three regions in 2012.

#### Exhibit 2-11 Household Expenditures by Category (%)



While almost 50 percent of households in Los Angeles County earn less than \$50,000 per year, over 63 percent of households in NELA and Greater NELA, do. Concurrently, the percentage of households in NELA and in Greater NELA in higher income brackets is much smaller than in Los Angeles County. While the total amount of expenditures made by households in Greater NELA are 25 percent less than the county, the distribution of expenditures among the different categories is almost identical. Almost one-third of household expenditures on average were allocated to housing, with another 14 percent paid towards transportation and 12 percent for food.



### 2.4 Land Use

An examination of a region's land use according to zoning can give an illustration of where certain types of activity are located. It identifies the location of residential areas (where potential workforce is located), and commercial and industrial zoning (where industry and businesses are located). Greater levels of detail reveal specific characteristics, such as population density or where retail operations that serve the resident population may be located.

Additionally, prevailing zoning provides a realistic picture of the type of development that could take place within an area. For example, an area that is mostly zoned as residential will have limited opportunities for growth of industry. Similarly, an area that is adjacent to land zoned for heavy industrial uses will not be feasible for residential development, as often the traffic noise and congestion that surrounds businesses of this type are in direct contrast to what most homeowners are looking for when buying a residence.

Exhibit 2-12 shows the distribution of zoned land use in NELA compared to Greater NELA and the county,

Exhibit 2-12			
Land Use by Type (% of Total)			
	NELA	Greater NELA	Los Angeles County
Residential	25.6%	40.1%	14.6%
Commercial	15.6%	20.3%	6.6%
Industrial	18.8%	5.0%	2.5%
Mixed Urban	0.2%	0.2%	0.0%
Open Space, Recreation and Vacant	12.5%	10.1%	2.1%
Transportation, Communication,			
Utilities	20.7%	10.4%	2.5%
Agriculture	0.9%	0.2%	3.1%
Other Land Uses	1.2%	1.5%	11.5%
Vacant	4.7%	12.3%	57.0%
Total Zoned Land Area	100.0%	100.0%	100.0%
(Sq. miles)	4.2	26.6	4,088

Sources: LA Countywide Zoning; LAEDC

Land zoned for residential purposes is set aside for single family residences, multi-unit dwellings and mobile homes, or a combination of these. Land zoned for commercial and services uses are predominantly for businesses which provide goods and services to resident populations, such as grocery and health care stores, restaurants, hotels and motels, retail stores, gas stations, banks, medical services, laundry services, insurance agents, and so on. Also included are government and public service offices, such as police and fire stations, military facilities, churches, and all levels of public and private schooling facilities.

Land zoned for industrial uses are areas where manufacturing, assembly, processing, packaging or storage of products occurs. This includes (i) light industrial, such as design, assembly, packaging and storage activities, motion picture and television studio lots, and research and development labs; (ii) heavy industrial which are more traditional processors of raw materials such as refineries, foundries, smelters, chemical refineries; (iii) extraction such as mining and drilling; and (iv) wholesaling and warehousing.

Greater NELA has significantly more residential land area as a percentage of overall land area than NELA. This appears to come at the expense of industrial land, since land zoned for commercial uses accounts for 20 percent of Greater NELA compared to 16 percent in NELA while the differential in industrial land between the two regions is almost 14 percentage points.

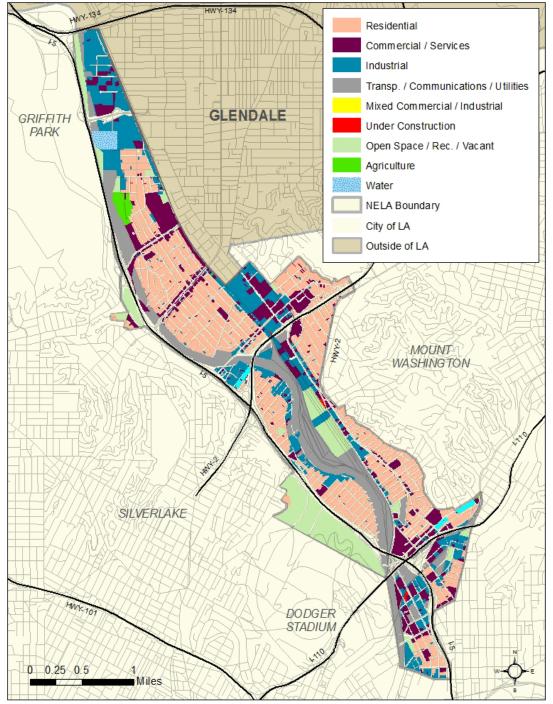
Both regions are both more residential and more industrial than the county overall. However, 57 percent of county land is either mountainous and preserved as state and federal parks or desert and undeveloped. Together, these lands are zoned as vacant. Residential land as a percentage of the remaining land area of the county is approximately 34 percent, commercial is 15.4 percent and industrial is 5.9 percent – all of which are more comparable to the percentage shares in NELA and Greater NELA.

Spatial representations of NELA and of Greater NELA are presented in Exhibits 2-13 and 2-14.

The maps show quite clearly the prevalence of residential land in Greater NELA in areas that lie outside of NELA.



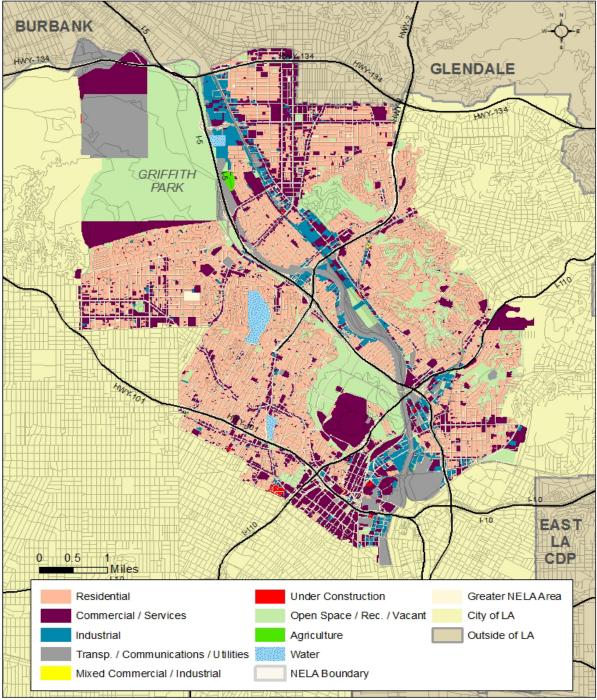
#### Exhibit 2-13 Land Use in NELA



Sources: LA Countywide Zoning, LAEDC



Exhibit 2-14 Land Use in Greater NELA



Sources: LA Countywide Zoning, LAEDC

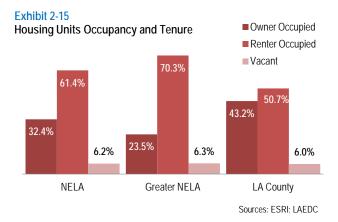
# 2.5 Housing

Housing represents the largest component of a household's budget, and if owned is usually the family's most valuable asset. Beyond housing's impact on individual balance sheets, however, the characteristics of a community's housing can be revealing.

The tenure and occupancy status of homes, along with their values, provides information on their affordability. It can also yield further insight into the resident population. For example, a large number of renters in an area with high-valued housing units may be due to the residents' inability to afford local homes. A large number of rental units in an area with moderately valued housing units may be due to a younger and/or less affluent demographic. Often, higher levels of homeownership lead to neighborhood stability, since there are fewer turnovers of residents.

Additionally, the tenure characteristics of the local housing stock has implications for redevelopment efforts as gentrification can cause property values to rise above the level of affordability for residents who rent, leading to displacement and a change in the characteristics of the local population.

In 2012, there were 11,344 housing units in NELA and 130,316 in Greater NELA. The occupancy status and tenure of all housing units in NELA, Greater NELA and Los Angeles County are shown in Exhibit 2-15.

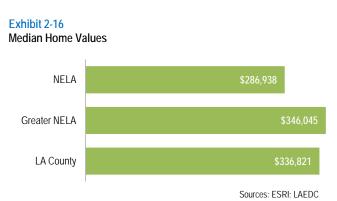


In all three regions, the majority of the housing stock consists of rental property. More than 61 percent of all housing units in NELA are occupied by renters, compared to 70 percent in Greater NELA and 51 percent across the county. Vacant units account for approximately six percent of all housing units.



Home ownership varies, with the lowest home ownership share in Greater NELA at 24 percent of housing units, compared to over 43 percent of all housing units in the county and about a third of housing units in NELA.

Median home values are shown in Exhibit 2-16. The median is deemed a reliable estimate as it is not affected by the presence of extremely high or low valued transactions, and is therefore used to compare real estate prices across different areas.



In 2012, the median home value in NELA was \$287,000, this was 17 percent lower than the median value in



Greater NELA as higher-valued homes in parts of Los Feliz and Glendale are included in that region. The median in Greater NELA, at \$346,000, was 2.7 percent higher than the county median. This can also be seen in the value distribution of owner-occupied housing units shown in Exhibit 2-17.

The average value of housing in NELA is \$304,621, compared to \$401,962 in Greater NELA and \$409,163 in Los Angeles County. About 77 percent of housing stock in NELA is valued less than \$400,000 (which is the average housing value in Greater NELA) compared to 62

#### Exhibit 2-17



Owner-Occupied Housing Units by Value (%)

percent in Greater NELA and 63 percent across the county.

For the county overall, 10 percent of all owner-occupied housing is valued at \$750,000 and above. The largest segment of housing stock, or nearly a quarter of all owner-occupied housing units, is between \$300,000 and \$399,000 in value. Housing units whose price falls below \$250,000 represent 36 percent of owner-occupied housing in Los Angeles County in 2012. 💠

# 2.6 Commuting to Work

Working residents make a conscious decision about the length of the commute they are willing to undertake to a potential place of employment, which may in turn depend on their means of transportation. These decisions are critical to their quality of life and standard of living. The time to work, the cost of transportation alternatives, and the potential wages at prospective job locations all factor into employment decisions.

Identifying the means of transportation used by residents to travel to work provides information about public transportation utilization and traffic volumes within the area. This can help in future planning efforts. For example, areas with a number of cyclists may plan future bike paths and lanes, while in areas where much of the population uses public transportation additional bus routes or light rail stations can be planned.

Exhibit 2-18 shows the means of transportation to work by workers ages 16 years and over who live in NELA and Greater NELA.

#### Exhibit 2-18

Workers means of transportation to work (Workers 16+ years)

	NELA	Greater NELA
Drove alone	66.9%	64.5%
Public transportation (excludes taxis)	11.3%	13.0%
Bus or trolley bus	11%	12.1%
Subway or elevated	0.1%	0.7%
Railroad	0.1%	0.1%
Streetcar or trolley car	0.0%	0.1%
Carpool	11.8%	9.3%
Walked	4.5%	5.6%
Worked at home	3.4%	4.7%
Other means	1.2%	1.8%
Bicycle	0.7%	0.8%
Motorcycle	0.3%	0.3%
Total	100.0%	100.0%

Sources: ESRI, LAEDC, 2005-2009 ACS Estimate

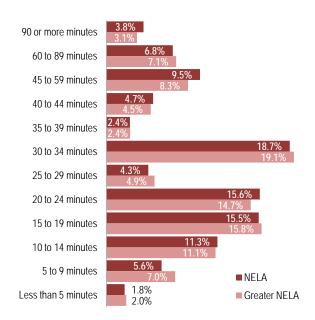
Working residents of both regions choose similar modes of transportation to work. The most popular method of transportation to work was by car, accounting for approximately 75 percent of working residents. Most of these drove alone, with only ten percent overall carpooling. Public transportation was used by 11 percent of working residents in NELA and 13 percent in Greater NELA, most of which consisted of bus rides.



Travel time to work is typically the result of a combination of distance to the job and means of transportation. Exhibit 2-19 displays the travel time to work in minutes for NELA area residents (excluding those who work from home).

#### Exhibit 2-19

Travel Time to work (in minutes)



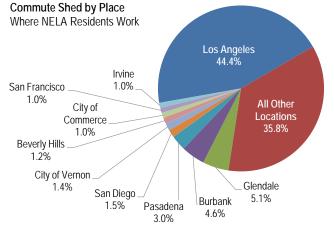
Sources: ESRI; LAEDC; 2005-2009 ACS Estimate

In both areas, more than half of commuting workers take between 15 to 35 minutes to reach their place of employment. Workers whose travel time falls below 15 minutes account for approximately 20 percent of working residents. These workers are more likely to be employed within the region. The ten percent of workers with travel times of 60 minutes or longer are likely to work quite a distance from home.

The working residents of NELA and Greater NELA find jobs across Los Angeles County, and in neighboring counties as well. Approximately 89 percent of working residents are employed in Los Angeles County, with others working in Orange County (3.6 percent), San Bernardino County (1.6 percent), San Diego County (1.1 percent), and Riverside, Santa Barbara and Ventura counties and beyond.

The geographic dispersion of working residents to their employment is called the *commute shed*. Exhibit 2-20 shows the commute shed for NELA's working residents by city (or place).

#### Exhibit 2-20



Sources U.S. Census Bureau, OnTheMap Application and LEHD Origin-Destination Employment Statistics

Almost half of working residents in NELA are employed in the City of Los Angeles, while the remaining residents are employed in surrounding cities, including Glendale, Burbank, Pasadena, Beverly Hills, West Hollywood, Commerce, Monterey Park, and elsewhere.

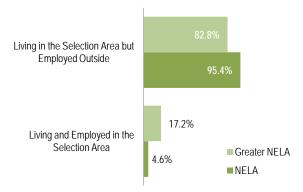
The commute shed for Greater NELA is broadly similar, with almost 87 percent of working residents employed in Los Angeles County, 4.4 percent in Orange County, 1.6 percent as far south as San Diego County, and almost 3 percent in the Inland Empire. The distribution by city of employment is approximately the same as the NELA distribution shown in the exhibit above.

Related to the commute shed for residents is the *in-area labor force efficiency*. This is a measure of how efficient the community is in providing jobs for working residents.

Exhibit 2-21 displays the in-area labor force efficiency for NELA and Greater NELA.

#### Exhibit 2-21

In-Area Labor Force Efficiency



Sources U.S. Census Bureau, OnTheMap Application and LEHD Origin-Destination Employment Statistics

For both geographic areas, the vast majority of the resident working population is employed outside of the selection area. Because Greater NELA is geographically larger, a larger percentage of its working population works within its region, but at 17 percent, this is still a small percentage.

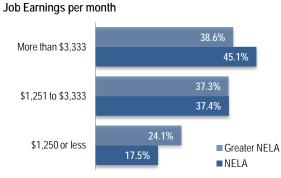
## 2.7 Income

For many, earnings from employment represent the most significant portion of all income. These job-related earnings of the resident population provide us with insight into their standard of living. This is an indicator of the earning potential of the residents, as differentiated from household income shown above which aggregates the overall income (including non-jobrelated incomes) for all members of the household. It can help identify areas that may need targeted services or programs, or areas where job-related earnings are sufficient to provide a degree of comfort.

Job-related earnings also provide insight into the capability of the residents to secure employment and at what level of pay. Detailed (individual) information for job-related earnings is not available in order to protect confidentiality; however, aggregated data is available and gives us overall perspective.

Exhibit 2-22 shows the job-related earnings for working residents in NELA and Greater NELA. Note that these are earnings from jobs regardless of where the jobs are located.





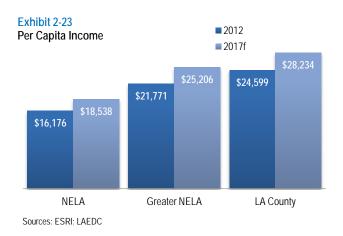
Sources U.S. Census Bureau, OnTheMap Application and LEHD Origin-Destination Employment Statistics

About 45 percent of working residents in NELA earn more than \$3,333 per month (\$40,000 per year), somewhat more than the 39 percent of working residents in Greater NELA. NELA residents who earned less than \$1,250 per month (\$15,000 per year) represented 17.5 percent of the total, a smaller share than the 24 percent of working residents in Greater NELA. Overall, residents in NELA on average earn more from job-related income than residents of Greater NELA.



Per capita income is the aggregation of all sources of income within an area divided by the total population, resulting in the average income per person. It provides insight into an area's standard of living in comparison to other geographies.

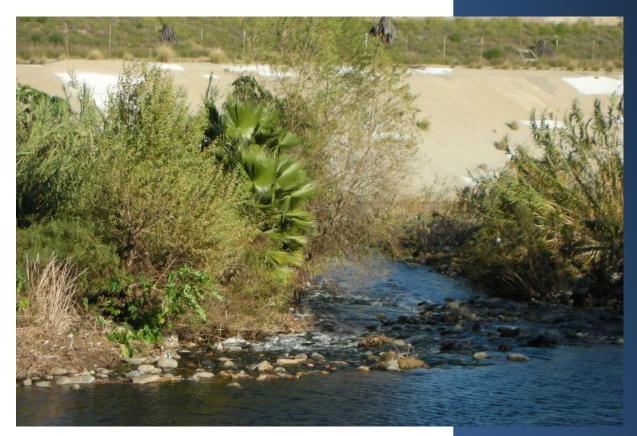
Per capita income for the three regions is shown in Exhibit 2-23, along with forecasts for 2017.



Per capita income, at \$16,176, is almost 26 percent lower in NELA than in Greater NELA (\$21,771) and 34 percent lower than in Los Angeles County (\$24,599).

The projected change in per capita income from 2012 to 2017 is expected be 13.0 percent in NELA, 15.8 percent in Greater NELA and 14.8 percent in Los Angeles County.





# LABOR MARKET ANALYSIS

# 3 Supply of Labor

Labor market analysis begins with an examination of the current and projected local supply of labor. Local supply is determined by population growth (including migration), residential land availability and location, and the characteristics of the local labor force, which may include commuters.

# 3.1 Population Growth

Population growth is determined by expected net migration and the birth and death rates of the current population. Knowing how a population is projected to grow can help to determine what a specified area will require in the future in terms of products and services, and what resources the region will provide to industry in terms of human capital.

Exhibits 3-1 and 3-2 present the historic and projected populations of NELA and Greater NELA.

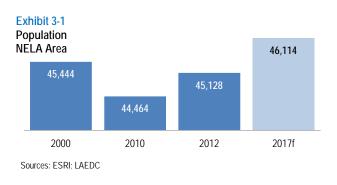
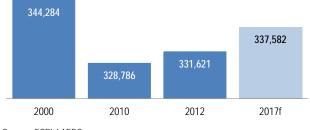


Exhibit 3-2 Population





Sources: ESRI; LAEDC

From 2000 to 2012, the population of NELA decreased by approximately 0.7 percent, losing 316 residents,



while Greater NELA experienced an exodus of more than 12,660 residents declining 3.7 percent over the same period.

The county's annual growth rate is approximately 0.33 percent per year, a rate that is consistent with Greater NELA, which will add approximately 6,000 residents by 2012, but NELA will grow at a slightly higher rate of 0.43 percent per year on average for the next five years, adding almost 986 residents. To place these trends in context, the California Department of Finance states that annual growth for the state from 2000 through 2012 was 0.9 percent, a rate which is anticipated to continue.



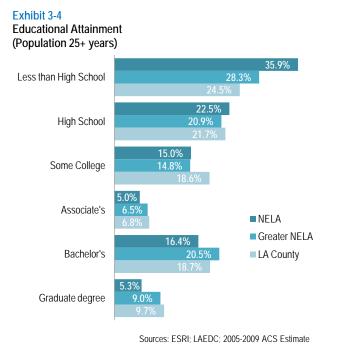
The NELA population is expected to age somewhat as the share of residents aged 65 years and older increases from 11.4 percent in 2012 to 13.1 percent in 2017. This has implications for the ability of the workforce to fill local jobs, especially those jobs requiring a higher level of manual labor.

# 3.2 Educational Attainment

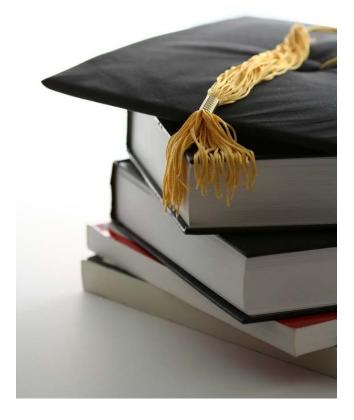
Educational attainment is the highest level of education that an individual has achieved. Knowing the educational attainment of the population within a specific area can provide insight into a variety of factors about the area. Areas with high rates of low educational attainment usually face challenges such as higher rates of unemployment and poverty and will therefore use higher levels of public services and resources.

Additionally, areas with high levels of educational attainment may be sought out by businesses during their site selection process if they require highly educated and high skilled workers. Understanding the gap between workforce needs and resident capabilities can provide insight into the need for training programs and workforce development initiatives.

Educational attainment rates for NELA, Greater NELA and Los Angeles County are shown in Exhibit 3-4.



The population of residents 25 years of age and older in NELA numbered 29,834 in 2012, compared to 235,141



in Greater NELA. Approximately 36 percent of NELA residents in this age group have not earned a high school diploma (or equivalent) while 22.5 percent have graduated high school but have no other education. About 21.7 percent of the residents have a bachelor's degree or higher. Together, this shows a bi-modal distribution of educational attainment, with large proportions at both the low end and the high end of the spectrum.

Residents of Greater NELA have similar educational attainment rates, with almost 29.5 percent of residents having a bachelor's degree or higher. These rates are better at the high end than for residents of Los Angeles County overall, where just over 28 percent of residents have earned a bachelor's degree or higher, but they are poorer at the low end, since over 75 percent of Los Angeles County residents have at least earned a high school diploma.



# 3.3 Residential Land Use

Land is zoned for many uses reflecting the priorities of the municipal legislative body. A city which is focused on providing land for industry and commercial uses (such as, for example, the City of Industry or the City of Commerce) may choose to limit the amount of land that is zoned for residential purposes. This will allow densification of industrial uses and provision of employment opportunities without hampering businesses with mitigation measures to prevent inconveniencing nearby residents.

On the other hand, a city which is focused on providing residential conveniences (such as, for example, Rolling Hills or San Marino) may choose to limit the amount of land that is zoned for industrial purposes so that its residents are fully able to enjoy a peaceful and tranquil quality of life without the inconveniences of traffic noise and congestion, potential industrial emissions and industrial activity.

Many cities strive for a balanced approach which recognizes the value of commercial and industrial land in providing employment opportunities for its own residential population.

At the same time, businesses located within a region need a ready supply of labor adequate to their needs. This labor can come from the community itself or it can commute from neighboring cities and regions. These sources represent the supply of labor.

The most direct source of labor is that which lives within the immediate surroundings. Such labor must live in areas that are zoned for residential uses.

Residential land can be zoned for single family residences or for higher-density multi-family uses. Exhibit 3-5 displays residential and recreational land use by type and square footage in NELA and Greater NELA.

Recreational and open space provides land for public use and enhances the quality of life of residents as they enjoy nature and natural beauty. Open spaces, whether parks for public use, protected areas or private facilities, that allow leisure activities such as baseball fields, zoos, nature preserves, community gardens, and so on, all contribute to the quality of life for residents.

Approximately 52 percent of the land area in NELA is zoned for residential and recreational uses compared to



68 percent in Greater NELA. The proportion of land zoned for recreational uses is similar, but as noted above Greater NELA has a greater allocation of residential land.

At the county level, recall that land zoned for residential uses account for approximately 14.6 percent of all land.

Moreover, almost 25 percent of Greater NELA land is zoned for higher-density multi-family residential purposes, compared to 8.6 percent of NELA. This higher density of residential land use allows a larger population per square mile in Greater NELA and provides both the opportunity for commercial businesses to find customers and for commercial and industrial businesses to find workers. Spatial representation of residential and recreational land uses in NELA and Greater NELA are shown in Exhibits 3-6 and 3-7.

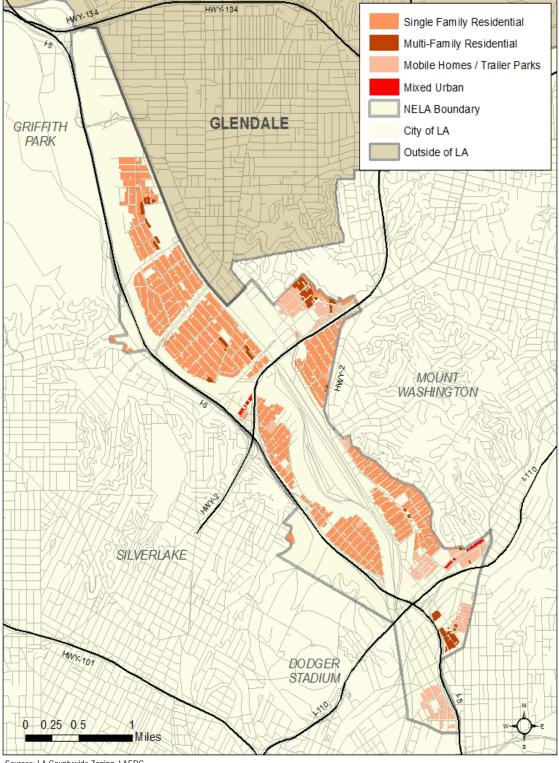
#### Exhibit 3-5

Residential and Recreational Land Use by Type

	NELA_		Greater I	NELA
	Sq Ft (mil)	% of Total	Sq Ft (mil)	% of Total
Residential Land:				
Single Family Residential	23.8	18.3%	231.8	21.1%
Multi-Family Residential	11.2	8.6%	273.4	24.9%
Total Residential	35.0	26.9%	505.2	46.0%
Mixed Urban	2.9	2.2%	8.7	0.8%
Open Space and Recreation	30.0	23.1%	228.8	20.8%
Residential / Recreational Land Area	67.8	52.2%	742.7	67.7%
Sources: LA Countywide Zoning, LAED	С			

### Exhibit 3-6

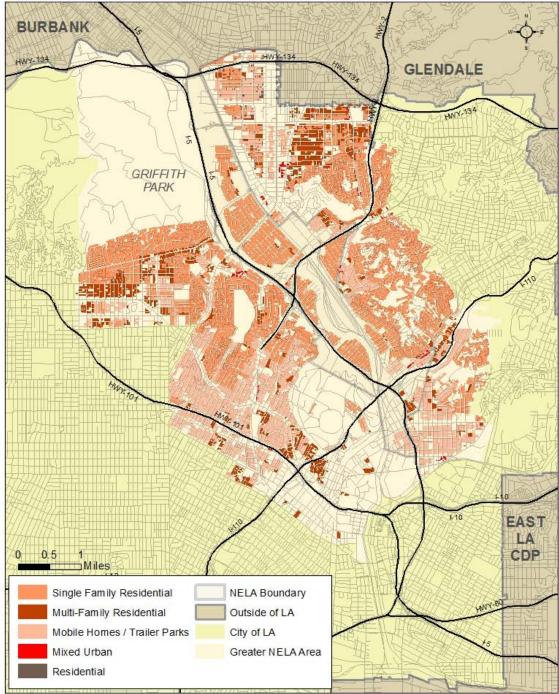
NELA Residential Areas



Sources: LA Countywide Zoning, LAEDC



#### Exhibit 3-7 Greater NELA Residential Areas



Sources: LA Countywide Zoning, LAEDC

# 3.4 Resident Employment by Industry and Occupation

While population growth can indicate the future availability of workers, and educational attainment can provide insight into the capability of residents, an examination of the actual employment status of current residents reveals what the working residents are performing in terms of occupations and in which industries. It is possible that working residents are underemployed, particularly in the wake of the Great Recession, but current employment will provide a baseline indicator of residents' capabilities.

The employment of current residents of NELA and Greater NELA by industry is shown in Exhibit 3-8. Note that this is employment of residents no matter where the jobs are located.

#### Exhibit 3-8

Resident Employment by Industry (Population 16+ years)

Industry	NELA	Greater NELA	Los Angeles County
Health care and social assistance	11.9%	11.8%	12.4%
Retail trade	11.5%	10.8%	10.6%
Manufacturing	10.5%	9.1%	10.6%
Admin/support/waste mgmt	7.2%	4.8%	5.0%
Accommodation and food srvcs	7.0%	8.0%	7.1%
Educational services	6.7%	7.1%	8.3%
Prof'l/scientific/tech services	6.5%	7.4%	7.1%
Other services	6.4%	8.1%	6.5%
Construction	6.3%	5.6%	5.7%
Information	5.1%	6.3%	4.2%
Arts, entertainment, recreation	4.4%	4.9%	3.2%
Transportation / warehousing	4.2%	3.5%	4.5%
Finance and insurance	3.4%	3.6%	4.2%
Government	3.4%	2.9%	3.4%
Wholesale trade	2.8%	3.2%	3.7%
Real estate/rental/leasing	1.4%	2.2%	2.1%
Ag, forestry, fishing and hunting	0.6%	0.2%	0.5%
Utilities	0.5%	0.5%	0.6%
Mining/quarrying/oil and gas extraction	0.1%	0.1%	0.0%
Management of companies	0.0%	0.1%	0.1%
Total - Industry - 16+ years	100.0%	100.0%	100.0%

Sources: LAEDC; ESRI, 2005-09 ACS estimates



Residents of the two regions are employed in quite similar industries. The top three employing industries are: health care and social assistance (accounting for 11.9 percent of NELA resident employment and 11.8 percent of Greater NELA); retail trade (11.5 percent of NELA resident employment and 10.8 percent of Greater NELA); and manufacturing industries (10.5 percent in NELA and 9.1 percent in Greater NELA).

Other regional industries that employ local residents include administrative support and waste management services, accommodation and food services, educational services, and professional, technical and scientific services.

This mirrors the experience at the county level to a large extent, which will be shown in a following section.

Within each industry, there are a variety of occupations that are employed. For example, sales representatives are employed in retail industries, in manufacturing firms, in health care services and across a number of other sectors. Nurses may be employed in hospitals, in schools or by insurance carriers.

Individuals trained in an occupation may therefore find employment in a variety of industries, and will be especially interested in industries that are growing no matter what their individual skill levels may be since growing industries will hire a panoply of workers at many skills and education levels.



The working residents of NELA and Greater NELA are trained and employed in a variety of occupations, as shown in Exhibit 3-9.

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#### Exhibit 3-9

Resident Employment by Occupation (Population 16+ years)

Office and admin support         15.9%         13.5%         18.5%           Sales and related         11.2%         10.7%         10.2%           Management         7.8%         7.8%         5.6%           Building/grounds cleaning/maint         6.8%         5.3%         2.5%           Production         6.5%         6.9%         6.6%           Food prep and serving related         6.3%         6.4%         8.4%           Personal care and service         6.1%         5.2%         2.3%           Transportation / material moving         5.6%         5.3%         7.1%           Arts/entertainment/sports/media         5.4%         7.8%         3.5%           Education, training and library         4.3%         4.6%         6.3%           Business and financial operations         4.2%         4.0%         5.3%           Construction and extraction         3.5%         4.9%         2.3%           Installation, maintenance, repair         3.3%         2.4%         3.0%           Healthcare practitioner and techs         2.9%         3.9%         4.9%           Protective service         1.6%         1.6%         2.9%           Computer and mathematical         1.4%         1.6%         2	Occupation	NELA	Greater NELA	Angeles County
Management         7.8%         7.8%         5.6%           Building/grounds cleaning/maint         6.8%         5.3%         2.5%           Production         6.5%         6.9%         6.6%           Food prep and serving related         6.3%         6.4%         8.4%           Personal care and service         6.1%         5.2%         2.3%           Transportation / material moving         5.6%         5.3%         7.1%           Arts/entertainment/sports/media         5.4%         7.8%         3.5%           Education, training and library         4.3%         4.6%         6.3%           Construction and extraction         3.5%         4.9%         2.3%           Installation, maintenance, repair         3.3%         2.4%         3.0%           Healthcare practitioner and techs         2.9%         3.9%         4.9%           Community and social services         2.0%         2.3%         1.6%           Protective service         1.6%         1.6%         2.9%           Computer and mathematical         1.4%         1.6%         2.5%           Architecture and engineering         1.3%         1.3%         1.8%           Legal         0.6%         1.4%         1.0%	Office and admin support	15.9%	13.5%	18.5%
Building/grounds cleaning/maint         6.8%         5.3%         2.5%           Production         6.5%         6.9%         6.6%           Food prep and serving related         6.3%         6.4%         8.4%           Personal care and service         6.1%         5.2%         2.3%           Transportation / material moving         5.6%         5.3%         7.1%           Arts/entertainment/sports/media         5.4%         7.8%         3.5%           Education, training and library         4.3%         4.6%         6.3%           Business and financial operations         4.2%         4.0%         5.3%           Construction and extraction         3.5%         4.9%         2.3%           Installation, maintenance, repair         3.3%         2.4%         3.0%           Healthcare practitioner and techs         2.9%         3.9%         4.9%           Community and social services         2.0%         2.3%         1.6%           Protective service         1.6%         1.6%         2.9%           Computer and mathematical         1.4%         1.6%         2.5%           Architecture and engineering         1.3%         1.3%         1.8%           Legal         0.6%         1.4%	Sales and related	11.2%	10.7%	10.2%
Production         6.5%         6.9%         6.6%           Food prep and serving related         6.3%         6.4%         8.4%           Personal care and service         6.1%         5.2%         2.3%           Transportation / material moving         5.6%         5.3%         7.1%           Arts/entertainment/sports/media         5.4%         7.8%         3.5%           Education, training and library         4.3%         4.6%         6.3%           Business and financial operations         4.2%         4.0%         5.3%           Construction and extraction         3.5%         4.9%         2.3%           Installation, maintenance, repair         3.3%         2.4%         3.0%           Healthcare practitioner and techs         2.9%         3.9%         4.9%           Healthcare support         2.6%         2.1%         2.7%           Community and social services         2.0%         2.3%         1.6%           Protective service         1.6%         1.6%         2.9%           Computer and mathematical         1.4%         1.6%         2.5%           Architecture and engineering         1.3%         1.3%         1.8%           Legal         0.6%         1.4%         0.0%	Management	7.8%	7.8%	5.6%
Food prep and serving related         6.3%         6.4%         8.4%           Personal care and service         6.1%         5.2%         2.3%           Transportation / material moving         5.6%         5.3%         7.1%           Arts/entertainment/sports/media         5.4%         7.8%         3.5%           Education, training and library         4.3%         4.6%         6.3%           Business and financial operations         4.2%         4.0%         5.3%           Construction and extraction         3.5%         4.9%         2.3%           Installation, maintenance, repair         3.3%         2.4%         3.0%           Healthcare practitioner and techs         2.9%         3.9%         4.9%           Healthcare support         2.6%         2.1%         2.7%           Community and social services         2.0%         2.3%         1.6%           Protective service         1.6%         1.6%         2.9%           Computer and mathematical         1.4%         1.6%         2.5%           Architecture and engineering         1.3%         1.3%         1.8%           Legal         0.6%         1.4%         1.0%           Life, physical and social science         0.4%         0.8% <td>Building/grounds cleaning/maint</td> <td>6.8%</td> <td>5.3%</td> <td>2.5%</td>	Building/grounds cleaning/maint	6.8%	5.3%	2.5%
Personal care and service         6.1%         5.2%         2.3%           Transportation / material moving         5.6%         5.3%         7.1%           Arts/entertainment/sports/media         5.4%         7.8%         3.5%           Education, training and library         4.3%         4.6%         6.3%           Business and financial operations         4.2%         4.0%         5.3%           Construction and extraction         3.5%         4.9%         2.3%           Installation, maintenance, repair         3.3%         2.4%         3.0%           Healthcare practitioner and techs         2.9%         3.9%         4.9%           Healthcare support         2.6%         2.1%         2.7%           Community and social services         2.0%         2.3%         1.6%           Protective service         1.6%         1.6%         2.9%           Computer and mathematical         1.4%         1.6%         2.5%           Architecture and engineering         1.3%         1.3%         1.8%           Legal         0.6%         1.4%         1.0%           Life, physical and social science         0.4%         0.8%         0.8%	Production	6.5%	6.9%	6.6%
Transportation / material moving $5.6\%$ $5.3\%$ $7.1\%$ Arts/entertainment/sports/media $5.4\%$ $7.8\%$ $3.5\%$ Education, training and library $4.3\%$ $4.6\%$ $6.3\%$ Business and financial operations $4.2\%$ $4.0\%$ $5.3\%$ Construction and extraction $3.5\%$ $4.9\%$ $2.3\%$ Installation, maintenance, repair $3.3\%$ $2.4\%$ $3.0\%$ Healthcare practitioner and techs $2.9\%$ $3.9\%$ $4.9\%$ Healthcare support $2.6\%$ $2.1\%$ $2.7\%$ Community and social services $2.0\%$ $2.3\%$ $1.6\%$ Protective service $1.6\%$ $1.6\%$ $2.9\%$ Computer and mathematical $1.4\%$ $1.6\%$ $2.5\%$ Architecture and engineering $1.3\%$ $1.3\%$ $1.8\%$ Legal $0.6\%$ $1.4\%$ $1.0\%$ Life, physical and social science $0.4\%$ $0.8\%$ $0.8\%$	Food prep and serving related	6.3%	6.4%	8.4%
Arts/entertainment/sports/media         5.4%         7.8%         3.5%           Education, training and library         4.3%         4.6%         6.3%           Business and financial operations         4.2%         4.0%         5.3%           Construction and extraction         3.5%         4.9%         2.3%           Installation, maintenance, repair         3.3%         2.4%         3.0%           Healthcare practitioner and techs         2.9%         3.9%         4.9%           Healthcare support         2.6%         2.1%         2.7%           Community and social services         2.0%         2.3%         1.6%           Protective service         1.6%         1.6%         2.9%           Computer and mathematical         1.4%         1.6%         2.5%           Architecture and engineering         1.3%         1.3%         1.8%           Legal         0.6%         1.4%         1.0%           Life, physical and social science         0.4%         0.8%         0.8%           Farming, fishing and forestry         0.3%         0.1%         0.1%	Personal care and service	6.1%	5.2%	2.3%
Education, training and library         4.3%         4.6%         6.3%           Business and financial operations         4.2%         4.0%         5.3%           Construction and extraction         3.5%         4.9%         2.3%           Installation, maintenance, repair         3.3%         2.4%         3.0%           Healthcare practitioner and techs         2.9%         3.9%         4.9%           Healthcare support         2.6%         2.1%         2.7%           Community and social services         2.0%         2.3%         1.6%           Protective service         1.6%         1.6%         2.9%           Computer and mathematical         1.4%         1.6%         2.5%           Architecture and engineering         1.3%         1.3%         1.8%           Legal         0.6%         1.4%         1.0%           Life, physical and social science         0.4%         0.8%         0.8%           Farming, fishing and forestry         0.3%         0.1%         0.1%	Transportation / material moving	5.6%	5.3%	7.1%
Business and financial operations         4.2%         4.0%         5.3%           Construction and extraction         3.5%         4.9%         2.3%           Installation, maintenance, repair         3.3%         2.4%         3.0%           Healthcare practitioner and techs         2.9%         3.9%         4.9%           Healthcare support         2.6%         2.1%         2.7%           Community and social services         2.0%         2.3%         1.6%           Protective service         1.6%         1.6%         2.9%           Computer and mathematical         1.4%         1.6%         2.5%           Architecture and engineering         1.3%         1.3%         1.8%           Legal         0.6%         1.4%         1.0%           Life, physical and social science         0.4%         0.8%         0.8%           Farming, fishing and forestry         0.3%         0.1%         0.1%	Arts/entertainment/sports/media	5.4%	7.8%	3.5%
Construction and extraction         3.5%         4.9%         2.3%           Installation, maintenance, repair         3.3%         2.4%         3.0%           Healthcare practitioner and techs         2.9%         3.9%         4.9%           Healthcare support         2.6%         2.1%         2.7%           Community and social services         2.0%         2.3%         1.6%           Protective service         1.6%         1.6%         2.9%           Computer and mathematical         1.4%         1.6%         2.5%           Architecture and engineering         1.3%         1.3%         1.8%           Legal         0.6%         1.4%         1.0%           Life, physical and social science         0.4%         0.8%         0.8%           Farming, fishing and forestry         0.3%         0.1%         0.1%	Education, training and library	4.3%	4.6%	6.3%
Installation, maintenance, repair         3.3%         2.4%         3.0%           Healthcare practitioner and techs         2.9%         3.9%         4.9%           Healthcare support         2.6%         2.1%         2.7%           Community and social services         2.0%         2.3%         1.6%           Protective service         1.6%         1.6%         2.9%           Computer and mathematical         1.4%         1.6%         2.5%           Architecture and engineering         1.3%         1.3%         1.8%           Legal         0.6%         1.4%         1.0%           Life, physical and social science         0.4%         0.8%         0.8%           Farming, fishing and forestry         0.3%         0.1%         0.1%	Business and financial operations	4.2%	4.0%	5.3%
Healthcare practitioner and techs         2.9%         3.9%         4.9%           Healthcare support         2.6%         2.1%         2.7%           Community and social services         2.0%         2.3%         1.6%           Protective service         1.6%         1.6%         2.9%           Computer and mathematical         1.4%         1.6%         2.5%           Architecture and engineering         1.3%         1.3%         1.8%           Legal         0.6%         1.4%         1.0%           Life, physical and social science         0.4%         0.8%         0.8%           Farming, fishing and forestry         0.3%         0.1%         0.1%	Construction and extraction	3.5%	4.9%	2.3%
Healthcare support         2.6%         2.1%         2.7%           Community and social services         2.0%         2.3%         1.6%           Protective service         1.6%         1.6%         2.9%           Computer and mathematical         1.4%         1.6%         2.5%           Architecture and engineering         1.3%         1.3%         1.8%           Legal         0.6%         1.4%         1.0%           Life, physical and social science         0.4%         0.8%         0.8%           Farming, fishing and forestry         0.3%         0.1%         0.1%	Installation, maintenance, repair	3.3%	2.4%	3.0%
Community and social services         2.0%         2.3%         1.6%           Protective service         1.6%         1.6%         2.9%           Computer and mathematical         1.4%         1.6%         2.5%           Architecture and engineering         1.3%         1.3%         1.8%           Legal         0.6%         1.4%         1.0%           Life, physical and social science         0.4%         0.8%         0.8%           Farming, fishing and forestry         0.3%         0.1%         0.1%	Healthcare practitioner and techs	2.9%	3.9%	4.9%
Protective service         1.6%         1.6%         2.9%           Computer and mathematical         1.4%         1.6%         2.5%           Architecture and engineering         1.3%         1.3%         1.8%           Legal         0.6%         1.4%         1.0%           Life, physical and social science         0.4%         0.8%         0.8%           Farming, fishing and forestry         0.3%         0.1%         0.1%	Healthcare support	2.6%	2.1%	2.7%
Computer and mathematical         1.4%         1.6%         2.5%           Architecture and engineering         1.3%         1.3%         1.8%           Legal         0.6%         1.4%         1.0%           Life, physical and social science         0.4%         0.8%         0.8%           Farming, fishing and forestry         0.3%         0.1%         0.1%	Community and social services	2.0%	2.3%	1.6%
Architecture and engineering         1.3%         1.3%         1.8%           Legal         0.6%         1.4%         1.0%           Life, physical and social science         0.4%         0.8%         0.8%           Farming, fishing and forestry         0.3%         0.1%         0.1%	Protective service	1.6%	1.6%	2.9%
Legal         0.6%         1.4%         1.0%           Life, physical and social science         0.4%         0.8%         0.8%           Farming, fishing and forestry         0.3%         0.1%         0.1%	Computer and mathematical	1.4%	1.6%	2.5%
Life, physical and social science0.4%0.8%0.8%Farming, fishing and forestry0.3%0.1%0.1%	Architecture and engineering	1.3%	1.3%	1.8%
Farming, fishing and forestry0.3%0.1%0.1%0.1%	Legal	0.6%	1.4%	1.0%
5 S	Life, physical and social science	0.4%	0.8%	0.8%
Total 100.0% 100.0% 100.0%	Farming, fishing and forestry	0.3%	0.1%	0.1%
	Total	100.0%	100.0%	100.0%

Sources: LAEDC; ESRI, 2005-09 ACS estimates

The occupational distribution of NELA's working residents is diverse, with 62.9 percent employed in white collar occupations such as office and administrative support, sales, management and professional occupations, 18.9 percent in blue collar occupations such as construction, production and transportation, and 18.2 percent in services.

Note that although 11.9 percent of working residents of NELA were employed in healthcare industries (see Exhibit 3-8), only 5.5 percent of working residents were in healthcare occupations. The remainder would have been other occupations (such as office, administrative, sales, building maintenance, food preparation and serving, and so on) that are employed in healthcare industries.



The largest occupational group of working residents of both NELA and Greater NELA is office and administrative support occupations. Workers in these occupations account for 18.5 percent of all employment in Los Angeles County in 2011, or 708,810 jobs, the largest occupational group by far. Sales and related occupations are held by the second largest proportion of working residents in both NELA and Greater NELA. At the county level, these occupations are the second largest group, accounting for ten percent of all jobs.

Working residents of both NELA and Greater NELA are more likely to be in arts, design, entertainment and media occupations, with 5.4 percent of working residents in NELA and 7.8 percent of working residents in Greater NELA employed in these occupations, compared to 3.5 percent of all working residents in the county. This is likely due to the proximity of NELA and Greater NELA to motion picture and television production activities occurring in Glendale and Burbank.

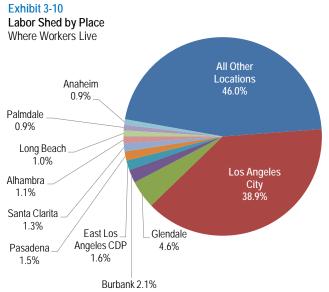
Other occupations which are more likely to be held by residents of NELA and Greater NELA than of the county overall include building and grounds cleaning and maintenance occupations, personal care and service occupations, and community and social service occupations. These occupations typically need lower levels of education and can be filled by workers who do not hold a high school diploma.

# 3.5 Commuters

From the examination of the occupations of working residents of NELA and Greater NELA and the industries in which they are employed, it is clear that the businesses in NELA and Greater NELA are not providing employment for all residents, nor are residents supplying much labor to local businesses.

In fact, businesses will employ people from across Los Angeles County and in neighboring counties as well. Approximately 80 percent of all jobs in NELA are filled by residents of Los Angeles County, 5.3 percent by residents of Orange County, 6.7 percent from the Inland Empire, and the remainder commutes to work in NELA from as far afield as Ventura County, Kern County, San Diego County and Santa Barbara County.

The geographic area from which workers commute to be employed at local businesses is called the *labor shed*. Exhibit 3-10 shows the labor shed for NELA's businesses by city (or place).



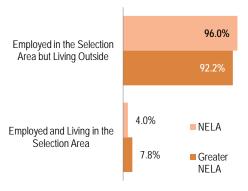
Sources U.S. Census Bureau, OnTheMap Application and LEHD Origin-Destination Employment Statistics

About 39 percent of jobs in NELA are held by residents of the City of Los Angeles. Other workers come from Glendale, Burbank, East Los Angeles, Pasadena, Santa Clarita, Alhambra and other neighboring cities. The labor shed for Greater NELA is similar to that for NELA, with 87 percent of workers living in Los Angeles County and 33 percent of workers living in the City of Los Angeles.

Related to the labor shed for employers is the *in-area employment efficiency*. This is a measure of how efficient the community is in providing workers for businesses located in the selection area.

Exhibit 3-11 displays the in-area employment efficiency for NELA and Greater NELA.

#### Exhibit 3-11 In-Area Employment Efficiency



Sources U.S. Census Bureau, OnTheMap Application and LEHD Origin-Destination Employment Statistics

For both geographic areas, the vast majority of the workers employed in the selection area reside outside the area. This indicates that there is a mismatch between the capabilities of the local labor force and local business needs, with either workers not able to find appropriate employment locally (at their desired wages) or businesses unable to find local residents with the appropriate skills and education levels offered at a wage level that business owners are willing to pay.

Because Greater NELA is larger than NELA in terms of land area, it has both a larger business base at which residents might be employed and a larger pool of potential workers from which businesses can choose. Still, only 7.8 percent of jobs in Greater NELA are held by area residents.



#### Demand for Labor 4

Demand for labor is generated by local and regional businesses. This is a function of the economic health of the local and regional economy and its expected growth, and of locational decisions made by growing businesses. These factors are examined in this section.

#### 4.1 Current Industry Employment

the potential for То investigate employment opportunities in NELA and Greater NELA, an understanding of existing employment is needed. In the previous section, the current industry employment of residents of both regions was presented. Here, we consider instead the industry employment offered by current businesses. This will allow us to determine the industrial composition of the local economies and their workforce needs.

The industrial distribution of employment in NELA, Greater NELA and Los Angeles County is shown in the Exhibit 4-1.

The composition of payroll employment across the three geographies is strikingly different. Los Angeles County reflects the national pattern of a largely service-oriented economy, and a government sector accounting for approximately 15 percent of all nonfarm employment (including local, state and federal government employment).

The relative size of the private sector in NELA and Greater NELA is comparable, but the distribution of employment between goods producing and service providing industries varies significantly. In NELA, almost 29 percent of nonfarm employment is in goods producing industries, compared to less than 10 percent in Greater NELA and 12.5 percent in the Los Angeles County. This comes at the expense of service providing industries, which account for 58 percent of employment in NELA compared to 77 percent in Greater NELA and almost 73 percent in Los Angeles County. Compared to the county, state and national industrial profiles, therefore, NELA is much more heavily concentrated in manufacturing industries.



Exhibit 4-1 Industrial Profile

(% of Total Employment)

	NELA	Greater NELA	Angeles County
Total Nonfarm Payroll Employment	100.0%	100.0%	100.0%
Good Producing Industries:	28.8%	9.7%	12.5%
Natural Resources and Mining	0.0%	0.1%	0.1%
Construction	5.8%	2.2%	2.7%
Manufacturing – Durable Goods	11.2%	2.0%	5.4%
Manufacturing – Nondurable Goods	11.8%	5.4%	4.3%
Service Providing Industries	58.0%	76.9%	72.6%
Wholesale Trade	5.1%	3.1%	5.5%
Retail Trade	12.3%	8.3%	10.3%
Transportation, Warehousing, Utilities	3.3%	3.2%	4.0%
Information	4.0%	3.9%	5.2%
Financial Activities	4.5%	7.1%	5.5%
Professional and Business Services	6.2%	12.5%	14.2%
Educational and Health Services	10.8%	23.0%	14.1%
Leisure and Hospitality	6.4%	12.0%	10.4%
Other Services	5.5%	3.9%	3.6%
Government	13.3%	13.4%	14.9%
Sources: California Employment Development [	Department: L	AEDC	

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To better examine the industry performance of the region, we segment larger industry sectors into their component industries. For example, health care and social assistance is a sector which includes: ambulatory health care services, such as physicians' offices; hospitals; nursing and residential care facilities; and social assistance, such as community food services, child day care services and emergency relief services.

Exhibit 4-2 shows the largest 30 industries in NELA as measured by employment in 2011, followed by Exhibit 4-3 showing the same for Greater NELA.

#### Exhibit 4-2

Top 30 Private Sector Industries by Employment in 2011 NELA

Industry	Employ- ment	% of total
Food Services and Drinking Places	1,127	5.6%
Social Assistance	1,056	5.3%
Specialty Trade Contractors	962	4.8%
Manufacturing: Computer and Electronic Products	912	4.6%
Ambulatory Health Care Services	788	4.0%
Repair and Maintenance	707	3.5%
Wholesale: Nondurable Goods	562	2.8%
Retail: Food and Beverage Stores	549	2.8%
Retail: General Merchandise Stores	528	2.6%
Professional and Technical Services	526	2.6%
Manufacturing: Fabricated Metal Products	523	2.6%
Manufacturing: Chemical Products	492	2.5%
Administrative and Support Services	488	2.4%
Manufacturing: Food Products	463	2.3%
Manufacturing: Beverage and Tobacco Products	438	2.2%
Manufacturing: Apparel	433	2.2%
Wholesale: Durable Goods	405	2.0%
Motion Picture and Sound Recording	378	1.9%
Retail: Miscellaneous Stores	335	1.7%
Retail: Building Material and Garden Supply	328	1.6%
Printing and Related Activities	303	1.5%
Rental and Leasing Services	286	1.4%
Educational Services	286	1.4%
Credit Intermediation	277	1.4%
Warehousing and Storage	274	1.4%
Couriers and Messengers	265	1.3%
Broadcasting (Except Internet)	259	1.3%
Real Estate	240	1.2%
Personal and Laundry Services	204	1.0%
Management of Companies and Enterprises	195	1.0%

Sources: California Employment Development Department; LAEDC

The largest private sector industry in terms of employment in NELA in 2011 was food services and drinking places, providing 1,127 jobs. This industry includes all food services, including full-service restaurants, fast food outlets, caterers, mobile food services, and drinking establishments.

The second largest industry was social assistance, providing 1,056 jobs, which includes child and youth services, marriage counseling services, family social services agencies, day care centers and preschools.

The third largest industry was specialty trade contractors, which includes companies providing services for building construction, such as pouring concrete, plumbing, painting and electrical work.

In addition to the private sector, however, both state government and local government agencies each provide more than 1,300 employment opportunities in NELA, making them significant employers.

The largest private sector industries in Greater NELA are shown in Exhibit 4-3.

#### Exhibit 4-3

Top 30 Private Sector Industries by Employment in 2011 Greater NELA

Industry	Employ- ment	% of total
Ambulatory Health Care Services	10,977	4.4%
Hospitals	10,488	4.2%
Food Services and Drinking Places	10,386	4.2%
Professional and Technical Services	7,822	3.1%
Administrative and Support Services	5,279	2.1%
Credit Intermediation	3,731	1.5%
Performing Arts and Spectator Sports	3,003	1.2%
Retail: Food and Beverage Stores	2,918	1.2%
Manufacturing: Food Products	2,914	1.2%
Social Assistance	2,908	1.2%
Motion Picture and Sound Recording	2,751	1.1%
Insurance Carriers	2,604	1.0%
Nursing and Residential Care Facilities	2,402	1.0%
Management of Companies	2,209	0.9%
Personal and Laundry Services	2,008	0.8%
Wholesale: Durable Goods	1,884	0.8%
Couriers and Messengers	1,868	0.7%
Specialty Trade Contractors	1,806	0.7%
Wholesale: Nondurable Goods	1,737	0.7%
Retail: Motor Vehicles and Parts	1,612	0.6%
Manufacturing: Chemical Products	1,561	0.6%
Educational Services	1,528	0.6%
Membership Associations and Orgs	1,393	0.6%
Repair and Maintenance	1,365	0.5%
Real Estate	1,288	0.5%
Manufacturing: Apparel	1,162	0.5%
Transit and Ground Passenger Transportation	1,152	0.5%
Broadcasting (Except Internet)	1,119	0.4%
Retail: Health and Personal Care	1,107	0.4%

Sources: California Employment Development Department; LAEDC

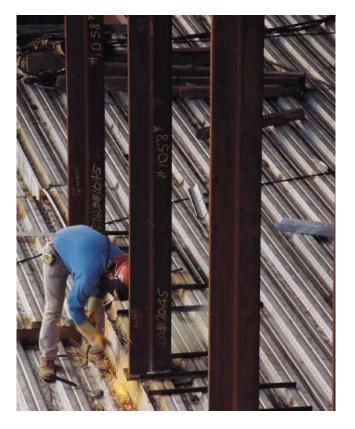
Here, two of the top three industries are ambulatory health care services, which are doctors' offices, clinics, dentists' offices, and HMO medical centers, and hospitals, which together provide almost 21,500 jobs in Greater NELA.

The third largest private sector industry was food services and drinking places, providing restaurant services to the local population.

The fourth and fifth largest industries are professional and technical services, providing 7,822 jobs, and administrative and support services, with 5,279 jobs in 2011.

As in NELA, however, government employment is significant. The Greater NELA region as we have defined it includes some locations in downtown, which are heavily concentrated in local, state and federal employment. The majority of local employment and all federal employment have been removed from the employment data since this is not representative of the larger region. Of the remaining government employment, state agencies employ more than 3,000 workers and local agencies provide more than 13,000 jobs, most of which are in education, health services and transportation industries.

A complete list of all industries in each region is provided in Exhibits A-1 and A-2 in the appendix.



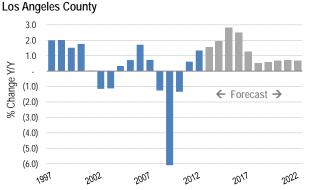
#### 4.2 Regional Industry Employment Forecast

Employment opportunities for residents of NELA and Greater NELA will depend not only on available positions in the local area but also in large part on the employment opportunities available in the larger region of Los Angeles County. As smaller geographies, both NELA and Greater NELA may have localized specializations but they will track the overall experience of the county during the next ten years. Here we present the industry employment forecast for Los Angeles County.

The contour of the nonfarm employment forecast for Los Angeles County is shown in Exhibit 4-4, along with the county's historical growth performance since 1997.

#### Exhibit 4-4

Change in Nonfarm Employment 1997-2022



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

The county's economy entered a severe recession in December of 2007, with an employment decline of 1.3 percent in 2008 and an additional 6.1 percent decline in 2009. Employment continued to fall in 2010 before beginning a recovery in 2011 with a year-over-year gain of 0.6 percent. Employment continued its anemic recovery in 2012, and uncertainty regarding the fiscal cliff negotiations and the implementation of sequestration cuts will weigh on the overall recovery in 2013.

However, employment growth will pick up in 2014, with a year-over-year gain of 1.9 percent, followed by 2.8 percent in 2015 and 2.5 percent in 2016. Employment growth will continue to be positive but will decelerate. Over the longer term, the economy in Los Angeles County is forecast to grow at its trend rate of approximately 0.6 percent.

Most industry sectors will follow this general contour of post-recession recovery followed by moderation. However, there are differences among industries. Recovery strength in many cases is determined by the magnitude of the industry's decline during the recession. For example, construction employment fell steeply in 2008, 2009 and 2010. Its recovery in the near term is expected to be much stronger than the average, as it recovers from these deep losses.

The expected experience in individual sectors at the county level is shown in Exhibit 4-5, followed by a discussion of each sector.

#### Exhibit 4-5 Industry Employment Growth 2012-2022 (Los Angeles County) Annual Δ Employment Average % Growth (000s) Total Nonfarm Payroll Employment 1.3% 541.7 Good Producing Industries: 0.7% 11.3 Natural Resources and Mining -1.1% -0.4 Construction 2.5% 30.1 Manufacturing - Durable Goods 0.4% 4.2 Manufacturing - Nondurable Goods -0.2% -5.4 Service Providing Industries 1.5% 195.3 Wholesale Trade 0.1% 1.8 Retail Trade 0.2% 7.4 Transportation, Warehousing, Utilities 0.6% 8.8 Information 1.3% 27.3 **Financial Activities** 1.8% 42.1 Professional and Business Services 2.4% 146.2 Educational and Health Services 2.0% 118.0 Leisure and Hospitality 2.1% 93.7 Other Services 0.7% 9.3 0.9% 52.8 Government Sources: California Employment Development Department; LAEDC

### Natural Resources and Mining:

Employment growth in natural resources and mining industries is expected to be negative, yielding overall employment losses between 2012 and 2022.



### Construction:

Construction industry employment experienced severe declines through 2011. Growth is expected to return in 2012 and will be robust in 2014 through 2016 as housing recovers to meet unleashed demand. New employment is projected increase by 30,000 between 2012 and 2022.

### Manufacturing:

Manufacturing employment will continue its long-term decline in the county. *Durable goods manufacturing* will experience anemic growth as labor substitution and replacement by capital increases output at the expense of employment gains. *Nondurable goods manufacturing* will continue its long-term decline as low-cost competition from lower income countries will drive these industries from the area. Together, there will be a loss of 1,200 jobs between 2012 and 2022.

### Wholesale Trade:

Wholesale trade employment, which has been relatively flat since 2000, recovered in 2011 but is forecast to remain challenged, adding only 1,800 new jobs between 2012 and 2022 in Los Angeles County.

### Retail Trade:

Similarly, retail trade activity in Los Angeles will be lackluster through the forecast period reflecting subdued consumer spending. Sector employment is forecast to add 7,400 new jobs between 2012 and 2022.

### Transportation, Warehousing and Utilities:

The transportation, warehousing and utilities sector will experience little employment growth over the forecast period, adding 8,800 new jobs from 2012 through 2022.

### Information:

Employment in the information sector, which includes motion picture production, broadcasting, publishing and the new media industries, will see healthy growth over the forecast period due to the increased employment generated by filming activities responding to the California Film and Television Tax Credit Program. Several other industries in this sector will be impacted by changing technology and consumer behavior. Overall, employment in the information sector is forecast to add 27,300 new jobs between 2012 and 2022.

### Financial Services:

Many of the services in the financial activities sector are related to the housing and construction markets which suffered significant declines during the recession and have been faltering during the recovery. The sector is expected to rebound with the recovery in the housing market and is projected to add 42,100 new jobs between 2012 and 2022.

### Professional and Business Services:

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 these firms provide services to other businesses in Los Angeles County. Employment in the sector is forecast to add more than 146,000 new jobs between 2012 and 2022.

### **Education and Health Services:**

Industries in the education and health services sector are expected to grow at a healthy pace. Private education is growing strongly in Los Angeles, and the continued growth in the region's population and its aging, combined with advances in medical technology and increased coverage through the Affordable Care Act, means local demands for health care will increase substantially. Employment in the sector will add 118,000 new jobs between 2012 and 2022.

### Leisure and Hospitality:

The leisure and hospitality sector will show better-thanaverage growth over the forecast period, adding 93,700 new jobs between 2012 and 2022.

### Government:

Budget constraints will continue to restrict the growth of government employment to that of population growth. Still, government will add 52,800 new jobs between 2012 and 2022.

### 4.3 Local Industry Employment Forecast

Combining the current industrial composition of NELA and Greater NELA, and applying the projected industry growth over the next ten years, we derive a forecast for industry employment in NELA and Greater NELA, which are presented in Exhibit 4-6.

#### Exhibit 4-6

Industry Employment Growth 2012-2022 (Δ Employment)

	NELA	Greater NELA
Total Nonfarm Payroll Employment	2,508	20,695
Good Producing Industries:	523	950
Natural Resources and Mining	-1	-11
Construction	372	835
Manufacturing – Durable Goods	173	146
Manufacturing – Nondurable Goods	-21	-20
Service Providing Industries	1,665	17,840
Wholesale Trade	-7	-38
Retail Trade	8	52
Transportation, Warehousing, Utilities	42	261
Information	89	653
Financial Activities	174	2,038
Professional and Business Services	346	4,101
Educational and Health Services	622	6,763
Leisure and Hospitality	339	3,644
Other Services	52	364
Government	320	1,905
Source: Estimates by LAEDC		

Source: Estimates by LAEDC

Overall, NELA is projected to add 2,508 new jobs from 2012 through 2022, and Greater NELA will add 20,695 jobs.

The largest numbers of jobs will be added in service providing industries, such as educational and health services, leisure and hospitality, and professional and business services. This is a consequence of these industries being large and continuing to grow.



Construction will add the second largest jobs over ten years as it rebounds from catastrophic losses during the recession.

Three industry sectors are projected to shrink: natural resources and mining, nondurable goods manufacturing and wholesale trade. Nondurable goods manufacturing has been on a long term sectoral decline, although the region still demonstrates competitive strength in some industries, as seen in following sections. Wholesale trade in the larger region will grow quite slowly, and in NELA and Greater NELA in particular will face spatial constraints so will be unable to add jobs over the projection period.



### 4.4 Commercial and Industrial Land Use

The character of a region is defined by its land use. A bedroom community is zoned almost entirely for residential purposes, with commercial land available only to allow the provision of goods and services to local residents, such as retail stores, gas stations, restaurants, schools, personal care services, medical services, and so on. Residents of bedroom communities who work typically commute to jobs in other cities, sometimes at significant distances from home.

An industrial city chooses to allocate its land for businesses engaged in manufacturing, assembling goods, wholesale activities, transportation, warehousing, and so on.

The nature of such businesses may not be amenable to residents, and zoning is used to protect the peace and tranquility of residents by providing a buffer zone.

Some cities may restrict residential land uses to capitalize on the synergies and agglomeration effects developed through concentration of industry within their geographic borders. Such concentrations of industry can be significant sources of employment opportunities. An examination of the potential for a region to provide such employment opportunities must therefore necessarily focus on available land use.

Exhibit 4-7 displays commercial and industrial land use by type and square footage in NELA and Greater NELA.

Commercial zoning allows a range of activities, including retail, office buildings, restaurants, banks, hospitals and clinics, sports facilities, race tracks, amusement parks, movie theaters, hotels, government offices, schools, police and fire stations, and places of worship.

Industrial uses are differentiated between light industrial and heavy industrial. Light industrial uses includes not only the light manufacturing and packaging that it suggests, but also motion picture and television studio lots and research and development activities including laboratories. Heavy industrial uses are those that involve raw material processing and therefore can be associated with wastes such as smoke, dust, liquid effluent and noise. The last category of heavy industrial is extraction, which is mining, and oil and gas drilling.

Not represented in the exhibit is wholesaling and warehousing, which does not have a presence in NELA.

### Exhibit 4-7

Commercial and Industrial Land Use by Type

	NELA_		Greater NELA	
	Sq Ft (mil)	% of Total	Sq Ft (mil)	% of Total
Commercial Land:			. ,	
Commercial and Service	2.4	1.8%	41.0	3.7%
General Office Use			3.1	0.3%
Retail Stores and Services	1.5	1.2%	165.8	15.1%
Other Commercial	1.4	1.1%	22.4	2.0%
Special Use Facilities			0.2	0.0%
Educational Institutions	13.7	10.5%	38.1	3.5%
Total Commercial	19.0	14.6%	270.5	24.6%
Industrial Land:				
Light Industrial	11.4	8.7%	17.0	1.6%
Heavy Industrial	9.9	7.6%	12.8	1.2%
Extraction	8.7	6.7%	39.9	3.6%
Total Industrial	29.9	23.0%	69.7	7.5%
Mixed Commercial / Industrial	13.2	10.2%	14.8	1.4%
Commercial / Industrial Land Area	62.2	47.8%	355.1	32.3%
Sources: LA Countratide Zening, LAED		47.070	333.1	JZ.J /0

Sources: LA Countywide Zoning, LAEDC

Approximately 48 percent of the land in NELA is zoned for commercial and industrial uses, much higher than in Greater NELA where 32 percent of land is zoned for commercial and industrial uses. Both regions, however, have a much higher proportion of this zoning than the county, where land zoned for commercial and industrial uses account for approximately 9.2 percent of all land.

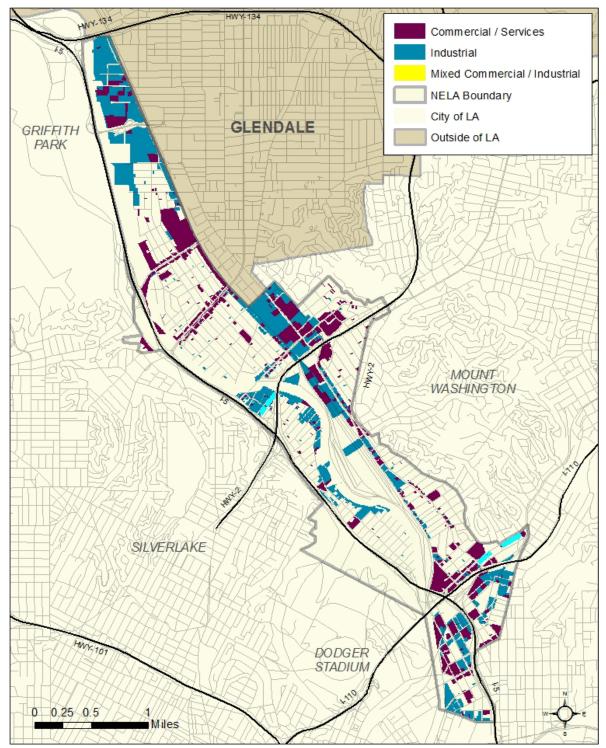
Education has a significant presence in NELA, occupying close to 14 percent of the overall land area, while retail occupies 15 percent of land in Greater NELA, an order of magnitude larger than in NELA.

However it is in industrial land use that NELA differentiates itself, allocating 23 percent of its land to such uses compared to 7.5 percent in Greater NELA and approximately 4 percent in the county overall. This prioritization of industry suggests that NELA is a region that accommodates businesses which provide employment opportunities for its own residents and those of surrounding regions.

Spatial representation of commercial and industrial land zoning in NELA and Greater NELA are shown below.

### Exhibit 4-8

NELA Commercial and Industrial Areas

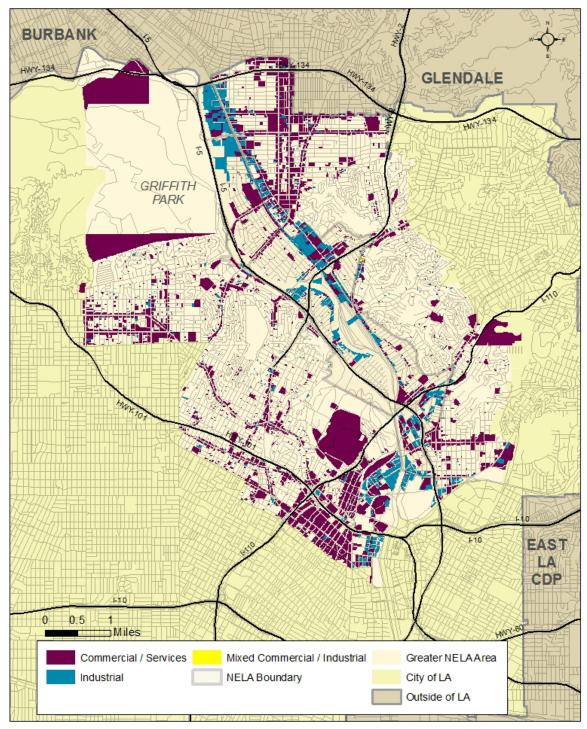


Sources: LA Countywide Zoning, LAEDC



### Exhibit 4-9

Greater NELA Commercial and Industrial Areas



Sources: LA Countywide Zoning, LAEDC

## 5 Target Industries

Research into the local labor market and industry employment projections can be combined with other metrics to provide an indication of whether an industry has the potential to be an attractive target for job retention and expansion. For example, employment growth rates indicate whether an industry is expected to grow in the region. In this section, we add two additional metrics to our evaluation criteria: the competitiveness of local industries, and their job creation potential.

### 5.1 Industry Competitiveness

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 NELA and Greater NELA. For example, it is possible that an industry has significant job creation potential in Los Angeles County but does not maintain a large presence in NELA (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 NELA that is larger (as a percentage of total employment in NELA) than its presence in Los Angeles County would indicate that NELA has a concentration of this industry, is evidenced at having a competitive advantage and thus may have the potential for higher employment creation. Such relative concentration is measured by location quotients. A location quotient for an industry in NELA shows the percentage of total employment in an industry NELA compared to the percentage in Los Angeles County (or other reference region). For example, if 4 percent of employment in NELA is in the motion picture industry, while in Los Angeles County only 2 percent is employed in the motion picture industry, then the location quotient for the motion picture industry in NELA is 2. This means that NELA is relatively more specialized in motion pictures than the county as a whole. A location quotient of 1 would indicate that the local industry concentration is identical to that of the larger region.

Exhibit 5-1 shows the top 30 industries in NELA by their 2011 employment location quotients compared to Los Angeles County and compared to the nation. This allows



us to see not only how NELA performs compared to the same industries in Los Angeles County, but also to see if there are any specific industries which are stronger in NELA compared to the national average that perhaps do not do well in other areas of Los Angeles County. All industries with a location quotient of greater than 1 (referenced against Los Angeles County) are shown in the exhibit.

The industry with the highest location quotient in NELA in 2011 was beverage and tobacco products manufacturing. This would include such companies as the San Antonio Winery, a popular tourist destination, and the Eagle Rock Brewery.

The second most concentrated industry in NELA was textile product mills, which would include companies such as G.A. Gertmenian & Sons.

The industry with the third highest location quotient in NELA in 2011 was chemical products manufacturing, which includes many smaller manufacturers of industrial cleaning products in the area.



#### Exhibit 5-1

Top Competitive Industries in NELA

(Location Quotients v. Los Angeles County and US)

Industry	LAC	US
Manufacturing: Beverage and tobacco products	17.0	15.4
Manufacturing: Textile product mills	7.1	7.9
Manufacturing: Chemical products	5.1	4.1
Mining (excluding oil and gas)	4.7	3.1
Manufacturing: Computer and electronic products	4.0	5.4
Repair and maintenance	3.9	3.9
Manufacturing: Wood products	3.9	1.2
Printing and related activities	3.7	4.2
Warehousing and storage	3.5	2.7
Social assistance	3.5	2.7
Rental and leasing services	3.0	3.7
Retail: Building material and garden supply	2.8	1.9
Couriers and messengers	2.8	3.3
Specialty trade contractors	2.8	1.8
Broadcasting (except internet)	2.7	5.9
Retail: Miscellaneous Stores	2.6	2.8
Manufacturing: Fabricated metal products	2.5	2.5
Manufacturing: Machinery	2.3	1.2
Manufacturing: Primary metal products	2.3	1.4
Manufacturing: Food products	2.3	2.1
Manufacturing: Textile mills	2.1	3.9
Manufacturing: Apparel	1.9	18.6
Retail: Nonstore retailers	1.7	1.3
Manufacturing: Miscellaneous	1.7	1.8
Manufacturing: Nonmetallic mineral products	1.7	0.7
Retail: General merchandise stores	1.5	1.1
Retail: Sporting goods, hobby, book and music	1.5	1.4
Manufacturing: Plastics and rubber products	1.4	1.0
Construction of buildings	1.3	0.9
Retail: Food and beverage stores	1.2	1.3
Wholesale: Nondurable goods	1.2	1.9

Sources: California Employment Development Department; LAEDC

The exhibit presents competitive industries with respect to Los Angeles County (i.e., with a location quotient greater than 1). However, there may by industries in NELA that are not competitive with respect to the county but that are with respect to the nation. This will occur when the industry at the county level is already competitive with respect to the nation and any representation of the industry in NELA is simply a component thereof.

Motion picture and sound recording industries is one such industry. With respect to the nation, NELA's industry has a location quotient of 6.7, which is significantly more concentrated here than the national average.

Note also that although apparel manufacturing, is more highly concentrated in NELA than in the county (with a

location quotient of 1.9), it is especially higher than the nation (location quotient of 18.6), implying that growth of this industry in the county overall, as well as its potential decline, will more likely impact NELA than other areas of the county.

Exhibit 5-2 shows the top competitive industries in Greater NELA by their 2011 employment location quotients compared to Los Angeles County and compared to the nation.

#### Exhibit 5-2 Top Competitive Industries in Greater NELA (Location Quotients v. Los Angeles County and US) LAC US Industry Mining (except oil and gas) 3.1 0.2 Performing arts and spectator sports 1.5 3.7 Couriers and messengers 1.5 1.8 Hospitals 1.4 1.1 Transit and ground passenger transportation 1.4 1.3 Museums, historical sites, zoos and parks 1.3 1.4 Funds, Trusts and other financial vehicles 1.3 1.1 Manufacturing: Chemical products 1.2 1.0 Manufacturing: Food products 1.1 1.0

Sources: California Employment Development Department; LAEDC

Because Greater NELA is a larger area, its industrial base is more diverse and hence more similar to Los Angeles County (and therefore has fewer competitive industries).

The industry with the highest location quotient in Greater NELA with respect to the county is mining, reflecting the presence of Vulcan Materials, Pacific Custom Materials and Braniff Corporation in the region. Other competitive industries include performing arts and spectator sports, couriers and messengers and hospitals.

Industry that do not appear in the exhibit include motion picture and sound recording, apparel manufacturing, and broadcasting, which as above are quite competitive with respect to the nation (with location quotients of 3.7, 3.8 and 1.9, respectively) but not with respect to the county.

A complete list of all industries in each region is provided in Exhibits A-3 and A-4 in the appendix.

### 5.2 Job Creation Potential

In addition to projected growth rates of industries and industry sectors, the current size of the industry in the region is an important determinant of the potential for job creation. A small industry growing quickly may add jobs but the absolute number of jobs created will be smaller than a large industry growing slowly.

The job creation potential of industries in Los Angeles County is shown in Exhibit 5-3. This is a consequence of two factors: the size of the industry and its expected growth. A small industry such as leather and allied products manufacturing may grow quickly but will add few jobs because it is a very small industry, while a larger industry growing more slowly has the potential of adding more jobs.

#### Exhibit 5-3

Projected New Job Creation in Los Angeles County 2012-2022 Top 25 Private Industries

Industry	∆ Jobs
Health care and social assistance	96,220
Administrative, support, waste management	93,630
Accommodation and food services	84,370
Professional, scientific and technical services	48,140
Finance and insurance	31,960
Motion pictures and sound recording	27,000
Educational services	21,770
Specialty trade contractors	21,340
Real estate, rental and leasing	10,150
Arts, entertainment and recreation	9,330
Transportation and warehousing	8,260
Retail: General merchandise stores	6,400
Wholesale electronic markets	6,290
Retail: Clothing stores	5,120
Manufacturing: Computer / electronic products	5,080
Construction of buildings	4,770
Heavy and civil engineering	4,750
Management of companies	4,420
Personal and laundry services	4,240
Religious, civic and professional organizations	4,220
Manufacturing: Fabricated metal products	3,540
Other information services	2,880
Retail: Food and beverage stores	2,630
Retail: Nonstore retailers	1,840
Retail: Health and personal care stores	1,610
Source: Estimates by LAEDC	

Source: Estimates by LAEDC

The industry with the largest expected employment gains is health care and social assistance, which is forecast to add 96,220 jobs across Los Angeles County. It is the largest private sector industry in Los Angeles County, has one of the highest expected growth rates, therefore it is not surprising to see that it tops the list of job creation projections.

The industry with the second largest job creation potential is the administrative, support and waste management industry, expected to add 93,630 jobs between 2012 and 2022, followed by accommodation and food services, which is forecast to add 84,370 jobs during the same period. Both of these are also large, high growth industries.

Fourth on the list is the professional, scientific and technical services industry, another large industry with relatively-high growth potential. Also represented in the list, however, are finance and insurance, motion pictures, real estate, educational services, construction, and two manufacturing industries that are smaller in scale but will experience some growth over the forecast period.

Taken together, these twenty-five industries are expected to add more than 500,000 jobs during the period from 2012 to 2022 in Los Angeles County.

Some of these jobs will be added in NELA and Greater NELA. Projected job creation in the region is shown in Exhibit 5-4.

#### Exhibit 5-4

Projected New Job Creation in NELA 2012-2022 Private industries

Industry	∆ Jobs
Specialty trade contractors	330
Food services and drinking places	313
Social assistance	270
Administrative and support services	211
Ambulatory health care services	201
Manufacturing: Computer and electronic products	109
Professional and technical services	108
Motion picture and sound recording	87
Credit intermediation	70
Educational services	54
Retail: General merchandise stores	54
Manufacturing: Fabricated metal products	50
Rental and leasing services	43
Real estate	36
Manufacturing: Chemical products	35
Source: Estimates by LAEDC	

Source: Estimates by LAEDC

The industry with the largest number of new jobs to be added during the forecast period is specialty trade contractors, which include companies that provide specific work involved in building construction, such as



plumbing, painting, concrete pouring, electrical work, etc. This industry supports not only new construction but is also of course heavily involved in remodeling, reconstruction and upgrades of existing buildings.

Other industries which will add new jobs in NELA include food services and drinking places, social assistance, administrative and support services and ambulatory health care services. These are all large population-serving industries which will add jobs in keeping with population growth.

In addition to private sector industries, local and state government agencies are projected to add approximately 300 jobs, many of which will be in educational services and in ground transportation services.

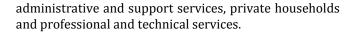
Projected private sector job creation in Greater NELA is shown in Exhibit 5-4.

#### Exhibit 5-4

Projected New Job Creation in Greater NELA 2012-2022 Private industries

Industry	∆ Jobs
Food services and drinking places	2,881
Ambulatory health care services	2,804
Hospitals	2,679
Administrative and support services	2,279
Professional and technical services	1,609
Credit intermediation	946
Social assistance	743
Insurance carriers	660
Motion picture and sound recording	636
Specialty trade carriers	620
Nursing and residential care facilities	613
Performing arts and spectator sports	457
Educational services	289
Personal and laundry services	210
Accommodation	200
Real estate	194
Management of companies and enterprises	194
Construction of buildings	169
Couriers and messengers	123
Securities, commodity contracts and investments	123
Membership associations and organizations	120
Manufacturing: Chemical products	111
Retail: General merchandise stores	106
Sources: Estimates by LAEDC	

The industries with the largest number of new jobs to be added in Greater NELA during the forecast period are large population-serving industries such as food services, ambulatory health care, hospitals,



In addition to private sector industries, government agencies are projected to add 1,500 jobs, primarily in transportation and educational services.

A complete list of all industries for each region is provided in Exhibits A-5 and A-6 in the appendix.

### 5.3 Identifying Target Industries

The metrics described above (size of industry, job creation potential, and competiveness) are used to identify industries as the most promising targets for job retention and expansion activities in NELA and Greater NELA. These are presented in exhibit 5-5 (by NAICS code), and discussed individually below.

Exhibit 5-5 Target Industries	NAICS
Residential building construction	236
Heavy and civil engineering construction	237
Specialty trade contractors	238
Manufacturing: Beverages and tobacco products	312
Manufacturing: Textile mills	313
Manufacturing: Apparel	315
Manufacturing: Leather and allied products	316
Manufacturing: Fabricated metal products	332
Manufacturing: Computer and electronic products	334
Motion pictures and sound recording industries	512
Broadcasting	515
Other information services	519
Professional and technical services	541
Administrative and support services	562
Ambulatory health care services	621
Hospitals	622
Nursing and residential care facilities	623
Accommodation	721
Food services and drinking places	722

### Health 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. This sector employed almost 360,000 workers in Los Angeles County in 2011, almost 24,000 in Great NELA and more than 800 in NELA, and is projected to add 6,100 jobs in Greater NELA by 2022. Average earnings in the sector were \$54,500 in Los Angeles County. These are large industries with high growth potential given the ongoing demographic shift, the advancement of medical technology and increased coverage through the American Care Act. The Greater NELA has a strong representation of this industry and continued development is strongly indicated.

### Manufacturing (Selected Products)

Although employment in manufacturing as a whole has been on a long term decline over the past two decades, several manufacturing industries appear to be promising targets for employment growth in NELA and Greater NELA based on upon their performance. These include: beverages and tobacco; textile mills; and, to some extent, fabricated metals. The expected retirement of aging skilled craftsman in some specialized manufacturing industries presents opportunities for apprenticeships, new entrants, and those moving up the career ladder. Boutique breweries will enhance the expected revitalization of the area and its hospitality and tourism potential. The current regional strengths of small business enterprises engaged in artisan craft work such as in apparel, textiles and fabricated metal contribute to the attractiveness of these industries for targeting.

### Administrative and Support Services

Establishments in this industry provide support to the day-to-day operations for other organizations, such as management, personnel, clerical activities and cleaning activities. The sector is expected to continue growing and will add 93,600 new jobs in Los Angeles County as businesses follow the trend of contracting with outside services for administrative and support services rather than conducting them in house. A wide variety of occupations in the sector can be filled by job seekers with community college degrees or technical training.

### **Professional and Technical Services**

These industries include establishments that specialize in performing professional and technical activities for others, such as legal services, accountants, bookkeepers and auditors, architectural and engineering services, interior and industrial design, computer design ad programming, management and environmental



consulting, advertising and market research. These activities typically require a high degree of expertise and training, and can be highly-compensated.

### Food Services

This is a large industry with a wide range of establishments serving food and beverages to customers. They include full-service restaurants, limited-service eating places, food service contractors (such as caterers), mobile food services, and drinking places. The industry is integral to tourism, and as the region develops the amenity value of the river, local eating establishments will be featured, making this an industry to target for development.

### Entertainment Industry

The entertainment industry maintains a significant presence in Los Angeles County, as well as in Greater NELA. This industry includes not only film and television production, but also sound recording industries, preand postproduction work, performing arts, independent artists and performers, and art galleries and museums. Additionally, several supportive manufacturing firms are in the NELA and Greater NELA area, including Technicolor, DX Communications, CMH Records and many smaller firms. These together form a critical mass of creative industries and workers, which together become a magnet for businesses engaged in supporting and encouraging entertainment. As revitalization of the NELA region continues, and the central relationship of the river takes hold, the region has the potential to become a center of artisanal and cultural life. 💠





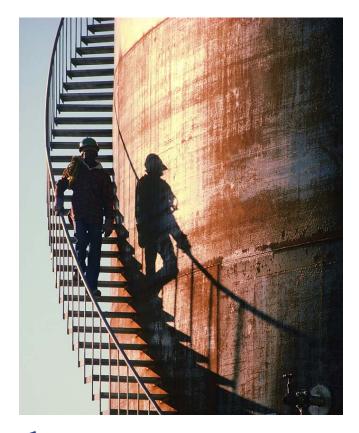
# OCCUPATIONAL ANALYSIS

## 6 Occupational Analysis

Understanding how industries are expected to grow or decline and estimating their job creation potential provides one aspect of the overall workforce needs. The more important aspect, however, is the composition of those expected jobs and their educational attainment and skills needs. In this section, we convert industry job creation projections into occupational projections.

### 6.1 Current Occupational Profile

Occupations are commonly classified using the Standard Occupational Classification (SOC) system, developed by the Bureau of Labor Statistics. This system classifies all workers into one of 840 detailed occupations with similar job duties, skills, education and training. These detailed occupations are not generally industry-specific but are common to many industries. For example, retail salespersons are employed in a full spectrum of industries.



Detailed occupations are aggregated into 23 major groups, which include broad descriptive categories such as production occupations, management occupations and business and financial operations occupations.

The occupational profile of NELA, Greater NELA and Los Angeles County are shown in Exhibit 6-1.

Exhibit 6-1			
Occupational Profile			
(% of Employment)			
Occupational Group	NELA	Greater NELA	Los Angeles County
Management occupations	5.2%	4.7%	5.6%
Business and financial operations	3.9%	5.0%	5.3%
Computer and mathematical science	2.3%	2.6%	2.5%
Architecture and engineering	2.2%	1.4%	1.8%
Life, physical and social science	0.7%	0.8%	0.8%
Community and social services	1.8%	2.0%	1.6%
Legal occupations	0.5%	0.9%	1.0%
Education, training and library Arts, design, entertainment, sports,	6.2%	3.0%	6.3%
media	2.2%	2.5%	3.5%
Healthcare practitioners and technical	2.5%	9.2%	4.9%
Healthcare support	1.6%	4.3%	2.7%
Protective services	1.9%	3.0%	2.9%
Food preparation and serving Building/grounds cleaning and	7.0%	9.7%	8.4%
maintenance	2.2%	2.8%	2.5%
Personal care and service	3.7%	4.1%	2.3%
Sales and related	12.0%	8.5%	10.2%
Office and administrative support	16.1%	17.9%	18.5%
Farming, fishing and forestry	0.2%	0.1%	0.1%
Construction and extraction	4.6%	2.2%	2.3%
Installation, maintenance and repair	5.7%	3.4%	3.0%
Production	13.2%	5.5%	6.6%
Transportation/material moving	8.8%	6.3%	7.1%
Total	100.0%	100.0%	100.0%
Sources: BLS: Occupational Employment Stati	stics Survev, N	lav 2011: LAE[	C

Sources: BLS: Occupational Employment Statistics Survey, May 2011; LAEDC

The occupational composition of workers in the three regions are broadly similar, but as a percentage of all workers, but there are far more healthcare practitioners and healthcare support personnel in Greater NELA than the county or NELA. NELA has a higher concentration of workers in production, many of which are employed in manufacturing industries, and of workers in sales and related occupations.

### 6.2 Projected Occupational Needs

The growth of industries in the region will precipitate the growth of particular occupations. The overall net growth of an occupation is a consequence of its contribution to industries that are growing and to industries that are declining. This may result in an occupation experiencing no or little growth as workers that had been employed in a failing industry shift to similar roles in industries that are growing, or as workers in certain occupations are replaced with improved technologies or processes.

In addition to the growth and decline of industries, workers within industries leave current positions, either through retirement or through promotion, or for other reasons, leaving positions open and in need of replacement. Replacement trends depend on several factors. The age profile of the existing workforce can portend high replacement rates, such as occurs in many manufacturing industries as highly-skilled craftsmen are reaching retirement age and younger workers have not been trained or received apprenticeships to replace them, Occupations that enable current workers to gain valuable skills through on-the-job training will encourage them to move into higher-skilled occupations and leave jobs opening for those with less experience. Industries that are undergoing technological change may find that new processes require fewer workers, leaving fewer openings available as workers retire or leave for other positions.

The Census Bureau estimates replacement needs by industry and occupation through detailed surveys of employers and households. These take into account industry changes, the age of the current workforce within each industry and occupation, and the nature of the career path. These estimates are an important component of occupational job openings and workforce development needs, since the retirement and promotion of individuals leave openings for newer entrants and those moving up the career ladder to assume.

Projected new openings are calculated by applying the industry occupational composition to the detailed industry employment forecast. In this analysis, the base employment year is 2011, the most recent year for which complete employment data is available. These are aggregated across industries.

Projected openings by major occupational group are presented in Exhibits 6-2 and 6-3.

The largest number of overall openings for both regions will occur in the largest occupational groups, such as office and administrative support occupations, food preparation and serving occupations, and healthcare occupations (practitioners, technicians and support). Other occupations that will provide large number of openings are personal care occupations, sales occupations, and transportation and material moving occupations.

Ponlaco.

#### Exhibit 6-2

#### Occupational Growth in NELA 2012-2022 (Δ Employment)

Management occupations123234357Business and financial operations102169271Computer and mathematical science5587142Architecture and engineering44106150Life, physical and social science174159Community and social services7285156Legal occupations151833Education, training and library232289521Arts, design, entertainment, sports, media50123172Healthcare practitioners and technical102107209Healthcare support7348121Protective services58102161Food preparation and serving325549875Building/grounds cleaning and maintenance91102193Personal care and service141194334Sales and related83786869Office and administrative support3797311,109Farming, fishing and forestry11112Construction and extraction250211461Installation, maintenance and repair76270346Production76518594594Transportation/material moving111475585	Occupational Group	New Openings	ment Jobs	Total Openings
Computer and mathematical science5587142Architecture and engineering44106150Life, physical and social science174159Community and social services7285156Legal occupations151833Education, training and library232289521Arts, design, entertainment, sports, media50123172Healthcare practitioners and technical102107209Healthcare support7348121Protective services58102161Food preparation and serving325549875Building/grounds cleaning and maintenance91102193Personal care and service141194334Sales and related83786869Office and administrative support3797311,109Farming, fishing and forestry11112Construction and extraction250211461Installation, maintenance and repair76270346Production76518594111Arts585518594518	Management occupations	123	234	357
Architecture and engineering44106150Life, physical and social science174159Community and social services7285156Legal occupations151833Education, training and library232289521Arts, design, entertainment, sports, media50123172Healthcare practitioners and technical102107209Healthcare support7348121Protective services58102161Food preparation and serving325549875Building/grounds cleaning and maintenance91102193Personal care and service141194334Sales and related83786869Office and administrative support3797311,109Farming, fishing and forestry11112Construction and extraction250211461Installation, maintenance and repair76270346Production76518594Transportation/material moving111475585	Business and financial operations	102	169	271
Life, physical and social science174159Community and social services7285156Legal occupations151833Education, training and library232289521Arts, design, entertainment, sports, media50123172Healthcare practitioners and technical102107209Healthcare support7348121Protective services58102161Food preparation and serving325549875Building/grounds cleaning and maintenance91102193Personal care and service141194334Sales and related83786869Office and administrative support3797311,109Farming, fishing and forestry11112Construction and extraction250211461Installation, maintenance and repair76270346Production76518594Transportation/material moving111475585	Computer and mathematical science	55	87	142
Community and social services7285156Legal occupations151833Education, training and library232289521Arts, design, entertainment, sports, media50123172Healthcare practitioners and technical102107209Healthcare support7348121Protective services58102161Food preparation and serving325549875Building/grounds cleaning and maintenance91102193Personal care and service141194334Sales and related83786869Office and administrative support3797311,109Farming, fishing and forestry11112Construction and extraction250211461Installation, maintenance and repair76270346Production76518594Transportation/material moving111475585	Architecture and engineering	44	106	150
Legal occupations151833Education, training and library Arts, design, entertainment, sports, media50123172Healthcare practitioners and technical102107209Healthcare support7348121Protective services58102161Food preparation and serving Building/grounds cleaning and maintenance91102193Personal care and service141194334Sales and related83786869Office and administrative support3797311,109Farming, fishing and forestry11112Construction and extraction250211461Installation, maintenance and repair76270346Production76518594Transportation/material moving111475585	Life, physical and social science	17	41	59
Education, training and library Arts, design, entertainment, sports, media232289521Arts, design, entertainment, sports, media50123172Healthcare practitioners and technical102107209Healthcare support7348121Protective services58102161Food preparation and serving maintenance325549875Building/grounds cleaning and maintenance91102193Personal care and service141194334Sales and related83786869Office and administrative support3797311,109Farming, fishing and forestry11112Construction and extraction250211461Installation, maintenance and repair76270346Production76518594Transportation/material moving111475585	Community and social services	72	85	156
Arts, design, entertainment, sports, media50123172Healthcare practitioners and technical102107209Healthcare support7348121Protective services58102161Food preparation and serving maintenance325549875Building/grounds cleaning and maintenance91102193Personal care and service141194334Sales and related83786869Office and administrative support3797311,109Farming, fishing and forestry11112Construction and extraction250211461Installation, maintenance and repair76270346Production76518594Transportation/material moving111475585	Legal occupations	15	18	33
media50123172Healthcare practitioners and technical102107209Healthcare support7348121Protective services58102161Food preparation and serving Building/grounds cleaning and maintenance325549875Building/grounds cleaning and maintenance91102193Personal care and service141194334Sales and related83786869Office and administrative support3797311,109Farming, fishing and forestry11112Construction and extraction250211461Installation, maintenance and repair76270346Production76518594Transportation/material moving111475585		232	289	521
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Personal care and service141194334Sales and related83786869Office and administrative support3797311,109Farming, fishing and forestry11112Construction and extraction250211461Installation, maintenance and repair76270346Production76518594Transportation/material moving111475585	Building/grounds cleaning and			
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Production76518594Transportation/material moving111475585				
Transportation/material moving 111 475 585	•			
Iotal         2,419         5,018         /,437           Source: Estimates by LAEDC	Total	2,419	5,018	7,437

Source: Estimates by LAEDC

Within each occupational group are 840 detailed occupations. Detailed occupations are differentiated according to jobs skills, abilities and work experienced 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.



#### Exhibit 6-3

Occupational Growth in Greater NELA 2011-2022 (Δ Employment)

Occupational Group	New Openings	Replace- ment Jobs	Total Openings
Management occupations	974	1,401	2,374
Business and financial operations	1,101	1,394	2,494
Computer and mathematical science	547	653	1,200
Architecture and engineering	261	426	687
Life, physical and social science	157	311	469
Community and social services	462	598	1,060
Legal occupations	200	217	417
Education, training and library Arts, design, entertainment, sports,	713	928	1,641
media	472	895	1,367
Healthcare practitioners and technical	2,755	2,470	5,225
Healthcare support	1,343	860	2,203
Protective services	607	1,040	1,647
Food preparation and serving Building/grounds cleaning and	3,058	5,053	8,111
maintenance	914	888	1,802
Personal care and service	901	1,518	2,418
Sales and related	797	3,641	4,438
Office and administrative support	3,912	5,292	9,204
Farming, fishing and forestry	7	39	47
Construction and extraction	670	652	1,322
Installation, maintenance and repair	350	1,039	1,389
Production	391	1,513	1,904
Transportation/material moving	698	2,115	2,813
Total	20,941	31,885	52,826

Source: Estimates by LAEDC

Exhibit 6-4 presents the top 10 detailed occupations by projected job openings (new jobs and replacement jobs) between 2011 and 2017 in NELA.

#### Exhibit 6-4

#### Occupational Growth in NELA 2011-2022 Top 10 Detailed Occupations (**Δ Employment**)

Detailed Occupation	New Openings	Replace- ment Jobs	Total Openings
Cashiers	26	278	303
Waiters and Waitresses	68	204	272
Retail Salespersons	-9	226	217
Combined Food Preparation and Serving Workers	84	131	215
Laborers and Freight, Stock, and Material Movers, Hand	30	164	195
Office Clerks, General	63	90	153
Customer Service Representatives	33	98	130
Stock Clerks and Order Fillers	17	96	113
General and Operations Managers	36	65	100
Childcare Workers	39	56	95
Total	386	1,407	1,793

Source: Estimates by LAEDC

Exhibit 6-5 presents the top 20 detailed occupations by projected job openings in Greater NELA. These twenty occupations will account for more than 36 percent of all job openings in all occupations.

### Exhibit 6-5

#### Occupational Growth in Greater NELA 2011-2022 Top 20 Detailed Occupations

(Δ	Emp	loyment	t)
----	-----	---------	----

Detailed Occupation	New Openings	Replace- ment Jobs	Total Openings
Waiters and Waitresses	646	1,915	2,561
Registered Nurses	1,132	898	2,030
Combined Food Preparation and Serving Workers	755	1,123	1,879
Cashiers	207	1,350	1,557
Office Clerks, General	536	611	1,147
Customer Service Representatives	400	686	1,086
Retail Salespersons	11	887	899
Laborers and Freight, Stock, and Material Movers, Hand	206	670	877
First-Line Supervisors of Office and Administrative Support Workers	276	440	716
Janitors and Cleaners, Except Maids and Housekeeping Cleaners	438	273	711
Receptionists and Information Clerks	277	429	706
Nursing Aides, Orderlies and Attendants	424	236	660
General and Operations Managers	268	356	624
Secretaries and Administrative Assistants, Except Legal, Medical and Executive	336	266	602
Tellers	201	361	562
Landscaping and Groundskeeping Workers	198	357	555
Police and Sheriff's Patrol Officers	128	378	506
Licensed Practical and Vocational Nurses	235	270	505
Cooks, Restaurant	269	2335	504
Ushers, Lobby Attendants, Ticket Takers	115	385	500
Total	7,061	12,126	19,187

Source: Estimates by LAEDC

The largest number of openings will be found in occupations related to the largest major occupational groups: waiters and waitresses and combined food preparation and serving workers, which are both in the food preparation and serving occupational group; and cashiers and retail salespersons, which are in the sales occupational group. The other major occupational groups represented in Greater NELA projected openings are healthcare practitioners and healthcare support occupations.

### 6.3 Education and Skills Requirements

Close examination of the detailed occupations that will provide the most job openings in the next ten years in NELA and Greater NELA reveal that many of these occupations require lower level educational levels and training. The expected openings for these job market participants are especially important to understand given the capabilities of the local labor supply.

The education and work experience needed for an entry level position in each of the top twenty occupations shown in Exhibit 6-5 for Greater NELA is shown in Exhibit 6-6. Additionally, the level of on-the-job training required to gain proficiency for each occupation is also shown.

#### Exhibit 6-6

Median Wage and Entry Level Requirements for Top 20 Detailed Occupations 2011-2022

		Entr	<u>y Level</u>	
Detailed Occupation	Median Annual Wage	Edu	Work Exp	TLO
Waiters and Waitresses	\$ 18,868	8	None	ST
Registered Nurses	85,178	4	None	None
Combined Food Preparation and				
Serving Workers	18,953	8	None	ST
Cashiers	20,017	8	None	ST
Office Clerks, General	29,692	7	None	ST
Customer Service Representatives	35,296	7	None	ST
Retail Salespersons	21,849	8	None	ST
Laborers and Freight, Stock, and				
Material Movers, Hand	23,147	8	None	ST
First-Line Supervisors of Office and	F ( 000	-	4 5	
Administrative Support Workers	56,230	7	1-5 yrs	None
Janitors and Cleaners, Except Maids and Housekeeping Cleaners	22,747	8	None	ST
Receptionists and Information Clerks	27,400	7	None	ST
Nursing Aides, Orderlies and	27,400	/	NOLIE	31
Attendants	26,078	5	None	None
General and Operations Managers	113,956	4	1-5 yrs	None
Secretaries and Administrative	115,750	т	1-5 yr 5	None
Assistants, Except Legal, Medical				
and Executive	36,040	7	None	ST
Tellers	26,033	7	None	ST
Landscaping and Groundskeeping				
Workers	24,570	8	None	ST
Police and Sheriff's Patrol Officers	N/A	7	None	MT
Licensed Practical and Vocational				
Nurses	50,213	5	None	None
Cooks, Restaurant	22,428	8	<1 yr	MT
Ushers, Lobby Attendants, Ticket	10.0/-			07
Takers ST=short term: MT=moderate-term	18,868	8	None	ST

ST=short term; MT=moderate-term Source: Estimates by LAEDC Entry level education requirements are as follows: 4=Associate's degree; 5=Post-secondary non-degree award; 6=Some college, no degree; 7=High school diploma or equivalent; and 8=Less than high school. Short-term on-the-job training is training of less than one month. Moderate on-the-job training is training from 1 to 12 months.

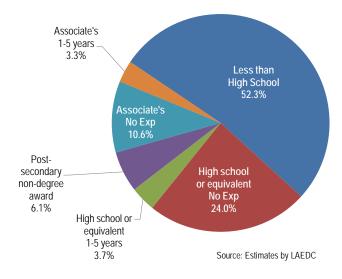
Recall that the exhibit contains the occupational needs of approximately 35 percent of the overall Greater NELA economy.

Most occupations in the exhibit require a high school diploma or less and no work experience. The median wages shown for each occupation reflect the degree of preparation and skills levels needed, as most of them are below the average wage paid to workers in Los Angeles County.

Exhibit 6-7 presents the entry level education and training requirements across all occupational projections for the county.



Entry Level Education and Experience Requirements



More than half of the projected openings for the next ten years in Greater NELA require workers without a high school diploma and no work experience. Another 24 percent will require workers with a high school diploma (or equivalent) and less than one year work experience. Together, these represent entry level jobs for unskilled workers across industries and occupations.

## 7 Target Industry Occupations

The North American Industry Classification System (NAICS) classifies businesses based upon the type of economic activity performed without regard to the diverse types of job duties requisite to operations. However, many occupations are needed within a single industry, and these require different workforce skills and abilities.

Thus, just as a business establishment classified under its primary NAICS classification code will employ workers in a variety of occupations, one occupational classification (SOC code) will be employed across many industries. For example, registered nurses are employed in hospitals, by state and local governments, by primary and secondary schools.

In this section, we provide a detailed occupational data sheet for each identified target industry subsector. For each subsector, a description of the four-digit industries within the subsector is provided. Thereafter, a breakdown of the occupational makeup by major group, and a list of detailed occupations within each major group are shown, along with the current employment and the median annual wage paid in Los Angeles County. The major occupational groups that represent then percent of more of the total subsector employment are displayed in a table, along with the detailed occupations in those major groups with an employment share of two percent or more of the industry total.

Entry-level positions for each detailed occupation are substantially different based upon their job duties. For each target industry, we grouped employment across all occupation by entry level education and experience. The distribution of the entry level education and training requirements for all jobs in the industry is presented graphically.

## Directory of Industries

Construction of Buildings (NAICS 236)	53
Heavy and Civil Engineering Construction (NAICS 237)	54
Specialty Trade Contractors (NAICS 238)	55
Beverage and Tobacco Product Manufacturing (NAICS 312)	57
Textile Mills (NAICS 313)	58
Apparel Manufacturing (NAICS 315)	59
Leather and Allied Product Manufacturing (NAICS 316)	60
Fabricated Metal Product Manufacturing (NAICS 332)	61
Computer and Electronic Product Manufacturing (NAICS 334)	63
Motion Picture and Sound Recording Industries (NAICS 512)	65
Broadcasting, Except Internet (NAICS 515)	66
Other Information Services (NAICS 519)	67
Professional and Technical Services (NAICS 541)	68
Administrative and Support Services (NAICS 561)	70
Waste Management and Remediation Services (NAICS 562)	72
Ambulatory Health Care Services (NAICS 621)	74
Hospitals (NAICS 622)	76
Nursing and Residential Care Facilities (NAICS 623)	77
Accommodation (NAICS 721)	79
Food Services and Drinking Places (NAICS 722)	80



### Construction of Buildings (NAICS 236)

### Industries within this subsector primarily construct buildings.

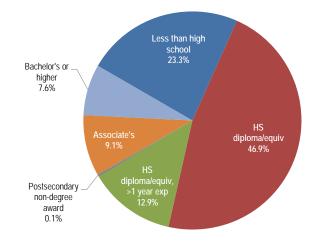
### **Residential Building Construction (2361)**

Residential building construction includes establishments who construct residential buildings; it includes new work, additions, alterations or maintenance and repairs, in addition to on-site assembly of prefabricated and temporary buildings. The industry group has one industry: residential building construction (23611).

#### Nonresidential Building Construction (2362)

Nonresidential building construction includes establishments who construct nonresidential buildings; it includes new work, additions, alterations or maintenance and repairs. Establishments include nonresidential: general contractors, for-sale builders, design-build firms and project construction management firms. The industry group has two industries: industrial building construction (23621) and commercial and institutional building construction (23622).

### Entry Level Education and Experience



#### Occupational Distribution of Construction of Buildings in LA County

			Los Angel	es County
		Nat'l share % of NAICS	Occupation Employment	Median Annual Wage
Construction	on and Extraction Occupations	62.2%	846	
47-2031	Carpenters	23.4%	318	\$ 52,267
47-2061	Construction Laborers	15.3%	208	\$ 37,396
47-1011	First-Line Supervisors of Construction Trades and Extraction Workers	9.8%	134	\$ 72,615
47-3012	HelpersCarpenters	2.0%	27	\$ 31,618
	Other Construction and Extraction Occupations	11.7%	159	
Office and	Administrative Support Occupations	11.9%	162	
43-9061	Office Clerks, General	3.3%	45	\$ 29,692
43-6014	Secretaries and Administrative Assistants, Except Legal, Medical, and Executive	2.7%	37	\$ 36,040
43-3031	Bookkeeping, Accounting, and Auditing Clerks	2.3%	31	\$ 38,918
	Other Office and Administrative Support Occupations	3.6%	49	
Manageme	ent Occupations	10.4%	142	
11-9021	Construction Managers	6.2%	84	\$ 103,141
11-1021	General and Operations Managers	2.5%	34	\$ 113,956
	Other Management Occupations	1.7%	23	\$ 52,267
All Other In	ndustry Occupations	15.4%	210	
Total*	Across All Occupations in Industry	100.0%	25,871	
Sources: BLS,	CA EDD, estimates by LAEDC			

## Heavy and Civil Engineering Construction (NAICS 237)

Industries within this subsector primarily construct entire engineering projects such as highways and dams.

### **Utility System Construction (2371)**

Utility system construction includes establishments who are engaged in the construction of distribution lines and related buildings and structures for utilities (water, sewer, petroleum, gas, power, and communication). The industry group has three industries: water and sewer line and related structures construction (23711), oil and gas pipeline and related structures construction (23712) and power and communication line and related structures construction (23713).

### Land Subdivision (2372)

Land subdivision includes establishments primarily engaged in servicing land and dividing real property into lots for subsequent sale to builders. The industry group has one industry: land subdivision (23721).

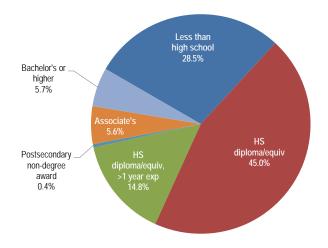
### Highway, Street, and Bridge Construction (2373)

Highway, street, and bridge construction includes establishments who are primarily involved in the construction of highways, streets, roads, airport runways, public sidewalks or bridges. The industry group has one industry: highway, street and bridge construction (23731).

### Other Heavy and Civil Engineering Const. (2379)

Other heavy and civil engineering construction includes establishments who are engaged in heavy and engineering construction projects not including highway, street, bridge or distribution line construction. This includes new work, reconstruction, rehabilitation and repairs. The industry group has one industry: other heavy and civil engineering construction (23799).

### Entry Level Education and Experience



### Occupational Distribution of Heavy and Civil Engineering Construction in LA County

			Los Ange	les County
		Nat'l share % of NAICS	Occupation Employment	Median Annual Wage
Constructio	on and Extraction Occupations	57.0%	6,587	
47-2061	Construction Laborers	22.2%	2,571	\$37,396
47-2073	Operating Engineers and Other Construction Equipment Operators	11.8%	1,362	\$78,266
47-1011	First-Line Supervisors of Construction Trades and Extraction Workers	7.2%	829	\$72,615
47-2031	Carpenters	3.2%	374	\$52,267
47-2151	Pipelayers	2.3%	267	\$45,998
47-2071	Paving, Surfacing, and Tamping Equipment Operators	2.2%	258	\$60,595
47-2051	Cement Masons and Concrete Finishers	1.9%	221	\$46,838
47-2152	Plumbers, Pipefitters, and Steamfitters	1.9%	215	\$55,746
	Other Construction and Extraction Occupations	4.2%	490	
Installation	, Maintenance, and Repair Occupations	10.6%	1,221	
49-9051	Electrical Power-Line Installers and Repairers	3.2%	373	\$86,428
49-9052	Telecommunications Line Installers and Repairers	1.9%	217	\$54,041
	Other Installation, Maintenance, and Repair Occupations	5.4%	630	
All Other In	ndustry Occupations	32.5%	3,754	
Total*	Across All Occupations in Industry	100.0%	11,561	
Sources: BLS, (	CA EDD, estimates by LAEDC			

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### Specialty Trade Contractors (NAICS 238)

Industries within this subsector perform activities for building construction but are not responsible for the entire project.

## Foundation, Structure and Building Contractors (2381)

Foundation, structure and building contractors include establishments mainly involved in the specialty trades that are needed to complete a structure such as the foundation, the frame and the shell of buildings. The industry group has eight industries: poured concrete foundation and structure contractors (23811), structural steel and precast concrete contractors (23812), framing contractors (23813), masonry contractors (23814), glass and glazing contractors (23815), roofing contractors (23816), sliding contractors (23817), and other foundation, structure and building exterior contractors (23819).

### **Building Equipment Contractors (2382)**

Building equipment contractors are mostly engaged in installing or servicing equipment or the parts of a building's mechanical system including electricity, water, heating and cooling. The industry group has three industries: electrical contractors and other wiring installation contractors (23821), plumbing, heating and air-conditioning contractors (23822), and other building equipment contractors (23829).

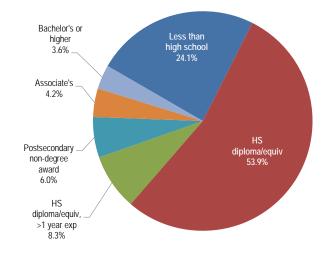
### **Building Finishing Contractors (2383)**

Building finishing contractors include establishments involved in the specialty trades to finish buildings including new work, additions, alterations, maintenance and repairs. The industry group has six industries: drywall and insulation contractors (23831), painting and wall covering contractors (23832), flooring contractors (23833), tile and terrazzo contractors (23834), finish carpentry contractors (23835), and other building finishing contractors (23839).

### **Other Specialty Trade Contractors (2389)**

Other specialty contractors include all those who are involved in building contractors but not included in the other NAICS industries. The industry group has two industries: site preparation contractors (23891), establishments engaged in site prep activities such as excavating, and all other specialty trade contractors (23899), establishments engaged in specialized trades excluding those previously listed.

### Entry Level Education and Experience



## Specialty Trade Contractors (cont'd)

Industries within this subsector perform activities for building construction but are not responsible for the entire project.

### Occupational Distribution of Specialty Trade Contractors in LA County

			Los Angele	es County
SOC	Occupation	Nat'l share % of NAICS	Occupation Employment	Median Annual Wage
Constructio	n and Extraction Occupations	63.9%	43,189	
47-2111	Electricians	10.8%	7,280	\$62,283
47-2061	Construction Laborers	7.4%	4,967	\$37,396
47-2152	Plumbers, Pipefitters, and Steamfitters	7.3%	4,941	\$55,746
47-2031	Carpenters	5.0%	3,367	\$52,267
47-1011	First-Line Supervisors of Construction Trades and Extraction Workers	4.9%	3,303	\$72,615
47-2141	Painters, Construction and Maintenance	3.8%	2,586	\$36,240
47-2051	Cement Masons and Concrete Finishers	2.8%	1,861	\$46,838
47-2073	Operating Engineers and Other Construction Equipment Operators	2.6%	1,780	\$78,266
47-2211	Sheet Metal Workers	2.4%	1,591	\$46,442
47-2081	Drywall and Ceiling Tile Installers	1.9%	1,272	\$49,210
	Other Construction and Extraction Occupations	12.4%	8,396	
Office and A	Administrative Support Occupations	10.6%	7,177	
43-9061	Office Clerks, General	3.3%	2,200	\$29,692
43-6014	Secretaries and Administrative Assistants, Except Legal, Medical, and Executive	2.3%	1,560	\$36,040
43-3031	Bookkeeping, Accounting, and Auditing Clerks	2.0%	1,383	\$38,918
	Other Office and Administrative Support Occupations	3.0%	2,034	
Installation,	Maintenance, and Repair Occupations	10.1%	6,851	
49-9021	Heating, Air Conditioning, and Refrigeration Mechanics and Installers	4.8%	3,210	\$54,365
	Other Installation, Maintenance, and Repair Occupations	5.4%	3,641	
All Other In	dustry Occupations	15.3%	10,355	
Total*	Across All Occupations in Industry	100.0%	67,572	

Sources: BLS, CA EDD, estimates by LAEDC \*May not sum due to rounding



### Beverage and Tobacco Product Manufacturing (NAICS 312)

Industries within this subsector manufacture beverages and tobacco products.

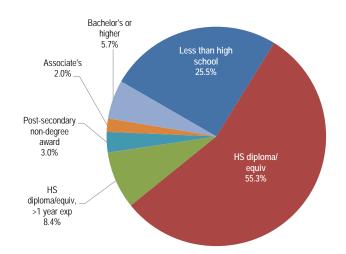
### **Beverage Manufacturing (3121)**

Beverage manufacturing includes establishments that manufacture nonalcoholic and alcoholic beverages. Alcoholic beverages are produced either through fermentation or distillation. The industry group has four industries: soft drink and ice manufacturing (31211), breweries (31212), wineries (31213) and distilleries (31214).

#### Tobacco Manufacturing (3122)

Tobacco manufacturing includes establishments that stem and redry tobacco and/or manufacturing cigarettes or other tobacco products. The industry group has one industry: tobacco manufacturing (31223).

### Entry Level Education and Experience



### Occupational Distribution of Beverage and Tobacco Product Manufacturing in LA County

		Nat'l share % of NAICS	Los Ang Occupation Employment	geles County Median Annual Earnings
Production	n Occupations	29.2%	1,463	
51-9111	Packaging and Filling Machine Operators and Tenders	11.6%	581	\$ 22,422
51-9012	Separating, Filtering, Clarifying, Precipitating, and Still Machine Setters/Operators/Tenders	5.2%	259	\$ 36,968
51-1011	First-Line Supervisors of Production and Operating Workers	2.7%	135	\$ 51,218
51-9061	Inspectors, Testers, Sorters, Samplers, and Weighers	1.9%	95	\$ 34,469
	Other Production Occupations	7.8%	392	
Transporta	ation and Material Moving Occupations	22.9%	1,149	
53-7062	Laborers and Freight, Stock, and Material Movers, Hand	6.0%	299	\$ 23,147
53-3031	Driver/Sales Workers	4.3%	218	\$ 23,088
53-7051	Industrial Truck and Tractor Operators	3.8%	192	\$ 35,449
53-3032	Heavy and Tractor-Trailer Truck Drivers	3.2%	159	\$ 41,482
53-3033	Light Truck or Delivery Services Drivers	2.8%	142	\$ 29,793
	Other Transportation and Material Moving Occupations	2.8%	138	
Sales and	Related Occupations	12.8%	639	
41-4012	Sales Reps, Wholesale and Manufacturing, Except Technical and Scientific Products	5.1%	253	\$ 55,429
41-2031	Retail Salespersons	3.4%	173	\$ 21,849
41-9011	Demonstrators and Product Promoters	2.4%	123	\$ 23,762
	Other Sales and Related Occupations	1.8%	91	
Office and	Administrative Support Occupations	10.1%	506	
43-5081	Stock Clerks and Order Fillers	2.1%	108	\$ 22,677
	Other Office and Administrative Support Occupations	7.9%	398	
All Other	Industry Occupations	25.0%	1,253	
Total*	Across All Occupations in the Industry	100.0%	5,010	
Sources: BLS,	CA EDD, estimates by LAEDC			



### Textile Mills (NAICS 313)

Industries within this subsector convert a basic fiber into a product to be further manufactured for consumption.

### Fiber, Yarn, and Thread Mills (3131)

Fiber, yarn and thread mills include establishments that: manufacture thread; spin yarn; texturize, throw, twist, and wind purchased yarn or manmade fiber filaments; and produce or further process hemp yarn. The industry group has one industry: fiber, yarn and thread mills (31311).

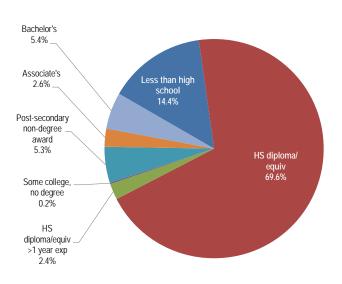
### Fabric Mills (3132)

Fabric mills include establishments that weave, weave and finish, or weave, finish and further fabricate fabric products. The industry group has four industries: broadwoven fabric mills (31321), narrow fabric mills and schiffli machine embroidery (31322), nonwoven fabric mills (31323) and knit fabric mills (31324).

### *Textile and Fabric Finishing and Fabric Coating Mills* (3133)

Textile and fabric finishing and fabric coating mills includes establishments that finish or coat textiles, fabrics, and apparel, and those who buy fabric goods in the grey and finish them on contract for wholesale. The industry group has two industries: textile and fabric finishing mills (31331) and fabric coating mills (31332).

### Entry Level Education and Experience



### Occupational Distribution of Textile Mills in LA County

			Los Ang	eles County
		Nat'l share % of NAICS	Occupation Employment	Median Annual Earnings
Production	Occupations	59.8%	4,113	
51-6064	Textile Winding, Twisting, and Drawing Out Machine Setters, Operators and Tenders	17.2%	1,180	\$ 19,527
51-6063	Textile Knitting and Weaving Machine Setters, Operators and Tenders	12.3%	845	\$ 19,304
51-9061	Inspectors, Testers, Sorters, Samplers and Weighers	5.4%	368	\$ 34,469
51-1011	First-Line Supervisors of Production and Operating Workers	4.7%	327	\$ 51,218
51-6091	Extruding and Forming Machine Setters/Operators/ Tenders, Synthetic and Glass Fibers	3.1%	211	\$ 30,035
51-9198	HelpersProduction Workers	2.6%	178	\$ 21,162
51-6099	Textile, Apparel, and Furnishings Workers, All Other	2.2%	151	\$ 19,888
	Other Production Occupations	12.4%	853	
Office and	Administrative Support Occupations	10.1%	694	
43-5071	Shipping, Receiving, and Traffic Clerks	2.1%	142	\$ 28,322
	Other Office and Administrative Support Occupations	8.0%	552	
All Other In	ndustry Occupations	30.1%	2,072	
Total*	Across All Occupations in the Industry	100.0%	6,879	
Sources: BLS, (	CA EDD, estimates by LAEDC			



### Apparel Manufacturing (NAICS 315)

Industries within this subsector cut and sew and manufacture garments.

### Apparel Knitting Mills (3151)

Apparel knitting mills include establishments that knit apparel or fabric and then manufacture apparel. The industry group has two industries: hosiery and sock mills (31211) and other apparel knitting mills (31214).

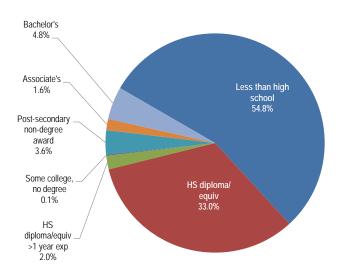
#### Cut and Sew Apparel Manufacturing (3152)

Cut and sew apparel manufacturing includes establishments that cut and sew apparel from woven fabric or purchased knit fabric. The industry group has four industries: cut and sew apparel contractors (31211), men's and boys' cut and sew apparel manufacturing (31212), women's, girls', and infants' cut and sew apparel manufacturing (31213) and other cut and sew apparel manufacturing (31214).

### Apparel Accessories and Other Apparel Mfg (3159)

Apparel accessories and other apparel manufacturing include establishments that manufacture apparel and accessories. The industry group has one industry: apparel accessories and other apparel manufacturing (31223).

### Entry Level Education and Experience



### Occupational Distribution of Apparel Manufacturing in LA County

			Los Ang	jeles County
		Nat'l share	Occupation	Median
		% of NAICS	Employment	Annual Earnings
Production	n Occupations	63.6%	28,959	
51-6031	Sewing Machine Operators	39.3%	17,881	\$ 19,274
51-1011	First-Line Supervisors of Production and Operating Workers	3.6%	1,632	\$ 51,218
51-6062	Textile Cutting Machine Setters, Operators, and Tenders	3.5%	1,595	\$ 21,182
51-9061	Inspectors, Testers, Sorters, Samplers, and Weighers	3.0%	1,358	\$ 34,469
51-6092	Fabric and Apparel Patternmakers	2.1%	965	\$ 43,907
51-6021	Pressers, Textile, Garment, and Related Materials	1.9%	859	\$ 20,456
51-6063	Textile Knitting and Weaving Machine Setters, Operators, and Tenders	1.8%	832	\$ 19,304
	Other Production Occupations	8.4%	3,837	
Office and	Administrative Support Occupations	13.0%	5,931	
43-5071	Shipping, Receiving, and Traffic Clerks	2.7%	1,223	\$ 28,322
	Other Office and Administrative Support Occupations	10.3%	4,708	
All Other I	ndustry Occupations	23.4%	10,649	
Total*	Across All Occupations in the Industry	100.0%	45,539	
Sources: BLS,	CA EDD, estimates by LAEDC			

### Leather and Allied Product Manufacturing (NAICS 316)

Industries within this subsector manufacture leather into products for final consumption.

### Leather and Hide Tanning and Finishing (3161)

Leather and hide tanning and finishing industry includes establishments that are mainly involved in: tanning, currying and finishing hides and dyeing and dressing furs. The industry group has one industry: leather and hide tanning and finishing (31611).

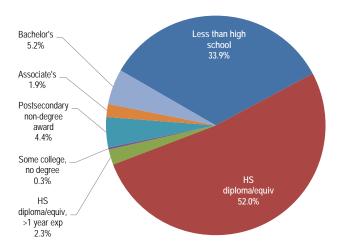
### Footwear Manufacturing (3162)

Footwear manufacturing includes establishments primarily engaged in manufacturing footwear, excluding orthopedic extension footwear. The industry group has one industry: footwear manufacturing (31621).

# Other Leather and Allied Product Manufacturing (3169)

Other leather and allied product manufacturing includes establishments that mainly manufacture leather products from purchased leather or leather substitutes, excludes footwear and apparel. The industry group has one industry: other leather and allied product manufacturing (31699).

### Entry Level Education and Experience



### Occupational Distribution of Leather and Allied Manufacturing in LA County

		Nat'l share	Los Ang Occupation	jeles County Median
		% of NAICS	Employment	Annual Earnings
Production	Occupations	53.3%	1,175	
51-6031	Sewing Machine Operators	17.4%	384	\$19,274
51-6041	Shoe and Leather Workers and Repairers	8.9%	195	\$19,746
51-2092	Team Assemblers	6.5%	144	\$23,507
51-1011	First-Line Supervisors of Production and Operating Workers	3.7%	81	\$51,218
51-9198	HelpersProduction Workers	2.3%	52	\$21,162
51-9399	Production Workers, All Other*	2.0%	44	\$30,887
51-9061	Inspectors, Testers, Sorters, Samplers, and Weighers	2.0%	43	\$34,469
	Other Production Occupations	10.5%	232	
Office and	Administrative Support Occupations	11.5%	254	
43-5071	Shipping, Receiving, and Traffic Clerks	2.4%	53	\$28,322
	Other Office and Administrative Support Occupations	9.1%	202	
All Other I	ndustry Occupations	35.2%	778	
Total*	Across All Occupations in the Industry	100.0%	2,207	
Sources: BLS, (	CA EDD, estimates by LAEDC			



### Fabricated Metal Product Manufacturing (NAICS 332)

Industries within this subsector transform metal into intermediate or end products other than machinery, computers, electronics or metal furniture.

### Forging and Stamping (3321)

Establishments in this industry are primarily involved in manufacturing: forgings from purchased metals; metal custom rolls forming products; metal stamped and spun products; and powder metallurgy products. The industry group has one industry: forging and stamping (33211).

### Cutlery and Handtool Manufacturing (3322)

Cutlery and Handtool Manufacturing establishments are mainly engaged in manufacturing: metal kitchen cookware (except by casting), utensils, and/or nonprecious and precious plated metal cutlery and flatware; saw blades; and nonpowered hand and edge tools. The industry group has one industry: cutlery and handtool manufacturing (33221).

### Architectural and Structural Metals Mfg. (3323)

Architectural and structural metals manufacturing establishments are primarily involved in manufacturing: prefabricated metal buildings, panels and sections; structural metal products and metal plate work products; and metal framed windows and doors, sheet metal work and ornamental and architectural metal products. The industry group has two industries: plate work and fabricated structural product manufacturing (33231), ornamental and architectural metal products manufacturing (33232).

### Boiler, Tank and Shipping Container Mfg. (3324)

Boiler, tank and shipping container manufacturing establishments are mainly engaged in: manufacturing and/or installing power boilers and heat exchanges; cutting, forming and joining heavy gauge metal to manufacture tanks, vessels and other containers; and manufacturing metal cans, lids and ends. The industry group has three industries: power boiler and heat exchanger manufacturing (33241), metal tank (heavy gauge) manufacturing (33242), metal can, box and other metal container (light gauge) manufacturing (33243).

### Hardware Manufacturing (3325)

Hardware manufacturing establishments are mainly engaged in manufacturing metal hardware including metal hinges, handles, keys and locks. The industry group has one industry: hardware manufacturing (33251).

### Spring and Wire Product Manufacturing (3326)

Spring and wire product manufacturing firms mainly manufacture steel springs and/or wire springs and fabricated wire products. The industry group has only industry: spring and wire product manufacturing (33261).

### Machine Shops; Turned Product; and Screw, Nut and Bolt Manufacturing (3327)

Machine shops and turned product manufacturers include establishments mainly engaged in machining metal and plastic parts and parts of other composite materials using machine tools on a job basis. The industry group has two industries: machine shops (33271) and turned product and screw, nut and bolt manufacturing (33272).

## Coating, Engraving, Heat Treating and Allied Activities (3328)

Coating, engraving, heat treating and allied activities establishments are primarily involved in heat treating, enameling, lacquering and varnishing, hot dip galvanizing, engraving, chasing or etching, powder coating, electroplating, plating, anodizing, coloring, and finishing metals and metal product as well as providing other metal surfacing services for the trade. The industry group has only industry: coating, engraving, heat treating and allied activities (33281)

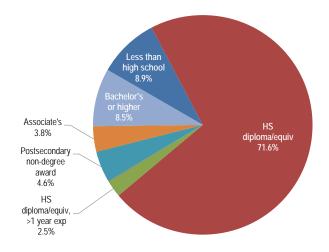
### Other Fabricated Metal Product Mfg. (3329)

Other fabricated metal product manufacturing firms are mainly involved in the manufacturing of fabricated metal products that are not included in the previous mentioned industries. The industry group has two industries: metal valve manufacturing (33291) and all other fabricated metal product manufacturing (33299).

### Fabricated Metal Product Manufacturing (cont'd)

Industries within this subsector transform metal into intermediate or end products other than machinery, computers, electronics or metal furniture.

### Entry Level Education and Experience



### Occupational Distribution of Fabricated and Metal Manufacturing in LA County

			Los Ang	jeles County
		Nat'l share	Occupation	Median
		% of NAICS	Employment	Annual Earnings
Production	Occupations	60.3%	24,828	
51-4041	Machinists	9.4%	3,864	\$36,099
51-4121	Welders, Cutters, Solderers, and Brazers	6.1%	2,517	\$34,959
51-2092	Team Assemblers	5.4%	2,232	\$23,507
51-1011	First-Line Supervisors of Production and Operating Workers	4.5%	1,849	\$51,218
51-4031	Cutting, Punching, and Press Machine Setters, Operators, and Tenders, Metal and Plastic	4.2%	1,722	\$28,554
51-4011	Computer-Controlled Machine Tool Operators, Metal and Plastic	3.6%	1,481	\$33,773
51-9061	Inspectors, Testers, Sorters, Samplers, and Weighers	2.9%	1,179	\$34,469
51-2041	Structural Metal Fabricators and Fitters	2.8%	1,159	\$35,676
51-9198	HelpersProduction Workers	2.8%	1,133	\$21,162
51-4033	Grinding/Lapping/Polishing,/Buffing Machine Tool Setters/Operators/Tenders, Metal/Plastic	2.1%	846	\$26,090
51-9121	Coating, Painting, and Spraying Machine Setters, Operators, and Tenders	1.9%	771	\$24,110
	Other Production Occupations	14.8%	6,076	
Office and	Administrative Support Occupations	11.0%	4,508	
43-5071	Shipping, Receiving, and Traffic Clerks	1.9%	780	\$28,322
43-9061	Office Clerks, General	1.9%	775	\$29,692
	Other Office and Administrative Support Occupations	7.2%	2,953	
All Other I	ndustry Occupations	28.7%	11,806	
Total*	Across All Occupations in the Industry	100.0%	41,142	

Sources: BLS, CA EDD, estimates by LAEDC \*May not sum due to rounding



### Computer and Electronic Product Manufacturing (NAICS 334)

Industries within this subsector manufacture computers, computer peripherals, communications equipment and similar electronic products and establishments that manufacture the components for such products.

### Computer and Peripheral Equipment Mfg (3341)

Computer and peripheral equipment manufacturing establishments are mainly engaged in manufacturing and/or assembling computers such as mainframes, personal computers, workstations, laptops, servers and computer peripheral equipment. The industry group has one industry: computer and peripheral equipment manufacturing (33411).

### Communications Equipment Manufacturing (3342)

Communications equipment manufacturing firms primarily manufacture wire telephone and data communications equipment. The industry group has three industries: telephone apparatus manufacturing (33421), radio and television broadcasting and wireless communications equipment manufacturing (33422), and other communications equipment manufacturing.

### Audio and Video Equipment Manufacturing (3343)

Audio and video equipment manufacturing industry is comprised mainly of establishments that manufacture electronic audio and video equipment for home entertainment, motor vehicles, public address and instrument amplification. The industry group has one industry: audio and video equipment manufacturing (33431).

### Semiconductor and Other Electronic Component Manufacturing (3344)

Semiconductor and other electronic component manufacturing establishments manufacture semiconductors and other components for electronics applications. The industry group has one industry: semiconductor and other electronic component manufacturing (33441).

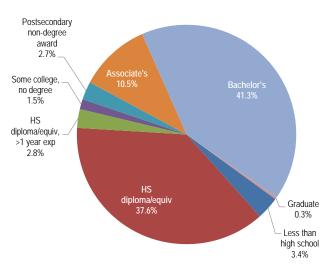
### Navigational, Measuring, Electromedical and Control Instruments Manufacturing (3345)

Navigational, measuring, electromedical and control instruments manufacturing establishments are mainly engaged in manufacturing navigational, measuring, electromedical and control instruments manufacturing. The industry group has one industry: navigational, measuring, electromedical and control instruments manufacturing (33451).

## Manufacturing and Reproducing Magnetic and Optical Media (3346)

Manufacturing and reproducing magnetic and optical media establishments are mainly involved in the manufacture of optical and magnetic media, mass duplicating audio, video, and other data on magnetic, optical and similar media. The industry group has one industry: manufacturing and reproducing magnetic and optical media (33461).

### Entry Level Education and Experience



### Computer and Electronic Product Manufacturing (cont'd)

Industries within this subsector manufacture computers, computer peripherals, communications equipment and similar electronic products and establishments that manufacture the components for such products.

Occupational Distribution of Computer and Electronic Product Manufacturing in LA County
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		Los Angeles County		
		Nat'l share % of NAICS	Occupation Employment	Median Annual Earnings
Production Occupations		29.3%	13,144	
51-2022	Electrical and Electronic Equipment Assemblers	9.2%	4,135	\$27,392
51-2092	Team Assemblers	4.3%	1,914	\$23,507
51-9061	Inspectors, Testers, Sorters, Samplers, and Weighers	2.9%	1,302	\$34,469
51-9141	Semiconductor Processors	2.0%	897	\$32,840
51-1011	First-Line Supervisors of Production and Operating Workers	2.0%	885	\$51,218
	Other Production Occupations	9.0%	4,012	
Architectu	re and Engineering Occupations	18.8%	8,409	
17-3023	Electrical and Electronics Engineering Technicians	3.5%	1,562	\$62,997
17-2071	Electrical Engineers	3.0%	1,360	\$100,091
17-2072	Electronics Engineers, Except Computer	2.9%	1,311	\$101,548
17-2112	Industrial Engineers	2.5%	1,133	\$92,369
	Other Architecture and Engineering Occupations	6.8%	3,043	
Computer	and Mathematical Occupations	13.3%	5,970	
15-1133	Software Developers, Systems Software	5.4%	2,398	\$108,273
15-1132	Software Developers, Applications	3.1%	1,402	\$94,358
	Other Computer and Mathematical Occupations	4.8%	2,170	
Managem	ent Occupations	11.3%	5,062	
11-9041	Architectural and Engineering Managers	2.6%	1,161	\$141,356
11-1021	General and Operations Managers	2.0%	904	\$113,956
	Other Management Occupations	8.7%	3,901	
All Other	Other Industry Occupations 27.3% 12,213			
Total*	Across All Occupations in the Industry	100.0%	44,799	
Sources: BLS,	CA EDD, estimates by LAEDC			



### Motion Picture and Sound Recording Industries (NAICS 512)

Industries within this subsector produce and distribute motion pictures and sound recordings.

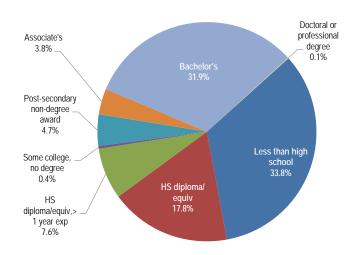
### Motion Picture and Video Industries (5121)

Motion picture and video industries include establishments that: produce and/or distribute motion pictures, videos, TV programs, or commercials; exhibit motion pictures; or provide postproduction and related services. The industry group has four industries: motion picture and video production (51211), motion picture and video distribution (51212), motion picture and video exhibition (51213) and postproduction services (51219).

### Sound Recording Industries (5122)

Sound recording industries includes establishments that produce and distribute musical recordings, publish music, or provide sound recording and related services. The industry group has five industries: record production (51221), integrated record production/ distribution (51222), music publishers (51223), sound recording studios (51224) and other sound recording industries (51229).

### Entry Level Education and Experience



Occupational Distribution of Motion Picture and Sound Recording Industries in LA County

		Nat'l share	Los Ang Occupation	Los Angeles County ation Median	
		% of NAICS	Employment	Annual Earnings	
Arts, Desi	gn, Entertainment, Sports, and Media Occupations	31.3%	37,566		
27-2012	Producers and Directors	9.6%	11,494	\$ 121,461	
27-4032	Film and Video Editors	3.9%	4,680	\$ 97,339	
27-1014	Multimedia Artists and Animators	2.4%	2,924	\$ 81,166	
27-4011	Audio and Video Equipment Technicians	2.0%	2,454	\$ 47,298	
27-4014	Sound Engineering Technicians	2.0%	2,386	\$ 69,167	
	Other Arts, Design, Ent, Sports, and Media Occupations	11.3%	13,628		
Personal (	Care and Service Occupations	15.1%	18,162		
39-3031	Ushers, Lobby Attendants, and Ticket Takers	10.5%	12,623	\$ 20,873	
39-3021	Motion Picture Projectionists	2.5%	2,946	\$ 26,202	
	Other Transportation and Material Moving Occupations	2.2%	2,593		
Food Prep	paration and Serving Related Occupations	13.5%	16,249		
35-3022	Counter Attendants, Cafeteria, Food Concession, and Coffee Shop	10.7%	12,830	\$ 19,217	
	Other Sales and Related Occupations	2.8%	3,419		
Office and	Administrative Support Occupations	10.8%	13,011		
43-6014	Secretaries and Admin Assistants (not legal, med or executive)	1.5%	1,859	\$ 36,040	
	Other Office and Administrative Support Occupations	9.3%	11,152		
All Other I	ndustry Occupations	29.3%	35,144		
Total*	Across All Occupations in the Industry	100.0%	120,133		

Sources: BLS, CA EDD, estimates by LAEDC \*May not sum due to rounding

### Broadcasting, Except Internet (NAICS 515)

Industries within this subsector create or acquire the right to distribute content and subsequently broadcast the content.

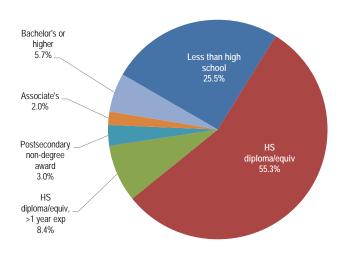
### Radio and Television Broadcasting (5151)

Radio and television broadcasting establishments primarily engage in operating broadcasting studios and facilities for over-the-air or satellite delivery of radio and television programs. The industry group has two industries: radio broadcasting (51511) and television broadcasting (51512).

### Cable and Other Subscription Programming (5152)

Cable and other subscription programming establishments primarily operate studios and facilities for the broadcasting of programs on a subscription or fee basis. The industry group has one industry: cable and other subscription programming (51521).

### Entry Level Education and Experience



### Occupational Distribution of Broadcasting, Except Internet in LA County

			eles County	
		Nat'l share % of NAICS	Occupation Employment	Median Annual Earnings
Arts, Desig	n, Entertainment, Sports, and Media Occupations	38.3%	7,088	
27-4012	Broadcast Technicians	9.4%	1,745	\$44,631
27-2012	Producers and Directors	9.0%	1,658	\$121,461
27-3022	Reporters and Correspondents	4.3%	799	\$41,261
27-4031	Camera Operators, Television, Video, and Motion Picture	2.7%	491	\$51,664
27-4021	Photographers	1.9%	346	\$45,015
	Other Arts, Design, Entertainment, Sports, and Media Occupations	11.1%	2,049	
Office and	Administrative Support Occupations	19.7%	3,644	
43-4051	Customer Service Representatives	5.9%	1,091	\$35,296
43-9061	Office Clerks, General	2.4%	439	\$29,692
	Other Office and Administrative Support Occupations	11.4%	2,115	
Sales and	Related Occupations	14.5%	2,677	
41-3011	Advertising Sales Agents	10.7%	1,989	\$52,892
	Other Sales and Related Occupations	3.7%	688	
Installation	n, Maintenance, and Repair Occupations	11.0%	2,031	
49-9052	Telecommunications Line Installers and Repairers	4.8%	892	\$54,041
49-2022	Telecommunications Equipment Installers and Repairers, Except Line Installers	4.0%	733	\$56,610
	Other Installation, Maintenance, and Repair Occupations	7.0%	1,298	
All Other Industry Occupations		16.6%	3,063	
Total*	Across All Occupations in the Industry	100.0%	18,503	
Sources: BLS, (	CA EDD, estimates by LAEDC			

\*May not sum due to rounding



Los Angeles County

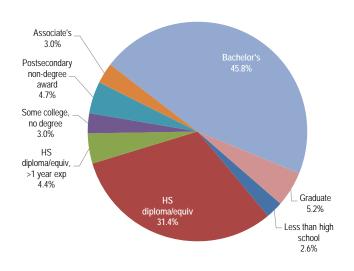
### Other Information Services (NAICS 519)

Industries within this subsector supply information, store and provide access to information, search and retrieve information, publish and/or broadcast content exclusively on the Internet.

### **Other Information Services (5191)**

Other Information Services includes establishments that are primarily engaged in supplying information to news media, providing library or archive services, publishing and/or broadcasting content on the Internet exclusively or operating web search portals, and all other establishments that providing other information services. The industry group has four industries: news syndicates (51911), libraries and archives (51912), internet publishing and broadcasting and web search portals (51913) and all other information services (51919).

### Entry Level Education and Experience



### Occupational Distribution of Other Information Services in LA County

		Nat'l share % of NAICS	Los Ang Occupation Employment	geles County Median Annual Earnings
Computer and Mathematical Occupations		24.8%	2,041	_
15-1132	Software Developers, Applications	6.6%	546	\$94,358
15-1179	Information Security Analysts, Web Developers, and Computer Network Architects	4.3%	357	\$75,803
15-1150	Computer Support Specialists	2.9%	236	\$51,461
15-1131	Computer Programmers	2.2%	178	\$85,490
15-1133	Software Developers, Systems Software	2.1%	175	\$108,273
	Other Computer and Mathematical Occupations	6.7%	551	
Office and	Administrative Support Occupations	22.6%	1,859	
43-4121	Library Assistants, Clerical	5.1%	420	\$24,712
43-4051	Customer Service Representatives	4.5%	372	\$35,296
43-9061	Office Clerks, General	2.5%	209	\$29,692
	Other Office and Administrative Support Occupations	10.4%	858	
Arts, Desig	gn, Entertainment, Sports, and Media Occupations	11.3%	933	
27-3041	Editors	3.7%	304	\$56,142
27-3022	Reporters and Correspondents	2.1%	172	\$41,261
	Other Arts, Design, Entertainment, Sports, and Media Occupations	5.6%	457	
Managem	ent Occupations	10.5%	867	
11-1021	General and Operations Managers	2.7%	224	\$113,956
11-3021	Computer and Information Systems Managers	2.4%	199	\$133,082
	Other Management Occupations	7.8%	642	
All Other	Industry Occupations	30.7%	2,531	
Total*	Across All Occupations in the Industry	100.0%	8,231	
Sources: BLS,	CA EDD, estimates by LAEDC			



### Professional and Technical Services (NAICS 541)

Industries within this subsector use the knowledge and skills of their employees as the major input. Industries are defined on the basis of the particular expertise and training of the services provider.

### Legal Services (5411)

The industry group has three industries: offices of lawyers (54111), offices of notaries (54112) and other legal services (54119).

## Accounting, Tax Preparation, Bookkeeping and Payroll Services (5412)

The industry group has one industry: accounting, tax preparation, bookkeeping and payroll services (54121).

## Architectural, Engineering and Related Services (5413)

The industry group has seven industries: architectural services (54131), landscape architectural services (54132), engineering services (54133), drafting services (54134), building inspection services (54135), geophysical surveying and mapping services (54136), surveying and mapping (not geophysical) services (54137) and testing laboratories (54138).

### Specialized Design Services (5414)

The industry group has four industries: interior design services (54141), industrial design services (54142), graphic design services (54143) and other specialized design services (54149).

## Computer Systems Design and Related Services (5415)

The industry group has one industry: computer systems design and related services (54151).

### Management, Scientific and Technical Consulting Services (5416)

The industry group has three industries: management consulting services (54161), environmental consulting services (54162) and other scientific and technical consulting services (54169).

## Scientific Research and Development Services (5417)

The industry group has two industries: research and development in the physical, engineering, and life sciences (54171) and research and development in the social sciences and humanities (54172).

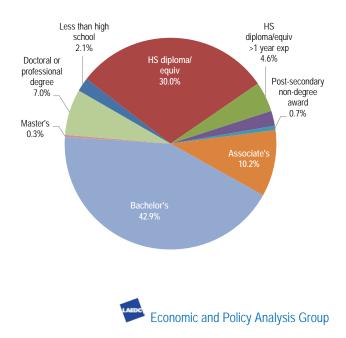
## Advertising, Public Relations, and Related Services (5418)

The industry group has eight industries: advertising agencies (54181), public relations agencies (54182), media buying agencies (54183), media representatives (54184), outdoor advertising (54185), direct mail advertising (54186), advertising material distribution services (54187) and other services related to advertising (54189).

### *Other Professional, Scientific and Technical Services (5419)*

The industry group has five industries: marketing research and public opinion polling (54191), photographic services (54192), translation and interpretation services (54193), veterinary services (54194) and all other professional, scientific and technical services (54199).

### Entry Level Education and Experience



## Professional and Technical Services (cont'd)

Industries within this subsector use the knowledge and skills of their employees as the major input. Industries are defined on the basis of the particular expertise and training of the services provider.

Оссира	tional Distribution of Professional and Technical Services	in LA County		
1		Nat'l share % of NAICS	Los An <u>c</u> Occupation Employment	geles County Median Annual Earnings
Office and	Administrative Support Occupations	22.5%	57,548	
43-9061	Office Clerks, General	3.2%	8,080	\$ 29,692
43-6014	Secretaries and Administrative Assistants, Except Legal, Medical, and Executive	2.8%	7,197	\$ 36,040
43-3031	Bookkeeping, Accounting, and Auditing Clerks	2.8%	7,085	\$ 38,918
43-6012	Legal Secretaries	2.6%	6,608	\$ 51,075
	Other Office and Administrative Support Occupations	11.2%	28,579	
Computer a	and Mathematical Occupations	15.8%	40,399	
15-1132	Software Developers, Applications	3.1%	8,024	\$ 94,358
15-1121	Computer Systems Analysts	2.4%	6,122	\$ 86,114
15-1133	Software Developers, Systems Software	2.4%	6,017	\$ 108,273
15-1150	Computer Support Specialists	2.2%	5,716	\$ 51,461
15-1131	Computer Programmers	1.9%	4,909	\$ 85,490
	Other Computer and Mathematical Occupations	3.8%	9,611	
Business a	nd Financial Operations Occupations	14.3%	36,630	
13-2011	Accountants and Auditors	4.9%	12,615	\$ 68,193
13-1111	Management Analysts	2.8%	7,181	\$ 84,476
	Other Business and Financial Operations Occupations	6.6%	16,834	
Architectur	e and Engineering Occupations	10.4%	26,638	
17-2051	Civil Engineers	1.8%	4,666	\$ 91,931
	Other Architecture and Engineering Occupations	8.6%	21,972	
All Other In	dustry Occupations	37.0%	94,609	
Total*	Across All Occupations in the Industry	100.0%	255,825	

Sources: BLS, CA EDD, estimates by LAEDC \*May not sum due to rounding



## Administrative and Support Services (NAICS 561)

Industries within this subsector provide services that support the day-to-day operations of other organizations.

### Office Administrative Services (5611)

Office administrative services include establishments that provide day-to-day office administrative services for others on a contract or fee basis. The industry group has one industry: office administrative services (56111).

### Facilities Support Services (5612)

Facilities support services includes establishments that providing a combination of support services within a client's facilities. The industry group has one industry: facilities support services (56121).

### **Employment Services (5613)**

Employment services include establishments that: list employment vacancies and refer/recruit/place applicants; supply temporary workers to clients' businesses, and provide HR and HR management services. The industry group has three industries: employment placement agencies and executive search (56131), temporary help (56132) and professional employer organizations (56133).

### **Business Support Services (5614)**

Business support services include establishments that perform ongoing routine business support functions that have been outsourced. The industry group has six industries: document preparation (56141), telephone call centers (56142), business service centers (56143), collection agencies (56144), credit bureaus (56145) and other business support (56149).

### **Travel Arrangement and Reservation Services (5615)**

Travel arrangement and reservation services include establishments that: sell travel, tours, and accommodations; arrange and assemble tours; and provide other related services. The industry group has three industries: travel agencies (56151), tour operators (56152) and other travel arrangement and reservation (56159).

### Investigation and Security Services (5616)

Investigation and security services includes establishments that provide investigation, detective, monitoring and protection services to properties/ persons or in transport or who sell, install or repair security systems. The industry group has two industries: investigation, guard, and armored car (56161) and security systems (56162).

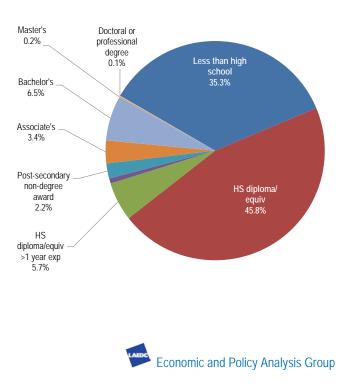
### Services to Buildings and Dwellings (5617)

Services to buildings and dwellings includes establishments that provide pest control; janitorial; landscaping, maintenance, carpet and upholstery cleaning and related services to client facilities. The industry group has five industries: exterminating and pest control (56171), janitorial (56172), landscaping (56173), carpet and upholstery cleaning (56174) and other services to buildings and dwellings (56179).

### **Other Support Services (5618)**

Other support services include establishments that provide day-to-day business and other organizational support services. The industry group has three industries: packaging and labeling (56181), convention and trade show organizers (56182) and all other support (56189).

### Entry Level Education and Experience



## Administrative and Support Services (cont'd)

## Industries within this subsector provide services that support the day-to-day operations of other organizations.

### Occupational Distribution of Administrative and Support Services in LA County

			Los Ang	geles County
		Nat'l share % of NAICS	Occupation Employment	Median Annual Earnings
Office and	Administrative Support Occupations	22.4%	49,821	
43-4051	Customer Service Representatives	5.0%	11,016	\$ 35,296
43-9061	Office Clerks, General	3.5%	7,845	\$ 29,692
	Other Office and Administrative Support Occupations	13.9%	30,961	
Building ar	nd Grounds Cleaning and Maintenance Occupations	22.1%	49,270	
37-2011	Janitors and Cleaners, Except Maids and Housekeeping Cleaners	11.1%	24,654	\$ 22,747
37-3011	Landscaping and Groundskeeping Workers	6.2%	13,902	\$ 24,570
	Other Building and Grounds Cleaning and Maint Occupations	4.8%	10,714	
Protective	Service Occupations	9.8%	21,743	
33-9032	Security Guards	8.7%	19,274	\$ 24,286
	Other Protective Service Occupations	1.1%	2,469	
All Other Ir	ndustry Occupations	45.7%	101,688	
Total*	Across All Occupations in the Industry	100.0%	222,522	

Sources: BLS, CA EDD, estimates by LAEDC \*May not sum due to rounding

### Waste Management and Remediation Services (NAICS 562)

Industries within this subsector are engaged in the collection, treatment and disposal of waste materials.

### Waste Collection (5621)

Waste collection establishments are primarily engaged in the collection and/or hauling of hazardous wastes and/or recyclable materials within a local area and/or operating hazardous or nonhazardous waste transfer stations. The industry group has one industry: waste collection (5621).

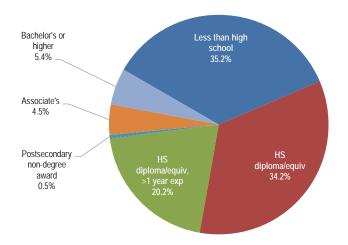
### Waste Treatment and Disposal (5622)

Waste treatment and disposal firms are mainly involved in operating waste treatment or disposal facilities or the combined activity of collecting and/or hauling waste materials within a local area and operating waste treatment or disposal facilities. The industry group has one industry: waste treatment and disposal (56221).

## Remediation and Other Waste Management Services (5629)

Remediation and other waste management services firms are mainly engaged in remediation and cleanup of contaminated buildings, mine sites, soil or ground water, integrated mine reclamation activities and asbestos, lead paint and other toxic material abatement. The industry group has three industries: remediation services (56291), materials recovery facilities (56292), and all other waste management services (56299).

### Entry Level Education and Experience





## Waste Management and Remediation Services (cont'd)

### Industries within this subsector are engaged in the collection, treatment and disposal of waste materials.

### Occupational Distribution of Waste Management and Remediation Services in LA County

		Nat'l share	Los An <u>c</u> Occupation	jeles County Median
		% of NAICS	Employment	Annual Earnings
Transporta	tion and Material Moving Occupations	44.0%	4,007	
53-7081	Refuse and Recyclable Material Collectors	19.1%	1,737	\$43,259
53-3032	Heavy and Tractor-Trailer Truck Drivers	12.6%	1,146	\$41,482
53-7062	Laborers and Freight, Stock, and Material Movers, Hand	5.5%	505	\$23,147
	Other Transportation and Material Moving Occupations	6.8%	620	
Constructi	on and Extraction Occupations	20.0%	1,821	
47-4041	Hazardous Materials Removal Workers	8.1%	734	\$38,867
47-4071	Septic Tank Servicers and Sewer Pipe Cleaners	3.9%	357	\$34,413
47-2061	Construction Laborers	2.8%	252	\$37,396
47-2073	Operating Engineers and Other Construction Equipment Operators	2.1%	190	\$78,266
47-1011	First-Line Supervisors of Construction Trades and Extraction Workers	2.0%	182	\$72,615
	Other Construction and Extraction Occupations	1.2%	105	
Office and	Administrative Support Occupations	12.2%	1,110	
43-9061	Office Clerks, General	2.7%	250	\$29,692
43-6014	Secretaries and Administrative Assistants, Except Legal, Medical, and Executive	2.0%	179	\$36,040
	Other Office and Administrative Support Occupations	9.5%	860	
All Other I	ndustry Occupations	23.7%	2,160	
Total*	Across All Occupations in the Industry	100.0%	9,098	
Sources: BLS, ( *May not sum d	CA EDD, estimates by LAEDC ue to rounding			

### Ambulatory Health Care Services (NAICS 621)

Industries within this subsector provide health care services to ambulatory patients.

### Offices of Physicians (6211)

Offices of physicians includes establishments with health practitioners with the degree of M.D. or D.O. who independently practice general or specialized medicine or surgery in their own offices or the facilities of others. The industry group has one industry: offices of physicians (62111).

### Offices of Dentists (6212)

Offices of dentists includes establishments with health practitioners with the degree of D.M.D., D.D.S. or D.D.Sc. who independently practice general or specialized dentistry or dental surgery in their own offices or the facilities of others. The industry group has one industry: offices of dentists (62121).

### Offices of Other Health Practitioners (6213)

Offices of other health practitioners includes establishments of independent health practitioners other than physicians and dentists. The industry group has five industries: offices of chiropractors (62131), offices of optometrists (62132), offices of mental health practitioners (except physicians) (62133), offices of physical, occupational and speech therapists, and audiologists (62134) and offices of all other health practitioners (62139).

### **Outpatient Care Centers (6214)**

Outpatient care centers includes establishments that provide outpatient care. The industry group has three industries: family planning centers (62141), outpatient mental health and substance abuse centers (62142) and other outpatient care centers (62149).

### Medical and Diagnostic Laboratories (6215)

Medical and diagnostic laboratories includes establishments that provide analytic or diagnostic services to the medical profession or patient on referral. The industry group has one industry: medical and diagnostic laboratories (62151).

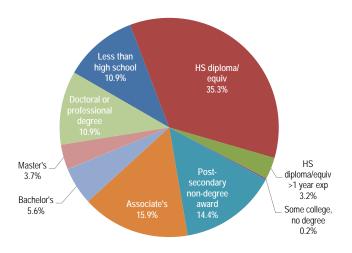
### Home Health Care Services (6216)

Home health care services include establishments that provide in-home skilled nursing or other medical and/or personal care services. The industry group has one industry: home health care services (62161).

### Other Ambulatory Health Care Services (6219)

Other ambulatory health care services include establishments that provide ambulatory health care services not previously listed. The industry group has two industries: ambulance services (62191) and all other ambulatory health care services (62199).

Entry Level Education and Experience





## Ambulatory Health Care Services (cont'd)

### Industries within this subsector provide health care services to ambulatory patients.

### Occupational Distribution of Ambulatory Health Care Services in LA County

		Los Angeles County		jeles County
		Nat'l share % of NAICS	Occupation Employment	Median Annual Earnings
Healthcare	e Practitioners and Technical Occupations	36.2%	64,824	
29-1111	Registered Nurses*	8.6%	15,428	\$ 85,178
29-2061	Licensed Practical and Licensed Vocational Nurses	3.1%	5,591	\$ 50,213
29-2021	Dental Hygienists	3.0%	5,351	\$ 100,378
29-1069	Physicians and Surgeons, All Other	2.8%	5,065	> \$ 187,200
29-2041	Emergency Medical Technicians and Paramedics	1.9%	3,389	\$ 27,477
	Other Healthcare Practitioners and Technical Occupations	16.7%	30,000	
Office and	Administrative Support Occupations	26.2%	46,996	
43-6013	Medical Secretaries	5.6%	9,982	\$ 33,483
43-4171	Receptionists and Information Clerks	5.5%	9,844	\$ 27,400
43-9061	Office Clerks, General	3.2%	5,709	\$ 29,692
43-3021	Billing and Posting Clerks	2.4%	4,285	\$ 35,095
43-1011	First-Line Supervisors of Office and Administrative Support Workers	2.2%	3,946	\$ 56,230
43-6014	Secretaries and Administrative Assistants, Except Legal, Medical and Executive	1.9%	3,370	\$ 36,040
	Other Office and Administrative Support Occupations	5.5%	9,860	
Healthcare	e Support Occupations	22.5%	40,332	
31-9092	Medical Assistants	7.1%	12,653	\$ 30,362
31-1011	Home Health Aides	5.7%	10,256	\$ 20,913
31-9091	Dental Assistants	4.7%	8,392	\$ 32,631
	Other Healthcare Support Occupations	5.0%	9,031	
All Other I	ndustry Occupations	15.1%	27,105	
Total*	Across All Occupations in the Industry	100.0%	179,257	

Sources: BLS, CA EDD, estimates by LAEDC \*May not sum due to rounding



### Hospitals (NAICS 622)

Industries within this subsector provide medical, diagnostic and treatment services to inpatients.

### General Medical and Surgical Hospitals (6221)

General medical and surgical hospitals include establishments that provide inpatient diagnostic and surgical and nonsurgical medical treatment. The industry group has one industry: general medical and surgical hospitals (62211).

### Psychiatric and Substance Abuse Hospitals (6222)

Psychiatric and substance abuse hospitals include establishments that provide inpatient diagnostic, medical treatment and monitoring services for mental illness or substance abuse disorders. The industry group has one industry: psychiatric and substance abuse hospitals (62221).

### Specialty (except Psychiatric and Substance Abuse) Hospitals (6223)

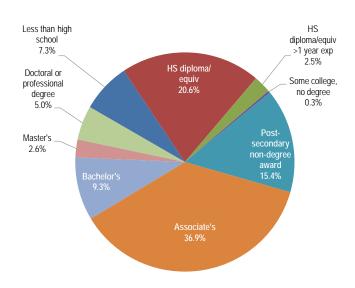
Specialty (except psychiatric and substance abuse) hospitals includes establishments that provide inpatient diagnostic and medical treatment for specific diseases or medical conditions, except psychiatric or substance abuse. The industry group has one industry: specialty (except psychiatric and substance abuse) hospitals (62231).

### Occupational Distribution of Hospitals in LA County

		Los Angeles County		
		Nat'l share	Occupation	Median
		% of NAICS	Employment	Annual Earnings
Healthcare	Practitioners and Technical Occupations	54.2%	59,356	
29-1111	Registered Nurses*	29.4%	32,249	\$ 85,178
29-2061	Licensed Practical and Licensed Vocational Nurses	2.7%	3,012	\$ 50,213
29-2037	Radiologic Technologists and Technicians*	2.4%	2,625	\$ 64,603
29-2011	Medical and Clinical Laboratory Technologists	1.8%	1,938	\$ 79,046
	Other Healthcare Practitioners and Technical Occupations	17.8%	19,531	
Office and	Administrative Support Occupations	14.0%	15,295	
43-6013	Medical Secretaries	2.5%	2,706	\$ 33,483
43-9061	Office Clerks, General	1.8%	1,965	\$ 29,692
	Other Office and Administrative Support Occupations	9.7%	10,625	
Healthcare	e Support Occupations	12.7%	13,973	
31-1012	Nursing Aides, Orderlies, and Attendants*	7.4%	8,062	\$ 26,078
	Other Healthcare Support Occupations	5.4%	5,911	
All Other Ir	ndustry Occupations	19.1%	20,981	
Total*	Across All Occupations in the Industry	100.0%	109,604	
Sources: BLS, (	CA EDD, estimates by LAEDC			

SBLS CAFDD e \*May not sum due to rounding

### Entry Level Education and Experience



### Nursing and Residential Care Facilities (NAICS 623)

Industries within this subsector provide residential care combined with either nursing, supervisory or other types of care as required by the residents.

## Nursing Care Facilities (Skilled Nursing Facilities) (6231)

Nursing care facilities (skilled nursing facilities) includes establishments that provide long-term inpatient nursing and rehabilitative services. The industry group has one industry: nursing care facilities (skilled nursing facilities) (62311).

### Residential Intellectual and Developmental Disability, Mental Health, and Substance Abuse Facilities (6232)

Residential intellectual and developmental disability, mental health, and substance abuse facilities includes establishments that provide residential care (not licensed hospital care) to those with intellectual and developmental disabilities, mental illness, or substance abuse problems. The industry group has two industries: residential intellectual and developmental disability facilities (31213) and residential mental health and substance abuse facilities (31214).

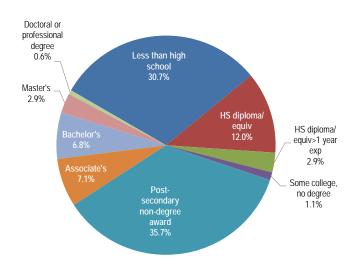
### Continuing Care Retirement Communities and Assisted Living Facilities for the Elderly (6233)

Continuing care retirement communities and assisted living facilities for the elderly includes establishments that provide residential and personal care for those unable to care for themselves or who do not want to live independently. The industry group has one industry.

#### **Other Residential Care Facilities (6239)**

Other residential care facilities include establishments that provide residential, supervision and personal care not listed previously. These establishments also provide supervision and personal care services. The industry group has one industry: other residential care facilities (62399).

### Entry Level Education and Experience



## Nursing and Residential Care Facilities (cont'd)

Industries within this subsector provide residential care combined with either nursing, supervisory or other types of care as required by the residents.

			•	geles County
Hoalthear	e Support Occupations	Nat'l share % of NAICS 39.5%	Occupation Employment 27,493	Median Annual Earnings
				¢24.070
31-1012	Nursing Aides, Orderlies, and Attendants*	26.4%	18,364	\$26,078
31-1011	Home Health Aides	11.2%	7,805	\$20,913
	Other Healthcare Support Occupations	1.9%	1,323	
Healthcare	Practitioners and Technical Occupations	17.0%	11,820	
29-2061	Licensed Practical and Licensed Vocational Nurses	8.5%	5,942	\$50,213
29-1111	Registered Nurses*	5.8%	4,012	\$85,178
	Other Healthcare Practitioners and Technical Occupations	2.7%	1,866	
Food Prep	aration and Serving Related Occupations	10.4%	7,255	
35-2012	Cooks, Institution and Cafeteria	2.8%	1,960	\$ 27,206
35-3041	Food Servers, Nonrestaurant	2.6%	1,823	\$ 22,908
	Other Sales and Related Occupations	5.0%	3,472	
All Other I	ndustry Occupations	33.2%	23,121	
Total*	Across All Occupations in the Industry	100.0%	69,688	

\*May not sum due to rounding



### Accommodation (NAICS 721)

Industries within this subsector provide lodging or short-term accommodations for travelers and vacationers.

#### **Traveler Accommodation (7211)**

Traveler accommodation establishments provide shortterm lodging in hotels, motor hotels, resort hotels and motels. Some firms might provide short term lodging in hotel facilities with a casino on the premises. Other establishments provide short-term lodging but exclude hotels, motels and casino hotels. The industry group has three industries: hotels (except casino hotels) and motels (72111), casino hotels (72112), and other traveler accommodation (72119).

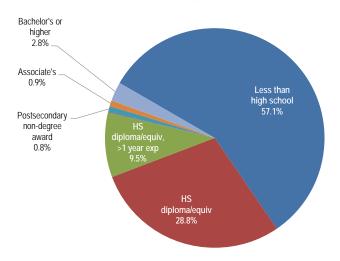
## *RV* (*Recreational Vehicle*) *Parks and Recreational Camps* (7212)

Recreational Vehicle (RV) Parks and Recreational Camps are establishments that are primarily engaged in operating rv parks and campgrounds and recreational and vacation camps. The industry group has one industry: RV (recreational vehicle) parks and recreational camps (72121).

### Rooming and Boarding Houses (7213)

Establishments are engaged in operating rooming and boarding houses and similar housing, including fraternity and sorority houses, off-campus dormitories, residential club and workers' camps. The industry group has one industry.

#### Entry Level Education and Experience



### Occupational Distribution of Accommodation Industry in LA County

			Los Ang	geles County
		Nat'l share % of NAICS	Occupation Employment	Median Annual Earnings
Building and Grounds Cleaning and Maintenan	ce Occupations	29.4%	11,700	
37-2012 Maids and Housekeeping Cleaners		23.7%	9,436	\$21,507
37-2011 Janitors and Cleaners, Except Maids	and Housekeeping Cleaners	2.8%	1,100	\$22,747
Other Building and Grounds Cleanin	g and Maintenance Occupations	2.9%	1,164	
Food Preparation and Serving Related Occupa	itions	25.1%	9,992	
35-3031 Waiters and Waitresses		7.3%	2,925	\$18,868
35-2014 Cooks, Restaurant		3.3%	1,299	\$22,428
35-9011 Dining Room and Cafeteria Attendan	ts and Bartender Helpers	2.4%	971	\$18,753
35-3011 Bartenders		2.0%	810	\$19,222
35-3041 Food Servers, Nonrestaurant		1.9%	771	\$22,908
Other Food Preparation and Serving	Related Occupations	8.1%	3,216	
Office and Administrative Support Occupations		19.0%	7,564	
43-4081 Hotel, Motel, and Resort Desk Clerks		12.3%	4,905	\$22,388
Other Office and Administrative Supp	ort Occupations	6.7%	2,659	
All Other Industry Occupations		26.6%	10,588	
Total* Across All Occupations in the	Industry	100.0%	39,844	
Sources: BLS, CA EDD, estimates by LAEDC *May not sum due to rounding				

## Food Services and Drinking Places (NAICS 722)

Industries within this subsector prepare to order meals, snacks, and beverages for immediate customers consumption, either on- or off-premises.

### Special Food Services (7223)

Special food services include establishments that provide off-premises food services at either the customer's location, a location designated by the customer, or from a food truck or food cart. The industry group has three industries: food service contractors (72231), caterers (72232) and restaurants and other eating places (72233).

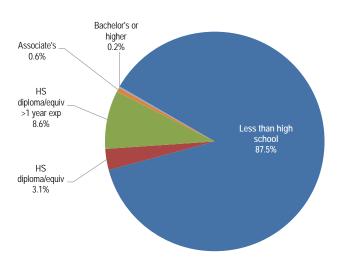
### Drinking Places (Alcoholic Beverages) (7224)

Drinking places includes establishments primarily engaged in preparing and serving alcoholic beverages for immediate consumption, and may have limited food service. The industry group has one industry: drinking places (alcoholic beverages) (72241).

### Restaurants and Other Eating Places (7225)

Restaurants and other eating places include establishments that provide on-premises food services and include: full-service restaurants, limited-service restaurants, cafeterias, buffets and snack and nonalcoholic beverage bars. The industry group has one industry: restaurants and other eating places (72251).

### Entry Level Education and Experience



### Occupational Distribution of Food Services and Drinking Places in LA County

			Los Angeles County		
		Nat'l share % of NAICS	Occupation Employment	Median Annual Earnings	
Food Prepa	ration and Serving Related Occupations	90.2%	258,144		
35-3021	Combined Food Preparation and Serving Workers, Including Fast Food	24.4%	69,772	\$ 18,953	
35-3031	Waiters and Waitresses	20.9%	59,692	\$ 18,868	
35-2014	Cooks, Restaurant	8.8%	25,097	\$ 22,428	
35-1012	First-Line Supervisors of Food Preparation and Serving Workers	6.3%	17,998	\$ 27,326	
35-2011	Cooks, Fast Food	5.0%	14,354	\$ 18,684	
35-2021	Food Preparation Workers	4.3%	12,413	\$ 19,148	
35-9021	Dishwashers	4.3%	12,171	\$ 18,891	
35-3011	Bartenders	4.0%	11,541	\$ 19,222	
35-9031	Hosts and Hostesses, Restaurant, Lounge, and Coffee Shop	3.1%	8,900	\$ 19,251	
35-9011	Dining Room and Cafeteria Attendants and Bartender Helpers	3.0%	8,451	\$ 18,753	
35-3022	Counter Attendants, Cafeteria, Food Concession, and Coffee Shop	2.9%	8,255	\$ 19,217	
35-2015	Cooks, Short Order	1.4%	3,962	\$ 23,375	
	Other Food Preparation and Serving Related Occupations	1.9%	5,538		
All Other In	dustry Occupations	9.8%	27,949		
Total*	Across All Occupations in the Industry	100.0%	286,093		
Sources: BLS, C	A EDD, estimates by LAEDC				





# APPENDICES

## A1 Detailed Tables

#### Exhibit A-1

Private Sector Industry Employment NELA 2011

NAICS	Industry	Employ- ment	% of total
211	Oil and gas extraction	0	-
212	Mining, except oil and gas	9	0.0%
213	Support activities for mining	0	-
221	Utilities	49	0.2%
236	Construction of buildings	166	0.8%
237	Heavy and civil engineering construction	19	0.1%
238	Specialty trade contractors	962	4.8%
311	Food manufacturing	463	2.3%
312	Beverage and tobacco prod manufacturing	438	2.2%
313	Textile mills	73	0.4%
314	Textile product mills	143	0.7%
315	Apparel manufacturing	433	2.2%
316	Leather and allied product manufacturing	0	-
321	Wood product manufacturing	62	0.3%
322	Paper manufacturing	0	-
323	Printing and related support activities	303	1.5%
324	Petroleum and coal prods manufacturing	0	-
325	Chemical manufacturing	492	2.5%
326	Plastics and rubber prods manufacturing	99	0.5%
327	Nonmetallic mineral prod manufacturing	41	0.2%
331	Primary metal manufacturing	83	0.4%
332	Fabricated metal product manufacturing	523	2.6%
333	Machinery manufacturing	191	1.0%
334	Computer / electronic prod manufacturing	912	4.6%
335	Electrical equipment and appliance mfg.	22	0.1%
336	Transportation equipment manufacturing	107	0.5%
337	Furniture manufacturing	31	0.2%
339	Miscellaneous manufacturing	157	0.8%
423	Merchant wholesalers, durable goods	405	2.0%
424	Merchant wholesalers, nondurable goods	562	2.8%
425	Electronic markets and agents	41	0.2%
441	Motor vehicle and parts dealers	189	0.9%
442	Furniture and home furnishings stores	69 20	0.3%
443	Electronics and appliance stores	30	0.2% 1.6%
444	Building material and garden supply stores Food and beverage stores	328 540	2.8%
445 446	5	549 109	
440 447	Health and personal care stores Gasoline stations	108 42	0.5% 0.2%
447		42 51	0.2%
440 451	Clothing and clothing accessories stores Sporting, hobby, book / music stores	129	0.3%
451	General merchandise stores	528	2.6%
452	Miscellaneous store retailers	335	1.7%
455 454	Nonstore retailers	83	0.4%
404 481	Air transportation	03 0	0.470
401	Rail transportation	0	
402 483	Water transportation	4	0.0%
405		4	0.070

NAICS	Industry	Employ- ment	% of total
484	Truck transportation	26	0.1%
485	Transit and ground passenger transport	25	0.1%
486	Pipeline transportation	0	-
487	Scenic and sightseeing transportation	0	-
488	Support activities for transportation	15	0.1%
491	Postal service	0	0.0%
492	Couriers and messengers	265	1.3%
493	Warehousing and storage	274	1.4%
511	Publishing industries, except internet	13	0.1%
512	Motion picture and sound recording	378	1.9%
515	Broadcasting, except internet	259	1.3%
517	Telecommunications	131	0.7%
518	Data processing, hosting, related services	12	0.1%
519	Other information services	8	0.0%
521	Monetary authorities - central bank	0	-
522	Credit intermediation and related activities	277	1.4%
523	Securities, commodities, investments	5	0.0%
524	Insurance carriers and related activities	91	0.5%
525	Funds, trusts, and other financial vehicles	0	-
531	Real estate	240	1.2%
532	Rental and leasing services	286	1.4%
533	Lessors of nonfinancial intangible assets	0	-
541	Professional and technical services	526	2.6%
551	Management of companies / enterprises	195	1.0%
561	Administrative and support services	488	2.4%
562	Waste mgmt and remediation services	24	0.1%
611	Educational services	286	1.4%
621	Ambulatory health care services	788	4.0%
622	Hospitals	0	-
623	Nursing and residential care facilities	19	0.1%
624	Social assistance	1,056	5.3%
711	Performing arts and spectator sports	63	0.3%
712	Museums, historical sites, zoos, and parks	0	-
713	Amusements, gambling, and recreation	52	0.3%
721	Accommodation	32	0.2%
722	Food services and drinking places	1,127	5.6%
811	Repair and maintenance	707	3.5%
812	Personal and laundry services	204	1.0%
813	Membership associations and orgs	150	0.8%
Sources:	California Employment Development Department: LA	FDC	

Sources: California Employment Development Department; LAEDC

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#### Exhibit A-2

## Private Sector Industry Employment Greater NELA 2011

NAICS	Industry	Employ- ment	% of total
211	Oil and gas extraction	12	0.0%
212	Mining, except oil and gas	78	0.0%
213	Support activities for mining	18	0.0%
221	Utilities	116	0.0%
236	Construction of buildings	844	0.3%
237	Heavy and civil engineering construction	104	0.0%
238	Specialty trade contractors	1,806	0.7%
311	Food manufacturing	2,914	1.2%
312	Beverage and tobacco prod manufacturing	333	0.1%
313	Textile mills	77	0.0%
314	Textile product mills	81	0.0%
315	Apparel manufacturing	1,162	0.5%
316	Leather and allied product manufacturing	19	0.0%
321	Wood product manufacturing	75	0.0%
322	Paper manufacturing	19	0.0%
323	Printing and related support activities	517	0.2%
324	Petroleum and coal prods manufacturing		0.0%
325	Chemical manufacturing	1,561	0.6%
326	Plastics and rubber prods manufacturing	119	0.0%
327	Nonmetallic mineral prod manufacturing	54	0.0%
331	Primary metal manufacturing	77	0.0%
332	Fabricated metal product manufacturing	768	0.3%
333	Machinery manufacturing	197	0.1%
334	Computer / electronic prod manufacturing	509	0.2%
335	Electrical equipment and appliance mfg.	40	0.0%
336	Transportation equipment manufacturing	244	0.1%
337	Furniture manufacturing	118	0.0%
339	Miscellaneous manufacturing	210	0.1%
423	Merchant wholesalers, durable goods	1,884	0.8%
424	Merchant wholesalers, nondurable goods	1,737	0.7%
425	Electronic markets and agents	185	0.1%
441	Motor vehicle and parts dealers	1,612	0.6%
442	Furniture and home furnishings stores	321	0.1%
443	Electronics and appliance stores	229	0.1%
444	Building material and garden supply stores	567	0.2%
445	Food and beverage stores	2,918	1.2%
446	Health and personal care stores	1,107	0.4%
447	Gasoline stations	202	0.1%
448	Clothing and clothing accessories stores	637	0.3%
451	Sporting, hobby, book / music stores	610	0.2%
452	General merchandise stores	1,044	0.4%
453	Miscellaneous store retailers	736	0.3%
454	Nonstore retailers	215	0.1%
481	Air transportation		0.0%
482	Rail transportation		0.0%
483	Water transportation	9	0.0%

NAICS	Industry	Employ- ment	% of total
484	Truck transportation	131	0.1%
485	Transit and ground passenger transport	1,152	0.5%
486	Pipeline transportation		0.0%
487	Scenic and sightseeing transportation	24	0.0%
488	Support activities for transportation	381	0.2%
491	Postal service		0.0%
492	Couriers and messengers	1,868	0.7%
493	Warehousing and storage	308	0.1%
511	Publishing industries, except internet	340	0.1%
512	Motion picture and sound recording	2,751	1.1%
515	Broadcasting, except internet	1,119	0.4%
517	Telecommunications	481	0.2%
518	Data processing, hosting, related services	35	0.0%
519	Other information services	47	0.0%
521	Monetary authorities - central bank	3	0.0%
522	Credit intermediation and related activities	3,731	1.5%
523	Securities, commodities, investments	486	0.2%
524	Insurance carriers and related activities	2,604	1.0%
525	Funds, trusts, and other financial vehicles	186	0.1%
531	Real estate	1,288	0.5%
532	Rental and leasing services	440	0.2%
533	Lessors of nonfinancial intangible assets	3	0.0%
541	Professional and technical services	7,822	3.1%
551	Management of companies / enterprises	2,209	0.9%
561	Administrative and support services	5,279	2.1%
562	Waste mgmt and remediation services	46	0.0%
611	Educational services	1,528	0.6%
621	Ambulatory health care services	10,977	4.4%
622	Hospitals	10,488	4.2%
623	Nursing and residential care facilities	2,402	1.0%
624	Social assistance	2,908	1.2%
711	Performing arts and spectator sports	3,003	1.2%
712	Museums, historical sites, zoos, and parks	378	0.2%
713	Amusements, gambling, and recreation	315	0.1%
721	Accommodation	722	0.3%
722	Food services and drinking places	10,386	4.2%
811	Repair and maintenance	1,365	0.5%
812	Personal and laundry services	2,008	0.8%
813	Membership associations and orgs	1,393	0.6%

Sources: California Employment Development Department; LAEDC



Competitiveness of Private Sector Industries NELA 2011 (Location Quotients v. Los Angeles County and US)

NAICS	Industry	LAC	US
211	Oil and gas extraction	0.0	0.0
212	Mining, except oil and gas	4.5	0.3
213	Support activities for mining	0.0	0.0
221	Utilities	0.7	0.6
236	Construction of buildings	1.2	0.9
237	Heavy and civil engineering construction	0.3	0.1
238	Specialty trade contractors	2.7	1.8
311	Food manufacturing	2.2	2.1
312	Beverage and tobacco prod manufacturing	16.5	15.3
313	Textile mills	2.0	3.9
314	Textile product mills	6.9	7.8
315	Apparel manufacturing	1.8	18.5
316	Leather and allied product manufacturing	0.0	0.0
321	Wood product manufacturing	3.8	1.2
322	Paper manufacturing	0.0	0.0
323	Printing and related support activities	3.6	4.2
324	Petroleum and coal prods manufacturing	0.0	0.0
325	Chemical manufacturing	4.9	4.1
326	Plastics and rubber prods manufacturing	1.4	1.0
327	Nonmetallic mineral prod manufacturing	1.5	0.7
331	Primary metal manufacturing	2.2	1.4
332	Fabricated metal product manufacturing	2.4	2.5
333	Machinery manufacturing	2.3	1.2
334	Computer / electronic prod manufacturing	3.9	5.3
335	Electrical equipment and appliance mfg.	0.4	0.4
336	Transportation equipment manufacturing	0.4	0.5
337	Furniture and related prod manufacturing	0.4	0.6
339	Miscellaneous manufacturing	1.6	1.8
423	Merchant wholesalers, durable goods	0.8	0.9
424	Merchant wholesalers, nondurable goods	1.2	1.9
425	Electronic markets and agents	0.4	0.3
441	Motor vehicle and parts dealers	0.9	0.7
442 443	Furniture and home furnishings stores Electronics and appliance stores	1.0 0.3	1.0
443 444		0.3 2.8	0.4 1.8
444 445	Building material and garden supply stores Food and beverage stores	2.8 1.2	1.8
445	Health and personal care stores	0.7	0.7
440 447	Gasoline stations	0.7	0.7
447	Clothing and clothing accessories stores	0.7	0.3
440	Sporting, hobby, book / music stores	0.2 1.4	0.z 1.4
451	General merchandise stores	1.4	1.4
452	Miscellaneous store retailers	2.6	2.8
453 454	Nonstore retailers	2.0 1.7	2.8 1.3
454 481	Air transportation	0.0	1.3 0.0
481	Rail transportation	0.0 N/A	0.0
482	Water transportation	0.3	0.0
705		0.5	0.4

NAICS	Industry	LAC	US
484	Truck transportation	0.2	0.1
485	Transit and ground passenger transport	0.4	0.4
486	Pipeline transportation	0.0	0.0
487	Scenic and sightseeing transportation	0.0	0.0
488	Support activities for transportation	0.1	0.2
491	Postal service	N/A	0.0
492	Couriers and messengers	2.7	3.3
493	Warehousing and storage	3.4	2.7
511	Publishing industries, except internet	0.2	0.1
512	Motion picture and sound recording	0.6	6.7
515	Broadcasting, except internet	2.6	5.9
517	Telecommunications	0.9	1.0
518	Data processing, hosting, related services	0.5	0.3
519	Other information services	0.2	0.3
521	Monetary authorities - central bank	0.0	0.0
522	Credit intermediation and related activities	0.7	0.7
523	Securities, commodities, investments	0.0	0.0
524	Insurance carriers and related activities	0.4	0.3
525	Funds, trusts, and other financial vehicles	0.0	0.0
531	Real estate	0.9	1.1
532	Rental and leasing services	2.9	3.7
533	Lessors of nonfinancial intangible assets	0.0	0.0
541	Professional and technical services	0.4	0.4
551	Management of companies / enterprises	0.7	0.7
561	Administrative and support services	0.4	0.4
562	Waste mgmt and remediation services	0.5	0.4
611	Educational services	0.6	0.7
621	Ambulatory health care services	0.8	0.8
622	Hospitals	0.0	0.0
623	Nursing and residential care facilities	0.1	0.0
624	Social assistance	3.3	2.7
711	Performing arts and spectator sports	0.4	1.0
712	Museums, historical sites, zoos, and parks	0.0	0.0
713	Amusements, gambling, and recreation	0.3	0.2
721	Accommodation	0.2	0.1
722	Food services and drinking places	0.7	0.8
811	Repair and maintenance	3.8	3.9
812	Personal and laundry services	0.8	1.0
813	Membership associations and orgs	0.7	0.7
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Sources: California Employment Development Department; estimates by LAEDC



### Competitiveness of Private Sector Industries Greater NELA 2011 (Location Quotients v. Los Angeles County and US)

NAICS	Industry	LAC	US
211	Oil and gas extraction	0.1	0.0
212	Mining, except oil and gas	3.1	0.2
213	Support activities for mining	0.2	0.0
221	Utilities	0.1	0.1
236	Construction of buildings	0.5	0.4
237	Heavy and civil engineering construction	0.1	0.1
238	Specialty trade contractors	0.4	0.3
311	Food manufacturing	1.1	1.0
312	Beverage and tobacco prod manufacturing	1.0	0.9
313	Textile mills	0.2	0.3
314	Textile product mills	0.3	0.4
315	Apparel manufacturing	0.4	4.0
316	Leather and allied product manufacturing	0.1	0.3
321	Wood product manufacturing	0.4	0.1
322 323	Paper manufacturing	0.0 0.5	0.0 0.6
323 324	Printing and related support activities	0.5	0.0
324 325	Petroleum and coal prods manufacturing Chemical manufacturing	0.0 1.2	0.0 1.0
325 326	Plastics and rubber prods manufacturing	0.1	0.1
320 327	Nonmetallic mineral prod manufacturing	0.1	0.1
327	Primary metal manufacturing	0.2	0.1
332	Fabricated metal product manufacturing	0.2	0.1
333	Machinery manufacturing	0.3	0.3
334	Computer / electronic prod manufacturing	0.2	0.2
335	Electrical equipment and appliance mfg.	0.1	0.1
336	Transportation equipment manufacturing	0.1	0.1
337	Furniture and related prod manufacturing	0.1	0.2
339	Miscellaneous manufacturing	0.2	0.2
423	Merchant wholesalers, durable goods	0.3	0.4
424	Merchant wholesalers, nondurable goods	0.3	0.5
425	Electronic markets and agents	0.1	0.1
441	Motor vehicle and parts dealers	0.6	0.5
442	Furniture and home furnishings stores	0.4	0.4
443	Electronics and appliance stores	0.2	0.2
444	Building material and garden supply stores	0.4	0.3
445	Food and beverage stores	0.5	0.5
446	Health and personal care stores	0.6	0.6
447	Gasoline stations	0.3	0.1
448	Clothing and clothing accessories stores	0.2	0.2
451	Sporting, hobby, book / music stores	0.5	0.5
452	General merchandise stores	0.2	0.2
453	Miscellaneous store retailers	0.4	0.5
454	Nonstore retailers	0.3	0.3
481	Air transportation	0.0	0.0
482	Rail transportation	N/A	0.0
483	Water transportation	0.0	0.1

Industry	LAC	US
Truck transportation	0.1	0.1
Transit and ground passenger transport	1.4	1.4
Pipeline transportation	0.0	0.0
Scenic and sightseeing transportation	0.6	0.5
Support activities for transportation	0.1	0.3
Postal service	N/A	0.0
Couriers and messengers	1.5	1.8
Warehousing and storage	0.3	0.2
Publishing industries, except internet	0.4	0.2
Motion picture and sound recording	0.3	3.9
Broadcasting, except internet	0.9	2.0
Telecommunications	0.3	0.3
Data processing, hosting, related services	0.1	0.1
Other information services	0.1	0.2
Monetary authorities - central bank	0.1	0.1
Credit intermediation and related activities	0.8	0.8
Securities, commodities, investments	0.3	0.3
Insurance carriers and related activities	0.9	0.7
Funds, trusts, and other financial vehicles	1.3	1.1
Real estate	0.4	0.5
Rental and leasing services	0.4	0.5
Lessors of nonfinancial intangible assets	0.0	0.1
Professional and technical services	0.5	0.5
Management of companies / enterprises	0.6	0.6
Administrative and support services	0.4	0.4
Waste mgmt and remediation services	0.1	0.1
Educational services	0.2	0.3
Ambulatory health care services	0.9	0.9
Hospitals	1.4	1.2
Nursing and residential care facilities	0.5	0.4
Social assistance	0.7	0.6
Performing arts and spectator sports	1.5	3.9
Museums, historical sites, zoos, and parks	1.3	1.5
Amusements, gambling, and recreation	0.1	0.1
Accommodation	0.3	0.2
Food services and drinking places	0.5	0.6
Repair and maintenance	0.6	0.6
Personal and laundry services	0.7	0.8
Membership associations and orgs	0.6	0.5
	Truck transportation Transit and ground passenger transport Pipeline transportation Scenic and sightseeing transportation Postal service Couriers and messengers Warehousing and storage Publishing industries, except internet Motion picture and sound recording Broadcasting, except internet Telecommunications Data processing, hosting, related services Other information services Monetary authorities - central bank Credit intermediation and related activities Securities, commodities, investments Insurance carriers and related activities Funds, trusts, and other financial vehicles Real estate Rental and leasing services Lessors of nonfinancial intangible assets Professional and technical services Administrative and support services Administrative and support services Educational services Ambulatory health care services Hospitals Nursing and residential care facilities Social assistance Performing arts and spectator sports Museums, historical sites, zoos, and parks Amusements, gambling, and recreation Accommodation Food services and drinking places Repair and maintenance Personal and laundry services	Truck transportation0.1Transit and ground passenger transport1.4Pipeline transportation0.0Scenic and sightseeing transportation0.1Postal serviceN/ACouriers and messengers1.5Warehousing and storage0.3Publishing industries, except internet0.4Motion picture and sound recording0.3Broadcasting, except internet0.9Telecommunications0.3Data processing, hosting, related services0.1Other information services0.1Monetary authorities - central bank0.1Credit intermediation and related activities0.8Securities, commodities, investments0.3Insurance carriers and related activities0.9Funds, trusts, and other financial vehicles1.3Real estate0.4Rental and leasing services0.4Lessors of nonfinancial intangible assets0.0Professional and technical services0.5Management of companies / enterprises0.6Administrative and support services0.1Educational services0.2Ambulatory health care services0.5Social assistance0.7Performing arts and spectator sports1.5Museums, historical sites, zoos, and parks1.3Amusements, gambling, and recreation0.1Accommodation0.3Food services and drinking places0.5Repair and maintenance0.6Personal and laundry services0.

Sources: California Employment Development Department; estimates by LAEDC



## Projected New Job Creation 2011-2022 NELA

NAICS	Industry	Number of New Jobs
211	Oil and gas extraction	
212	Mining, except oil and gas	-1
213	Support activities for mining	
221	Utilities	2
236	Construction of buildings	33
237	Heavy and civil engineering construction	8
238	Specialty trade contractors	330
311	Food manufacturing	-1
312	Beverage and tobacco prod manufacturing	21
313	Textile mills	-10
314	Textile product mills	-19
315	Apparel manufacturing	-47
316	Leather and allied product manufacturing	
321	Wood product manufacturing	6
322	Paper manufacturing	
323	Printing and related support activities	0
324	Petroleum and coal prods manufacturing	
325	Chemical manufacturing	35
326	Plastics and rubber prods manufacturing	9
327	Nonmetallic mineral prod manufacturing	9
331	Primary metal manufacturing	1
332	Fabricated metal product manufacturing	50
333	Machinery manufacturing	3
334	Computer / electronic prod manufacturing	109
335	Electrical equipment and appliance mfg.	1
336	Transportation equipment manufacturing	-10
337	Furniture and related prod manufacturing	2
339	Miscellaneous manufacturing	-8
423	Merchant wholesalers, durable goods	-22
424	Merchant wholesalers, nondurable goods	2
425	Electronic markets and agents	13
441	Motor vehicle and parts dealers	-10
442	Furniture and home furnishings stores	-11
443	Electronics and appliance stores	-4
444	Building material and garden supply stores	-3
445	Food and beverage stores	17
446	Health and personal care stores	7
447	Gasoline stations	-2
448	Clothing and clothing accessories stores	5
451	Sporting, hobby, book / music stores	-3
452	General merchandise stores	54
453	Miscellaneous store retailers	-60
454	Nonstore retailers	18
481	Air transportation	
482 483	Rail transportation Water transportation	0
405		0

NAICS	Industry	Number of New Jobs
484	Truck transportation	2
485	Transit and ground passenger transport	2
486	Pipeline transportation	
487	Scenic and sightseeing transportation	
488	Support activities for transportation	1
491	Postal service	0
492	Couriers and messengers	17
493	Warehousing and storage	18
511	Publishing industries, except internet	0
512	Motion picture and sound recording	87
515	Broadcasting, except internet	18
517	Telecommunications	-19
518	Data processing, hosting, related services	0
519	Other information services	3
521	Monetary authorities - central bank	
522	Credit intermediation and related activities	70
523	Securities, commodities, investments	1
524	Insurance carriers and related activities	23
525	Funds, trusts, and other financial vehicles	
531	Real estate	36
532	Rental and leasing services	43
533	Lessors of nonfinancial intangible assets	
541	Professional and technical services	108
551	Management of companies / enterprises	17
561	Administrative and support services	211
562	Waste mgmt and remediation services	10
611	Educational services	308
621	Ambulatory health care services	201
622	Hospitals	
623	Nursing and residential care facilities	5
624	Social assistance	270
711	Performing arts and spectator sports	10
712	Museums, historical sites, zoos, and parks	
713	Amusements, gambling, and recreation	8
721	Accommodation	9
722	Food services and drinking places	313
811	Repair and maintenance	17
812	Personal and laundry services	21
813	Membership associations and orgs	13
C		

Source: Estimates by LAEDC

Projected New Job Creation 2011-2022 Greater NELA

NAICS	Industry	Number of New Jobs
211	Oil and gas extraction	0
212	Mining, except oil and gas	-9
213	Support activities for mining	-2
221	Utilities	0
236	Construction of buildings	170
237	Heavy and civil engineering construction	46
238	Specialty trade contractors	623
311	Food manufacturing	-8
312	Beverage and tobacco prod manufacturing	16
313	Textile mills	-10
314	Textile product mills	-11
315	Apparel manufacturing	-127
316	Leather and allied product manufacturing	9
321	Wood product manufacturing	7
322	Paper manufacturing	-2
323	Printing and related support activities	0
324	Petroleum and coal prods manufacturing	0
325	Chemical manufacturing	112
326	Plastics and rubber prods manufacturing	11
327	Nonmetallic mineral prod manufacturing	12
331	Primary metal manufacturing	1
332	Fabricated metal product manufacturing	73
333	Machinery manufacturing	3
334	Computer / electronic prod manufacturing	61
335	Electrical equipment and appliance mfg.	3
336	Transportation equipment manufacturing	-23
337	Furniture and related prod manufacturing	9
339	Miscellaneous manufacturing	-10
423	Merchant wholesalers, durable goods	-105
424	Merchant wholesalers, nondurable goods	6
425	Electronic markets and agents	61
441	Motor vehicle and parts dealers	-83
442	Furniture and home furnishings stores	-50
443	Electronics and appliance stores	-29
444	Building material and garden supply stores	-5
445	Food and beverage stores	93
446	Health and personal care stores	67
447	Gasoline stations	-12
448	Clothing and clothing accessories stores	65
451	Sporting, hobby, book / music stores	-15
452	General merchandise stores	107
453	Miscellaneous store retailers	-133
454	Nonstore retailers	48
481	Air transportation	0
482	Rail transportation	0
483	Water transportation	1

NAICS	Industry	Number of New Jobs
484	Truck transportation	9
485	Transit and ground passenger transport	76
486	Pipeline transportation	0
487	Scenic and sightseeing transportation	2
488	Support activities for transportation	25
491	Postal service	0
492	Couriers and messengers	124
493	Warehousing and storage	20
511	Publishing industries, except internet	-7
512	Motion picture and sound recording	639
515	Broadcasting, except internet	76
517	Telecommunications	-71
518	Data processing, hosting, related services	1
519	Other information services	19
521	Monetary authorities - central bank	1
522	Credit intermediation and related activities	951
523	Securities, commodities, investments	124
524	Insurance carriers and related activities	663
525	Funds, trusts, and other financial vehicles	47
531	Real estate	195
532	Rental and leasing services	67
533	Lessors of nonfinancial intangible assets	1
541	Professional and technical services	1,617
551	Management of companies / enterprises	195
561	Administrative and support services	2,290
562	Waste mgmt and remediation services	20
611	Educational services	863
621	Ambulatory health care services	2,817
622	Hospitals	2,691
623	Nursing and residential care facilities	616
624	Social assistance	746
711	Performing arts and spectator sports	459
712	Museums, historical sites, zoos, and parks	58
713	Amusements, gambling, and recreation	48
721	Accommodation	201
722	Food services and drinking places	2,895
811	Repair and maintenance	34
812	Personal and laundry services	211
813	Membership associations and orgs	121

Source: Estimates by LAEDC



## A2 Study Authors

### Christine Cooper, Ph.D.

Vice President, Economic and Policy Analysis Group

Dr. Cooper leads the Economic and Policy Analysis Group whose work involves research in regional issues such as economic impact studies, regional industry analysis and forecasts, and workforce development analysis. Her fields of expertise include development economics, environmental economics, regional analysis and urban sustainability.

Prior to joining the LAEDC, Dr. Cooper was a co-founder of a start-up company in Hong Kong concentrating on equity transactions software and computer accessories manufacturing, which expanded production into the special economic zone of Shenzhen, China and distributed products throughout the United States and Asia. With her business partner, she also established the first authorized Apple Computer retailer in China. She has been a lecturer at California State University, Long Beach and at the Pepperdine Graziadio School of Business and Management.

Dr. Cooper is a citizen of the United States and Canada. She earned a Bachelor of Arts in Economics from Carleton University in Ottawa, Canada, and a Ph.D. in Economics from the University of Southern California. With funding from the National Science Foundation, she earned a Graduate Certificate in Environmental Sciences, Policy and Engineering. Her current research includes industry cluster analysis, commuting and job allocation patterns, and workforce development issues.

### Shannon M. Sedgwick

Associate Economist

In her current capacity as an Associate Economist at the LAEDC, Ms. Sedgwick develops subject-specific information and data interpretation for economic impact, demographic, transportation, industry and issue studies. She performs research, data collection and organization, analysis and report preparation. Her work focuses on demographics, industry clusters and workforce development analysis. Ms. Sedgwick is also proficient at conducting geospatial analysis.

Ms. Sedgwick joined the LAEDC team in June of 2008 as an Economic Research Assistant for the Kyser Center for Economic Research. In that role she assisted both Economic Research and the Consulting Practice of the LAEDC with data collection and research, managing multiple data sets covering the State of California, its counties and sub-regions. In addition to writing sections of LAEDC's Economic Forecasts, she was responsible for the "Business Scan," a collection of Los Angeles County economic indicators; the annual "L.A. Stats," containing the most frequently requested statistics for Los Angeles and surrounding counties; and was a regular contributor to the weekly economic newsletter, "e-Edge."

Before joining the LAEDC, Ms. Sedgwick managed an industrial and steel supply company located in the Inland Empire. There she identified and targeted a diverse customer base, and analyzed product and customer patterns in the local industrial market to successfully increase revenues.

A Southern California native, Ms. Sedgwick received her Bachelor of Arts in Economics from the University of Southern California (USC) with a minor in Architecture. She has been a member of the national and the Los Angeles Chapter of the National Association for Business Economics (NABE) since 2008.

### Somjita Mitra, Ph.D.

Economist

Somjita Mitra joined the Economic and Policy Analysis Group as an Economist in June 2013. She is involved in planning, designing and conducting research and analysis for consulting clients and local businesses and governments, as well as for LAEDC's internal departments. Her focus is in regional analysis, economic impact studies and the industrial and occupational structure of local economies.

Before joining the LAEDC, Dr. Mitra was an Economist for a local economic research and litigation consulting company evaluating economic damages, estimating lost profits, identifying key economic issues and developing necessary analytical and empirical frameworks. Prior to this, Dr. Mitra was a Project Director for a consumer research firm in Los Angeles where she managed projects that identified and analyzed key market issues for small firms as well as multinational corporations.

Dr. Mitra received her Bachelor of Arts in Economics and Political Science from the University of California, Los Angeles and her Master of Arts in Politics, Economics and Business as well as her Ph.D. in Economics from Claremont Graduate University. Dr. Mitra enjoys volunteering in the local community and is actively involved in both women's welfare and animal rescue organizations.

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