

INDUSTRY

and

LABOR MARKET
INTELLIGENCE



for

THE CITY OF LOS ANGELES

AUGUST 2013

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This research was commissioned by the City of Los Angeles Workforce Investment Board and the City of Los Angeles Economic and Workforce Development Department.

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.

The report is provided solely for informational purposes and is not to be construed as providing advice, recommendations, endorsements, representations or warranties of any kind whatsoever.

Executive Summary

Workforce Investment Boards (WIBs) are components of a federally-funded system designed to connect job seekers with employer businesses in local communities, defined as service delivery areas (SDAs), in order to improve the prosperity of both residents and industry in those communities.

The nation's second largest WIB, the City of Los Angeles Workforce Investment Board is committed to putting displaced workers and job seekers in jobs with sustainable wages, and working to ensure the City's business community has an educated and skilled workforce for the future. Through a network of 17 WorkSource Centers, two WorkSource portals, 13 YouthSource Centers and various training partners, the City's workforce development system annually serves 175,000 jobseekers, 5,000 youth and 1,400 employers and businesses. The City of Los Angeles WIB has been a leader in implementing sector-focused training programs and undertaking various initiatives including high school drop-out recovery efforts, serving foster youth and persons with disabilities.

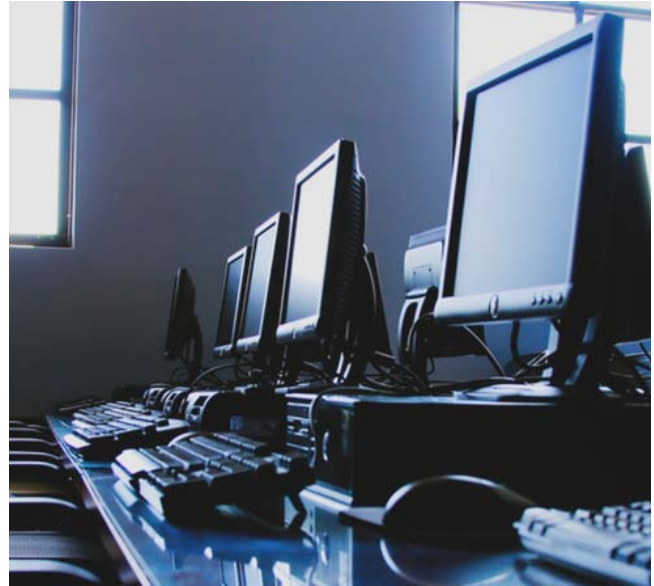
In order to develop an informed strategy for the focus and delivery of its services, the City of Los Angeles County WIB commissioned the Economic and Policy Analysis Group (EPAG) of the Los Angeles Economic Development Corporation (LAEDC) to gather labor market and industry intelligence in support of their strategic planning efforts.

This study examines the demographic and economic characteristics of the City of Los Angeles, and is presented in three parts:

Demographic Overview

Social and economic characteristics of the residents of the City of Los Angeles 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.

The report provides an exhaustive overview of the capabilities of the local population and workforce, including language proficiency of non-English speaking households, households by income, the number and type



of families living below the poverty level the prior year, educational attainment, etc. Determining how these characteristics impact the population in attaining the education, skills and training needed to obtain employment can be undertaken by those with one-on-one interaction with the resident population, such as workforce development case managers.

Labor Market Analysis

The current economic situation and projected trends of the local area economy, industries and occupations are presented here. Relevant characteristics of the resident population are outlined, as they are the main labor supply for industry in the City of Los Angeles. Conversely, industry information is provided as this represents the demand for labor. Based upon metrics developed by EPAG, target industries are identified in order to determine opportunities for various services.

Occupational Analysis

Demographic and labor market analysis is combined to estimate the occupational makeup of the city. These are combined with the industry forecast to provide occupational projections, and to identify the education and skills required for entry into these occupations.

Full and detailed industry and occupational data is provided in the appendix. ❖

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INTRODUCTION

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1 Introduction

A workforce investment board (WIB) is responsible for the local implementation of the Workforce Investment Act, a federal mandate passed in 1998 that consolidated numerous workforce programs and services into one single entity whose focus is on increasing the quality, mobility and productivity of the regional workforce. There are 49 local workforce investment areas (WIA) in California and each has their own WIB.

A WIB is a regional organization that serves as an intermediary, connecting federal, state and local funding with programs that provide workforce development and economic research on the needs within their region. They manage One-Stop Career Centers, where business, job placement and skill development services are offered.

The Los Angeles City WIB's current programs include those for both youth (ages 16 to 21 years) and adults. Youth services include tutoring, internships, job shadowing, work experience, adult mentoring, and counseling. Adult services include the provision of information on the local labor market, skill level assessment, and assistance with job search and job placement. ❖

1.1 Purpose and Vision

To better guide their programs and services, the Los Angeles City WIB has commissioned the Economic and Policy Analysis Group (EPAG) of the LAEDC to perform a demographic, labor market, industry and occupational analysis of their local WIA.

EPAG conducted a study of the composition of the existing industry and the residential population, the juxtaposition of residential and industrial activity within the region, and to identify target industries for business and workforce development. This analysis will be used to build a comprehensive workforce development strategy for the Los Angeles City WIB and to aid outreach efforts in the implementation of these efforts. ❖

1.2 Geographic Definition

The City of Los Angeles stretches across the southwest portion of Los Angeles County; it has a geographic area of approximately 245,400 acres. Surrounding cities are numerous and include Burbank, Glendale, Pasadena, Alhambra, Vernon, Carson, Long Beach, Torrance, Inglewood, Santa Monica, Calabasas, and many others. The most populous city in the county and in the state, with over 3.8 million residents, the city's amenities include the Los Angeles Port, beaches, Griffith Park, and numerous tourist destinations such as museums, theaters, sports venues and amusement parks. Composed of both dense urban areas such as the central city, to the bedroom communities to the east and in the Valley, the City of Los Angeles has a rich and diverse population with a wide range of skills as well as a varied industry base. The City is home to seven planning areas (Harbor, Central Los Angeles, East Los Angeles, South Los Angeles, West Los Angles, North Valley and South Valley) and fifteen city council districts. ❖

Exhibit 1-1
City of Los Angeles



Sources: ESRI, LAEDC

1.3 Organization of this Report

The goal of this study is to examine the characteristics of the City of Los Angeles, both economic and demographic, to provide a sense of the potential for the city 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 Workforce Investment Board.

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 City of Los Angeles 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

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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 the City of Los Angeles and Los Angeles County is presented in Exhibit 2-1.

Exhibit 2-1

Demographic and Income Characteristics 2012

	LA City	LA County
Population	3,833,473	9,904,341
Median Age	34.2	34.9
Households	1,332,301	3,267,118
Average household size	2.81	3.00
Median household income	\$44,116	\$51,329
Per capita income	\$24,516	\$24,599
HH below poverty level (2011)	18.4%	14.6%
Median home value	\$350,617	\$336,821

Source: ESRI; 2011 ACS 1-year estimates



The population of the City of Los Angeles in 2012 was over 3.8 million in more than 1.3 million households, accounting for approximately 39 percent of the population of Los Angeles County. It is the most populous city in Los Angeles County and in the state of California. San Diego is the second most populous city in the state with 1.3 million residents and is only a third of the size of the City of Los Angeles. The median age in the City of Los Angeles is just over 34 years.

Median household income in the City of Los Angeles, estimated to be \$44,116, is approximately 16 percent lower than the median in Los Angeles County. Per capita income in the city, estimated to be \$24,516, is in line with that of the county as it is only 0.3 percent lower than in the county as a whole.

Almost 19 percent of households in the City of Los Angeles lived under the poverty level in 2011, the most recent year that this data is available. This was much higher than in the county, where 14.6 percent of households lived below the poverty level.

Median home values in the City of Los Angeles exceed the county median by just over four percent.

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

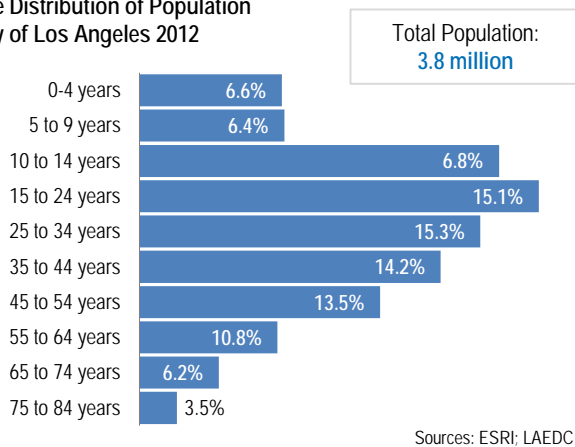
2.1 Current Population

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 small 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 the population in the City of Los Angeles is displayed in Exhibit 2-2.

Exhibit 2-2
Age Distribution of Population
City of Los Angeles 2012



Just over 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 10.9 percent of the population, lower than 11.3 percent in the county.

The population of the City of Los Angeles is projected to grow by 2.0 percent to 3.9 million residents by 2017, a



nominal increase of nearly 75,794 people. The population is expected to age slightly, as the share of residents aged 65 years and older increases to 12.2 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 population of Los Angeles County is projected to grow by 1.7 percent by 2017, a nominal increase of 166,400 people. The population growth of the city is responsible for 46 percent of that of the county.

The human sex ratio is the ratio of males to females in a population. In the City of Los Angeles in 2012, there were 1,004 females to every 1,000 males, significantly higher than in Los Angeles County where there were 962 females to every 1,000 males. ❖

Exhibit 2-3
Population by Sex
City of Los Angeles 2012

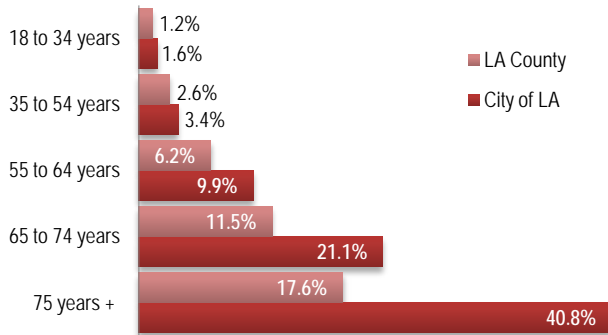


2.2 Veteran Population

Demographic characteristics for veterans differ by sex and by age. For example, female veterans tend to be younger, while male veterans tend to be older.

Exhibit 2-4 shows the veteran population ages 18 years and older as a share of the population of the same age in the City of Los Angeles and in Los Angeles County in 2011, the most recent year that this data is available.

Exhibit 2-4
Veteran Population by Age Group 2011
 As a percentage of total cohort population



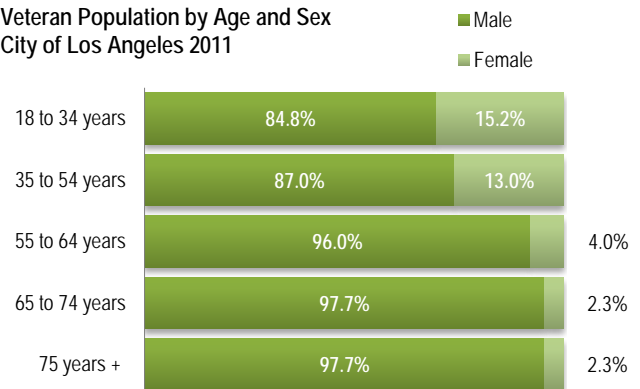
Source: 2011 ACS 1-year Estimates

There are 103,500 veterans living in the City of Los Angeles, 32 percent of the 328,000 veterans living in Los Angeles County. Overall, the share of the population who are veterans has been declining in younger age groups. Of the population aged 75 years and older in the city, 40.8 percent are veterans, compared to 17.6 percent in the county overall, whereas of the population aged 18 to 34 years, only 1.6 percent in the city are veterans and 1.2 percent in the county overall. These shares will grow, however, as combat troops return from the Middle East, Afghanistan and other locations.

Exhibit 2-5 shows the male/ female distribution for the veteran population ages 18 years and older by age group in the City of Los Angeles in 2011, the most recent year that this data is available.



Exhibit 2-5
Veteran Population by Age and Sex
 City of Los Angeles 2011



Source: 2011 ACS 1-year Estimates

Of all veterans living in the City of Los Angeles, 94 percent are male, the same share as the county overall. The share of male veterans significantly exceeds those of female veterans across all age groups. However, younger age groups have a larger share of female veterans compared to older age groups as female participation in our armed forces has increased over time. ❖

2.3 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 the City of Los Angeles.

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 being 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.

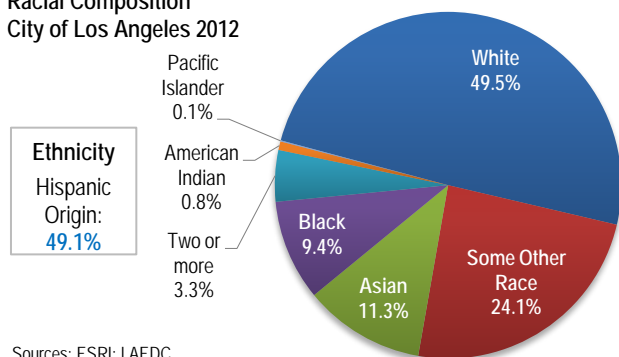
Race and ethnicity in the City of Los Angeles is shown in Exhibit 2-6.



The population in the City of Los Angeles in 2012 is both ethnically and racially diverse. The share of the residents who reported to be of Hispanic origin is 49.1 percent, compared to 48.4 percent at the county level.

In the City of Los Angeles, 49.5 percent of the population is reported as white compared to 50.0 percent in the county. The remaining racial distribution is as follows: 11.3 percent as Asian, 9.4 percent as black, 0.8 percent as American Indian, and 0.1 percent as Pacific Islander (13.8 percent, 8.5 percent, 0.8 percent and 0.3 percent, respectively, in the county). The remaining 27.4 percent of the population is reported as Other Race or Two or More Races, with 24.1 and 3.3 percent, respectively (22.1 percent and 4.6 percent, respectively, in the county).

Exhibit 2-6
Racial Composition
City of Los Angeles 2012

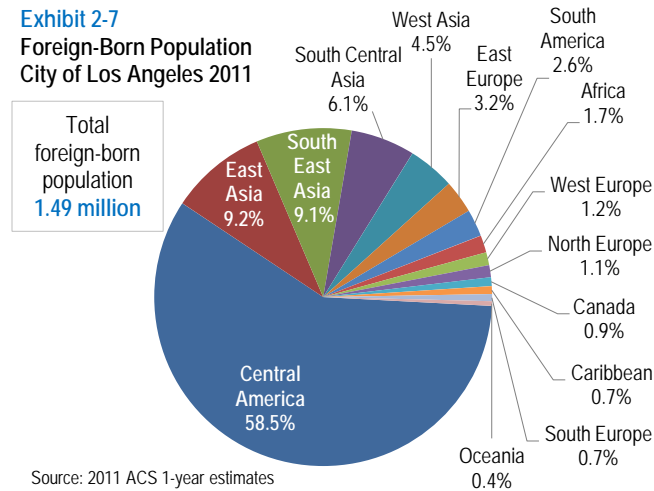


Sources: ESRI; LAEDC

Foreign Born Population

Los Angeles County is home to nearly 3.5 million immigrants from around the world, and hosts the largest communities of expatriates of several nations. The City of Los Angeles represents 43 percent of the total foreign-born population in the county with 1.49 million immigrants.

Exhibit 2-7 shows the distribution of the foreign-born population in the City of Los Angeles by origin of birth in 2011, the most recent year this data is available.

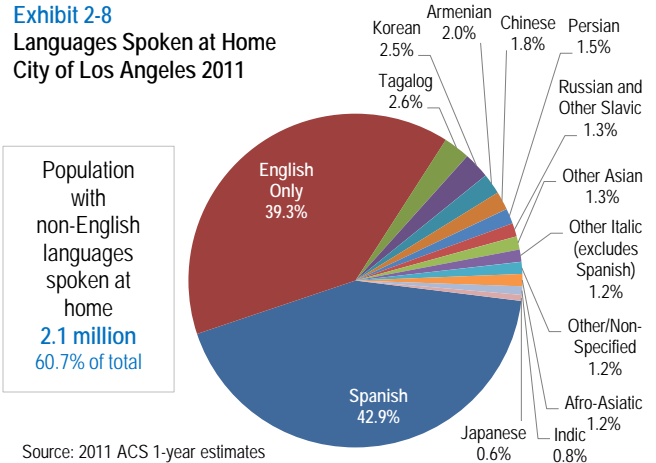


More than half of the foreign-born population originates from Central America, which includes the countries of Mexico, El Salvador, Guatemala, Honduras, Nicaragua, Belize, Costa Rica, Panama, and the Dominican Republic. Just over 18 percent of the foreign-born population comes from eastern and southeastern Asia (including the countries of China, Korea, Japan, Philippines, Vietnam and Cambodia). The remaining 23 percent of the county’s foreign-born population comes from the rest of the world, including the remaining nations of Asia, Africa, South America, Europe and Canada.

Language Ability

Language ability is an important aspect of employment and economic participation. Languages spoken at home in the City of Los Angeles are presented in Exhibit 2-8. The most recent detailed data available is for 2011.

Exhibit 2-8
Languages Spoken at Home
City of Los Angeles 2011



Over half of the population (or 61 percent) in the City of Los Angeles speaks a language other than English at home, with Spanish being the most common language, spoken by 43 percent of the population. Just 40 percent of residents speak only English at home, compared to 44 percent of county residents..

English-speaking capability is highly-variable among different nationalities. Exhibit 2-9 shows the share of residents who speak English less than well in homes where languages other than English are spoken for both the City of Los Angeles and Los Angeles County.

Exhibit 2-9
Residents Speaking English Less Than Well
2012

Language Spoken at Home	City of Los Angeles	Los Angeles County
Spanish	34.6%	30.8%
Other Indo-European	18.9%	18.3%
Asian and Pacific	27.0%	26.9%
All other non-English	8.2%	10.3%
Total	31.2%	28.6%

Sources: ESRI; LAEDC

Of the residents that speak languages other than English at home, just over 31 percent speak English less than well in the city. In Los Angeles County, 29 percent of residents speak English less than well. This implies that of all City of Los Angeles and Los Angeles County residents, 17 percent and 16 percent, respectively, speak English less than well. ❖

2.4 Households

As shown in Exhibit 2-1 on page 7, there were 1.3 million households in the City of Los Angeles in 2012, with an average household size of 2.8 people per household. By 2017, the city is projected to add almost 30,000 additional households.

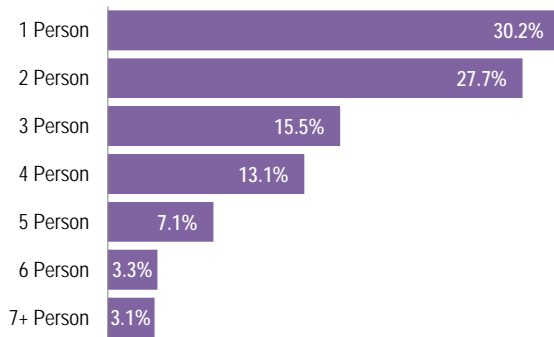
To place the city in context, note that there were 3.3 million households in Los Angeles County in 2012, a number that is projected to increase by 60,300 in 2017.

The size of households is another indicator of the standard of living within 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 2-10 shows households in the City of Los Angeles according to size.



Exhibit 2-10
Households by Size
City of Los Angeles 2011



Source: 2011 ACS 1-year estimates

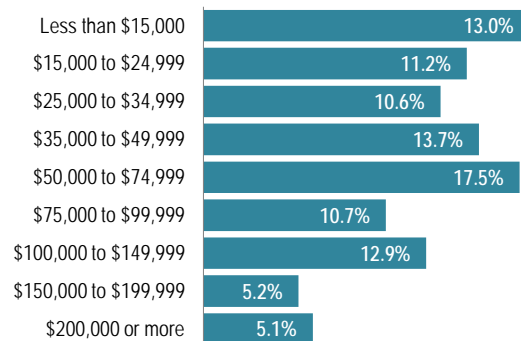
One- and two-person households account for over half (60 percent) of all households in the city. However, the region also has a significant number of larger sized households: 18 percent of all households have five or more people.

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 the City of Los Angeles was estimated to be \$44,116 in 2012, compared to \$51,329 in Los Angeles County as a whole.

The distribution of households by income in the City of Los Angeles in 2012 is shown in Exhibit 2-11.

Exhibit 2-11
Households by Income
City of Los Angeles 2012



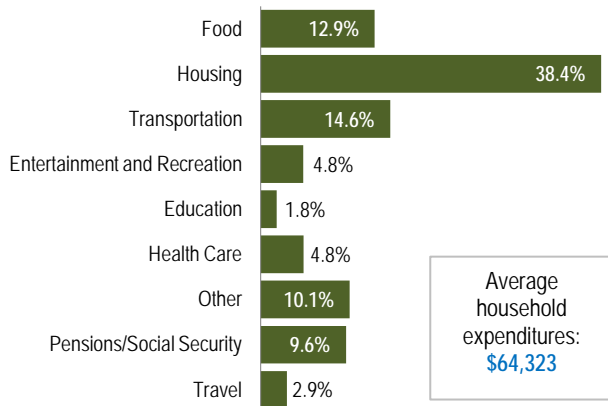
Sources: ESRI; LAEDC

Just over 54 percent of households in the City of Los Angeles earn less than \$50,000 per year, and ten percent earn over \$150,000 per year.

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, household expenditures in the City of Los Angeles averaged \$64,323 (Los Angeles County averaged \$69,700). Exhibit 2-12 displays a breakdown of these expenditures by broad category for the city.

Exhibit 2-12
Household Budget Expenditures
City of Los Angeles 2012



Sources: ESRI; LAEDC

Note that these are *average* household expenditures, and cannot be directly compared to *median* household incomes above.

Approximately 40 percent of household expenditures on average were allocated to housing, with another 14.6 percent paid towards transportation and 12.9 percent for food. The category “Other” includes personal care products, insurance, apparel and other services not individually listed.

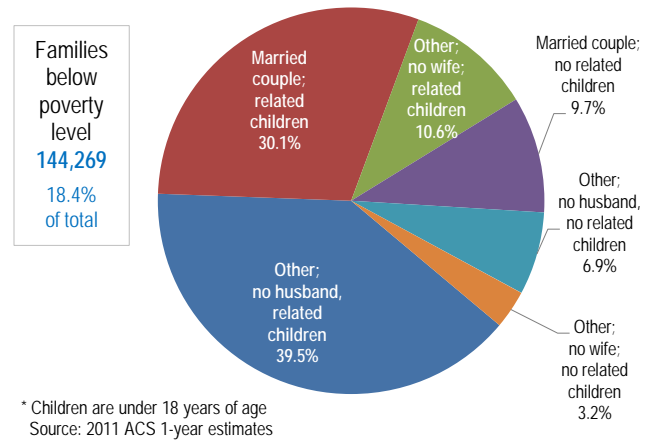
Families and Poverty

Poverty is a relative measure that takes into account the number of people in a family unit and the total income that that unit earns. A family unit consists of two or more people living in the same housing unit that are related by birth, marriage or adoption. This is distinct from households in that households include all persons living in a housing unit regardless of relatedness.

Of the 784,300 families in the City of Los Angeles in 2011, almost 144,300, or just over 18 percent of all families, had their incomes fall below the poverty level in the 12 months prior. This compares to 15 percent of the 2.14 million families in Los Angeles County who have had their incomes fall below the poverty level over the same period.

Exhibit 2-13 shows the breakdown of families whose income has fallen below the poverty level in the City of Los Angeles by type of family.

Exhibit 2-13
City of Los Angeles Families and Poverty 2011
Income in the past 12 months below poverty level



Of all families living below the poverty level in the city, 40 percent are headed by single mothers with children under the age of 18 years. Families headed by a married couple account for 40 percent of all families living under the poverty level, the majority of whom have children under the age of 18 years. Single father families with related children under the age of 18 years account for almost 11 percent of all families whose income has fallen below poverty level in the previous year. ❖

2.5 Land Use

Land is zoned for many uses reflecting the priorities of the municipal legislative body. A city which is focused on providing land primarily 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.

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.

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.

Residential land can be zoned for single family residences or for higher-density multi-family uses. Other residential zoning includes mobile homes and trailer parks, mixed residential and rural residential.

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.

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, places of worship, 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.

Exhibit 2-14 shows the distribution of zoned land use in the City of Los Angeles

Exhibit 2-14

Land Use by Type in the City of Los Angeles

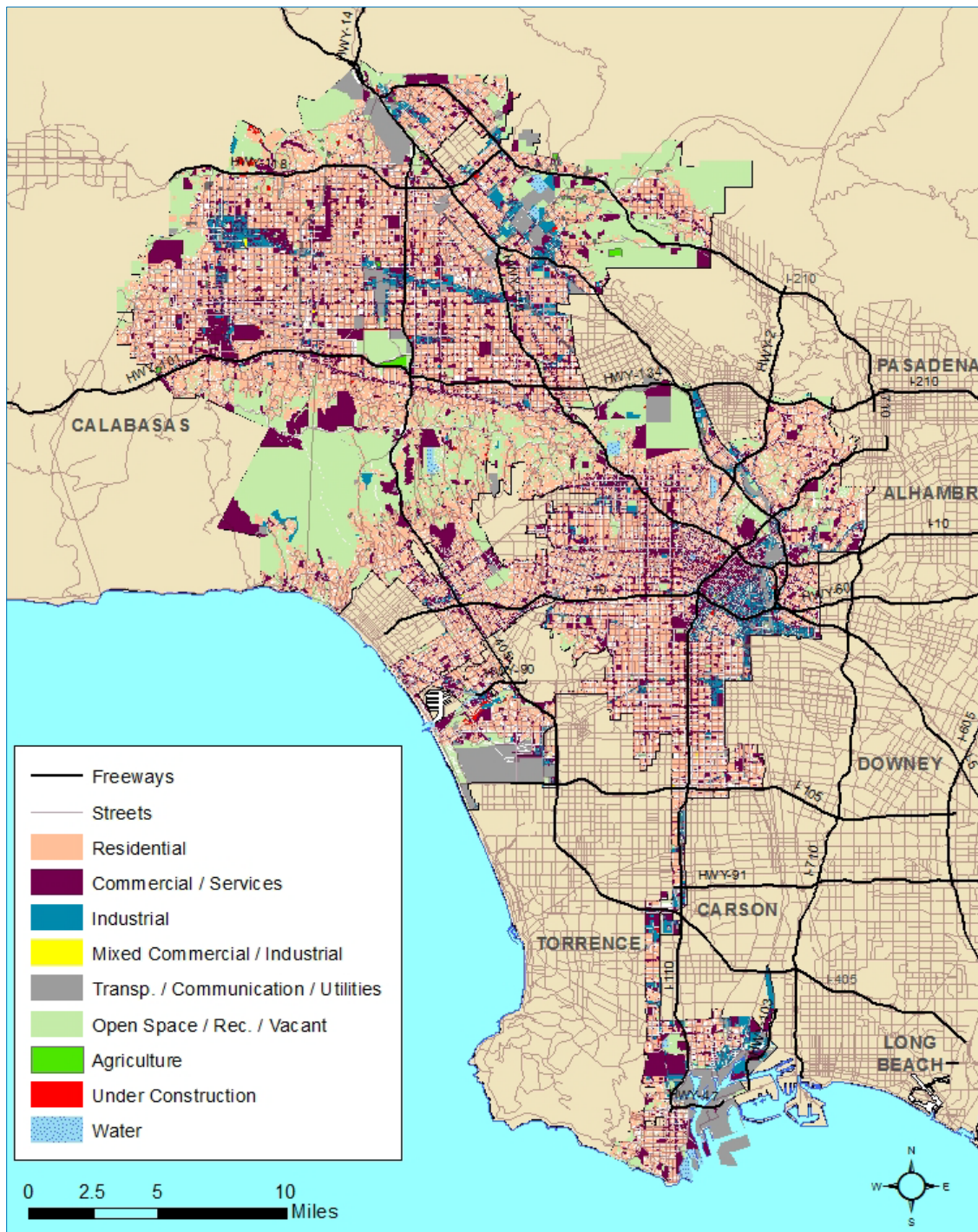
	Acreage (000s)	% of Total
Residential	112.8	46.0%
Commercial	43.0	17.5%
Industrial	12.2	5.0%
Transportation, Communication, Utilities	16.7	6.8%
Open Space and Recreation	10.7	2.1%
Agriculture	1.2	3.1%
Other Land Uses	1.0	0.4%
Vacant	44.1	18.0%
Water	1.4	0.6%
Total Zoned Land Area	243.2	99.1%
Total Land Area	245.4	100.0%

Sources: SCAG; ESRI; LAEDC

The City of Los Angeles has 245,400 acres of land area. Approximately 46 percent of the land is zoned for residential purposes, of which 77 percent is zoned for single family residential use. More than 22 percent of the land is zoned for commercial and industrial uses, making the ratio of residential to commercial/ industrial land approximately 2:1.

Spatial representations of each city council district and planning area are provided in the appendix. ❖

Exhibit 2-15
Land Use in the City of Los Angeles



Sources: SCAG; ESRI; LAEDC

2.6 Housing

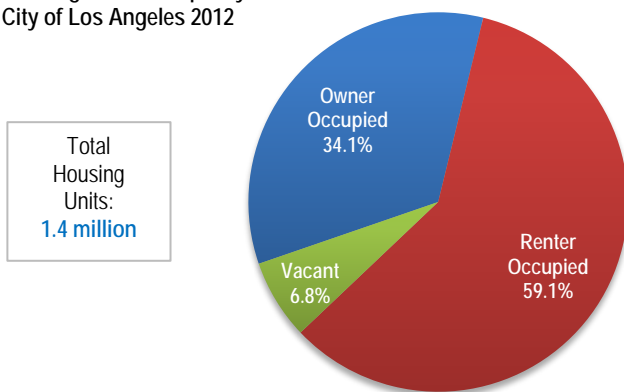
Housing represents the largest component of a household’s budget, and, if owned, is usually the family’s most valuable asset. Beyond housing’s impact on individual balance sheets, however, the characteristics of a community’s housing can be revealing.

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 is lower turnover 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 3.4 million housing units in Los Angeles County; 1.4 million of these housing units are in the City of Los Angeles. The occupancy status and tenure of all housing units in the city are shown in Exhibit 2-16.

Exhibit 2-16
Housing Units Occupancy and Tenure
City of Los Angeles 2012



Sources: ESRI; LAEDC



Just less than 60 percent of the housing stock in the city is rental property. Vacant units account for approximately seven percent of all housing units, and the remaining 34 percent is owner-occupied.

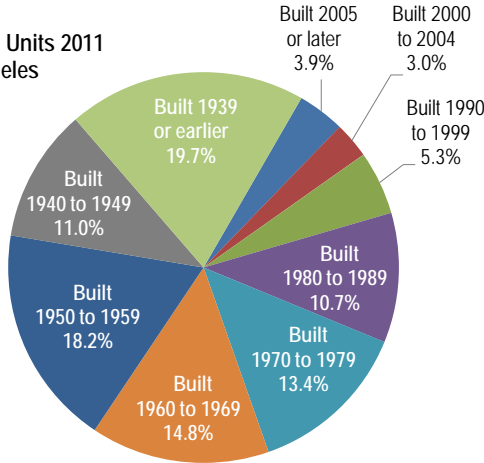
Median home values are used to compare the price of real estate across different areas and over periods of time. The median is deemed a reliable estimate as it is not affected by the presence of extremely high or low valued transactions, and is therefore used to compare real estate prices across different areas. The median home value in the City of Los Angeles was \$350,617 in 2012, which was higher than the countywide median of \$336,821.

Age of Housing Stock

The age of the housing stock in an area can give insight to the quality of housing. Older units require more care and may still contain building materials used in the past that are now known to be a hazard, such as lead-based paint and asbestos. Older housing in poor condition is often inhabited by lower income residents, who can little afford the needed upkeep.

Exhibit 2-17 shows the age distribution of the housing stock in the City of Los Angeles in 2011, the most recent year that this data is available.

Exhibit 2-17
Age of Housing Units 2011
City of Los Angeles



Source: 2011 ACS 1-year estimates

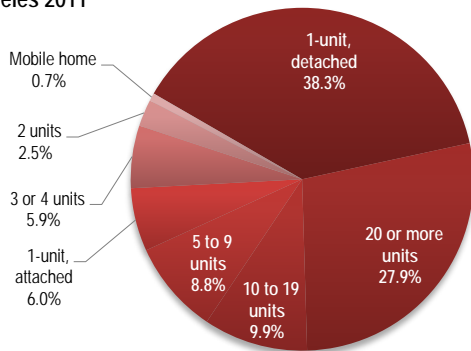
The City of Los Angeles is an old city, and as such, almost half of the housing stock was built prior to 1960, with 20 percent of housing units in the city built 1939 or earlier and almost a third (30 percent) of total housing stock built from 1940 to 1960. Housing stock built from 1960 up to 1999 represents 44 percent of the total. Only seven percent of the total housing stock in the City of Los Angeles has been built since the year 2000.

Housing Units in Structure

The number of units in a structure provides insight into the composition of the housing stock, identifying single family homes, multifamily homes, mobile homes and other units that provide shelter to the resident population.

Exhibit 2-18 shows the share of the housing stock in the city by the number of units in the structure in 2011, the most recent year this data is available.

Exhibit 2-18
Housing Units in Structure
City of Los Angeles 2011



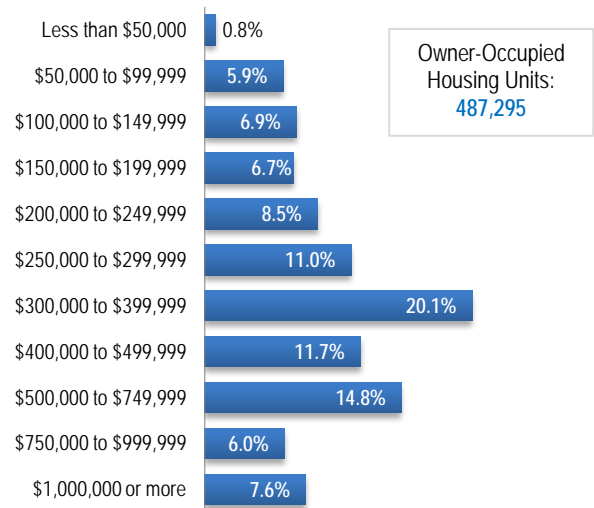
Source: 2011 ACS 1-year estimates

Just fewer than 40 percent of all housing units in the City of Los Angeles are single-family homes, and almost 30 percent of the housing inventory is in large multi-family structures with 20 units or more.

Owner-Occupied Units

As shown in Exhibit 2-16, 34 percent of the housing stock is owner-occupied. The value of these homes varies from less than \$50,000 to millions of dollars. Exhibit 2-19 displays the value distribution of owner-occupied housing units in the City of Los Angeles in 2012.

Exhibit 2-19
Owner-Occupied Housing Units by Value
City of Los Angeles 2012



Sources: ESRI; LAEDC

The average value of housing in the City of Los Angeles is \$437,035 compared to \$409,163 in Los Angeles County as a whole. With half of housing stock in the City of Los Angeles valued less than \$400,000, this implies that some housing units are at extremely high values.

More than half of the owner-occupied housing stock, or 58 percent, falls within the price range of \$250,000 to \$749,000, with an additional 14 percent valued at \$750,000 and above. Housing units valued below \$250,000 accounts for 29 percent of total housing stock.

2.7 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 2-20 shows the means of transportation to work by workers ages 16 years and over who live in the City of Los Angeles.

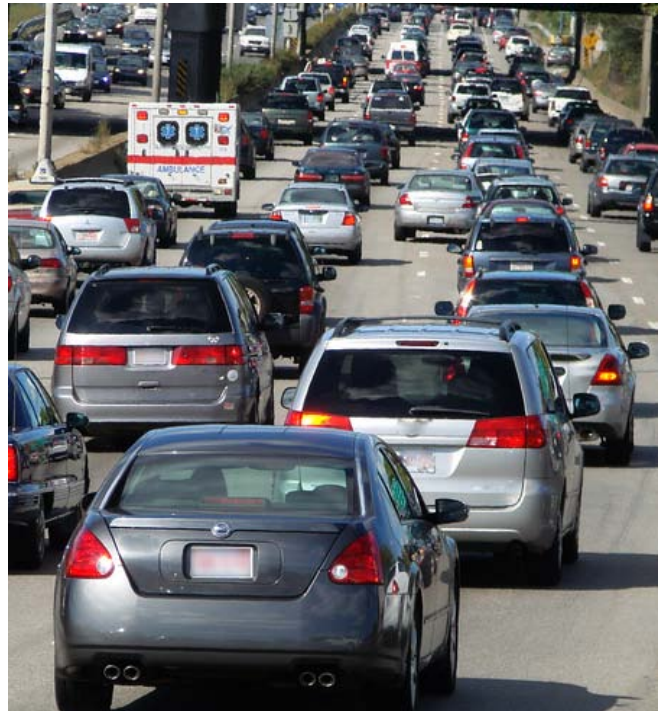


Exhibit 2-20

Workers means of transportation to work
(Workers 16+ years)
City of Los Angeles 2011

Drove alone	66.9%
Carpool	9.8%
Public transportation (excludes taxis)	11.4%
<i>Bus or trolley bus</i>	10.7%
<i>Subway or elevated</i>	0.6%
<i>Railroad</i>	0.1%
<i>Streetcar or trolley</i>	0.1%
<i>Ferry boat</i>	0.0%
Taxicab / Motorcycle / Other	1.3%
Bicycle	1.0%
Walked	3.8%
Worked at home	5.7%
Total	100.0%

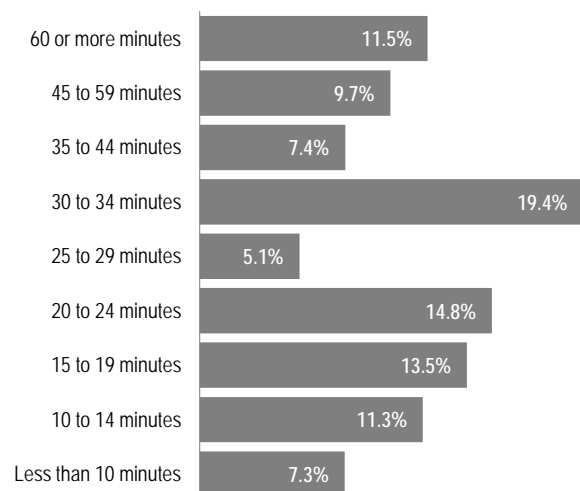
Source: 2011 ACS 1-year estimates

The most popular method of transportation to work was by car, accounting for approximately 67 percent of working residents. Most of these drove alone, with only 10 percent overall carpooling. Public transportation was used by 11 percent of working residents of the city, 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 2-21 displays the travel time to work in minutes for City of Los Angeles residents (excluding those who work from home).

Exhibit 2-21

Travel Time to Work (in minutes)
City of Los Angeles 2011



Source: 2011 ACS 1-year estimates

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 19 percent of working residents. These workers are more likely to be employed within the city. The twelve percent of workers with travel times of 60 minutes or longer are likely to work quite a distance from home.

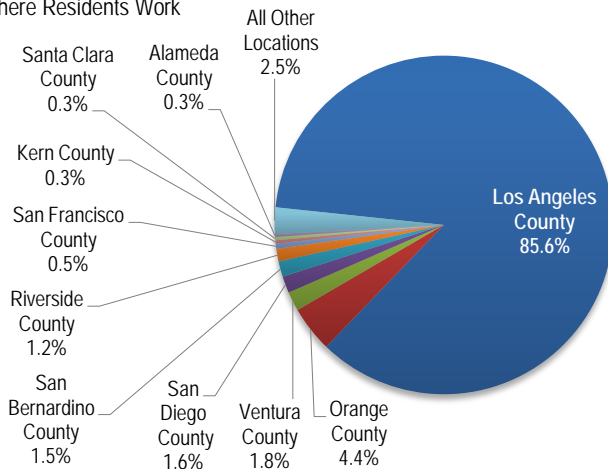
The working residents of the county find jobs across the region. The geographic dispersion of working residents to their employment is called the *commute shed*. Exhibit 2-22 shows the commute shed for the working residents of the City of Los Angeles by county.

Approximately 86 percent of working residents are employed in Los Angeles County, with others working in Orange County (4.4 percent), Ventura County (1.8 percent), San Diego County (1.6 percent), San Bernardino County (1.5 percent) and Riverside and Kern counties and beyond.

Just over half of working residents are employed in the City of Los Angeles, while the remaining residents are employed in surrounding cities, including Burbank, Santa Monica, Glendale, Beverly Hills and Culver City, among many other cities.

The commute shed reveals the *in-area labor force efficiency*. This is a measure of how efficient the community is in providing jobs for its working residents. In this case, the city provides employment for 51 percent of its working residents. ❖

Exhibit 2-22
Commute Shed by County
 Where Residents Work



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

2.8 Income

For many, earnings from employment represents 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-job-related 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.

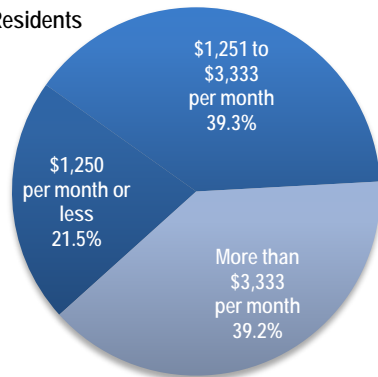
Exhibit 2-23 shows the job-related earnings for working residents in City of Los Angeles WIA. Note that these are earnings from jobs regardless of where the jobs are located.



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.

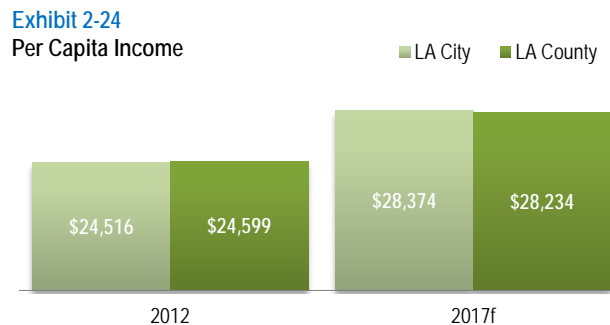
Per capita income in the City of Los Angeles and Los Angeles County in 2012 are shown in Exhibit 2-24, along with a forecast for 2017.

Exhibit 2-23
City of Los Angeles WIA Residents
Job Earnings 2010



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

Almost 40 percent of working residents in the WIA earn more than \$3,333 per month (\$40,000 per year). Residents who earned less than \$1,250 per month (\$15,000 per year) represented almost 22 percent of the total.



Sources: ESRI; LAEDC

Per capita income in the City of Los Angeles is estimated at \$24,516 in 2012, compared to \$24,599 in Los Angeles County as a whole. The projected change from 2012 to 2017 in the city is expected be 15.7 percent and 14.8 percent in the county overall, raising per capita income in the City of Los Angeles and Los Angeles County to \$28,374 and \$28,234, respectively, in 2017 (in 2012 dollars).

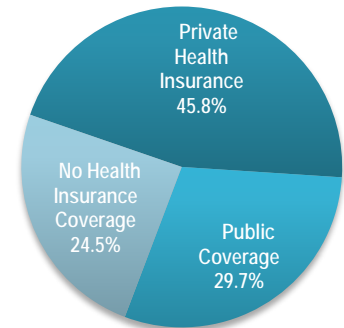
Health Insurance Coverage

Health insurance allows people to obtain more timely medical care and access to medical care at a higher level. Having medical coverage reduces out-of-pocket expenses and allows for preventative care, leading to improved health outcomes. Not having medical coverage means facing undiscounted costs for medical services when they are required.

Exhibit 2-25 shows the health insurance coverage of the civilian noninstitutionalized population in the City of Los Angeles in 2011, the most recent year this data is available.

Three quarters of the civilian noninstitutionalized population in the City of Los Angeles have health insurance coverage of some kind: 46 percent have private coverage and 30 percent have public coverage, compared to 28 percent in Los Angeles County as a whole. The remaining 25 percent of the population in the city remains uninsured, versus 21 percent of the population countywide. ❖

Exhibit 2-25
Health Insurance Coverage
City of Los Angeles 2011



Sources: 2011 ACS 1-year estimates; LAEDC

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LABOR MARKET ANALYSIS

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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.

Since 1970, the population in Los Angeles County has increased by nearly 3 million residents, an increase of 141 percent and an average annual growth rate of 2.1 percent per year. In only four of the last 43 years has the population declined from one year to the next. Those years were 1972, 1995, 2006 and 2007.

The population in the City of Los Angeles has increased by nearly 1.1 million residents since 1970, an increase of 167 percent, or an average annual growth rate of 2.3 percent per year. The city’s current annual growth rate is approximately 1.0 percent and 0.7 percent in the county.

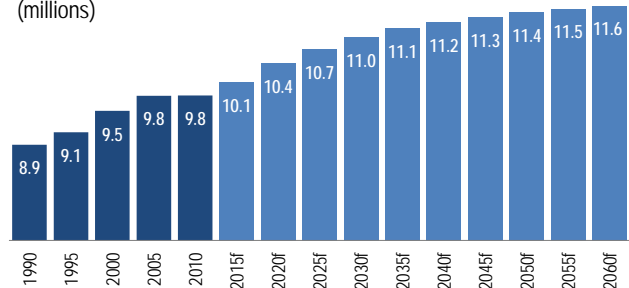
Exhibit 3-1 displays the current and historic population levels in the City of Los Angeles.

From 1990 through 2013, the City of Los Angeles has added 378,300 residents, 34.5 percent of the 1.2 million additional residents added in Los Angeles County over the same period.

As of January 1, 2013, the City of Los Angeles has 3.86 million residents, 38.8 percent of the 9.96 million residents countywide.

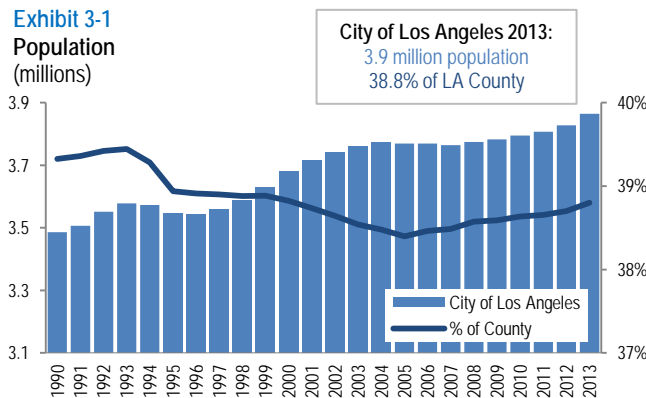
Exhibit 3-2 presents the historic and projected population of Los Angeles County.

Exhibit 3-2
Population in Los Angeles County (millions)



Source: California Department of Finance

Exhibit 3-1
Population (millions)



Source: California Department of Finance

In January 2012, the population was 9.88 million, an increase of 60,000 from January of 2010. The California Department of Finance forecasts that the county’s population will continue to increase, reaching 10.1 million in 2015 and 10.44 million by 2020.

As shown in Exhibit 2-2, the population is expected to age somewhat as the share of residents aged 65 years and older increases to 12.8 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. ❖

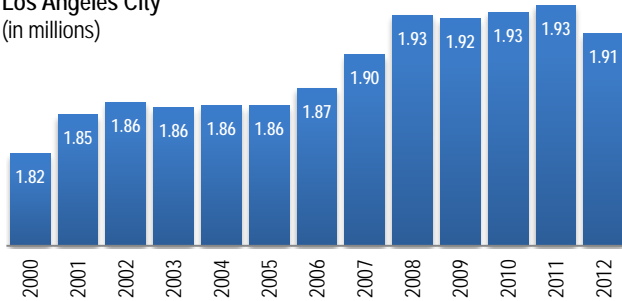
3.2 Labor Force, Participation Rates and Unemployment

Employment and employment growth are based on labor force growth, which is a consequence of both changes in population and in labor force participation rates.

Not everyone in the working-age population will be a labor force participant. The labor force is the population of working-aged individuals (16 years and older) in an area who are currently employed or who are unemployed but still actively seeking work. Individuals not actively looking for work are excluded from the count. These include students, retirees, institutionalized individuals, stay-at-home parents and discouraged workers, who have looked for a job in the past year, but stopped as a result of actual or perceived poor prospects.

The size of the labor force in the City of Los Angeles from 1990 through 2012 is shown in Exhibit 3-3.

Exhibit 3-3
Civilian Labor Force
Los Angeles City
(in millions)



Source: CA EDD

Since 2007, the size of the labor force in the City of Los Angeles has hovered around 1.9 million.

Labor Force Participation Rate

The labor force participation rate is the ratio of the labor force (both those employed and those unemployed) to the total working-age population in a specified area.

The California Employment Development Department (EDD) estimates the labor force in the city to be 1.9



million in 2011. According to the 2011 American Community Survey (ACS) from the U.S. Census Bureau (1-year estimates), the total working-age population in the city was 3.1 million. Using these values, the labor force participation rate for the City of Los Angeles in 2011 was 63.0 percent; countywide it was 63.1 percent.

The labor force participation rate may underestimate an area’s unemployment situation due to the exclusion of discouraged workers. For example, when discouraged workers fall out of the labor force after long-term unemployment, the unemployment rate might fall even though the number of individuals without a job remains unchanged. As such, we can also look at the employment-to-population ratio of an area, sometimes called the employment rate of an area.

Participation rates are influenced by a number of factors, and differ by age, racial and ethnic composition and gender. For example, the participation rates of older workers (aged 55 and over), while lower than average, has been rising since 1980. The Bureau of Labor Statistics (BLS) mentions several factors behind this increase, but the most important one is the sheer number of baby-boomers reaching this age group.

It is also worth noting that the participation rates of younger workers, especially men aged 16-19 years, have been declining since 1990 and should continue to decline as school enrollment rates improve.

The participation rate across the nation has declined to its lowest level in decades. Researchers suggest this is due to an increase in discouraged workers and to younger potential workers extending their school enrollment in the face of poor labor market prospects.

The share of older workers in the labor force is expected to continue increasing as future boomers remain in the labor force rather than retiring.

Because of these reasons, these two groups hold the most potential to increase their participation rates; they may therefore hold the key to increased growth in the labor force in the future.

Given the importance of labor force growth to long-term economic growth, projections of the participation rates of these groups (and in particular that of older workers) will have the largest impact on projections for economic activity in the region.

As the economy continues to improve, those discouraged and marginally-attached workers who previously left the labor force will return. Although this may negatively impact the unemployment rate, over the longer term it will lead to improved economic activity.

Employment-to-Population Ratio

The employment-to-population ratio is an indicator of the ability of a region to support its population. Defined as the ratio of the employed population to the total noninstitutionalized working-age population (which includes discouraged workers), it gives insight into the utilization of labor resources in a specified area. Higher ratios represent higher levels of employment, which will positively affect an area’s per capita GDP.

Using 2011 data, the California EDD estimates employment (from their labor force data series) in the City of Los Angeles to be 1.7 million. According to the 2011 ACS 1-year estimates from the U.S. Census Bureau,

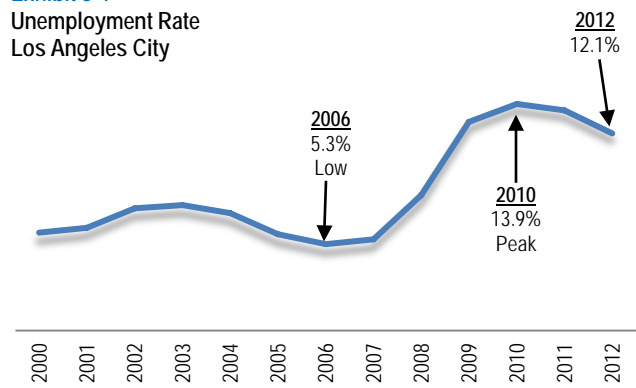
the total working-age population in the City of Los Angeles was 3.1 million. Using these values, the employment-to-population ratio in the City of Los Angeles was 54.5 in 2011, meaning for every 100 people of working age, 55 had jobs. The employment-to-population ratio in Los Angeles County was 62.8 in 2011, meaning for every 100 people of working age, 63 had jobs.

Unemployment

The unemployment rate measures the number of individuals who are unemployed and actively seeking work as a share of the total labor force.

The annual unemployment rate for the City of Los Angeles from 1990 through 2012 is shown in Exhibit 3-4.

Exhibit 3-4
Unemployment Rate
Los Angeles City



Source: CA EDD

From 5.3 percent in 2006, the lowest level in the last twelve years, the unemployment rate in the City of Los Angeles has increased, reaching a peak of 13.9 percent in 2010, declining slightly to its current standing at 12.1 percent. ❖

3.3 Educational Attainment

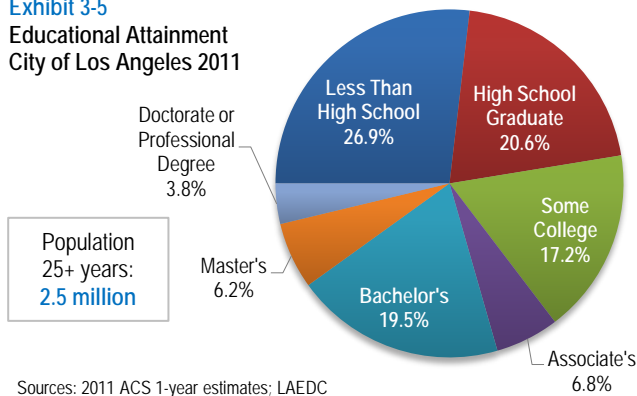
Educational attainment is the highest level of education that an individual has achieved. Knowing the educational attainment of the population within a specific area can provide insight into a variety of factors about the area. Areas with high rates of low educational attainment usually face challenges 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.

The educational attainment levels of the population of the City of Los Angeles ages 25 years and older are shown in Exhibit 3-5.



Exhibit 3-5
Educational Attainment
City of Los Angeles 2011



The population of residents aged 25 years and older in the City of Los Angeles numbered 2.5 million in 2011. More than a quarter (27 percent) of city residents in this age group have not earned a high school diploma (or equivalent) while 21 percent have graduated high school but have no other education. Approximately 29 percent of city 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. ❖

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 the City of Los Angeles by industry is shown in Exhibit 3-6. Note that this is employment of residents no matter where the jobs are located. Although most residents work in Los Angeles County, almost 49 percent work outside of the city.

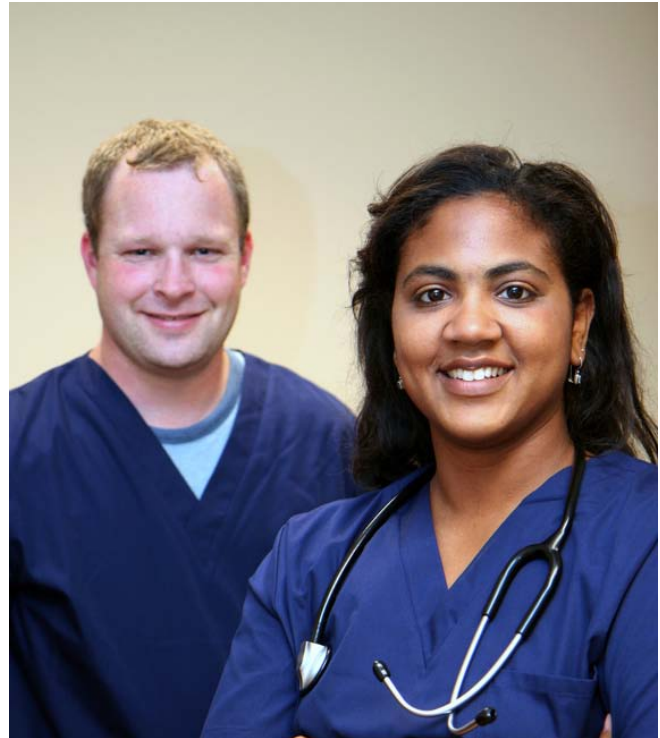


Exhibit 3-6

**Resident Employment by Industry
Population Ages 16 years and over
City of Los Angeles 2011**

NAICS	Industry	Employment	Share of Total
62	Health care and social assistance	211,910	12.0%
44-45	Retail trade	185,580	10.5%
31-33	Manufacturing	160,310	9.1%
72	Accommodation and food services	139,640	7.9%
61	Educational services	138,530	7.9%
54	Professional/ scientific/ technical svcs	135,340	7.7%
81	Other services (excludes gov't)	129,380	7.3%
23	Construction	106,920	6.1%
56	Admin/ support/ waste mgmt svcs	100,210	5.7%
51	Information	99,330	5.6%
52	Finance and insurance	71,980	4.1%
71	Arts, entertainment and recreation	71,220	4.0%
48-49	Transportation and warehousing	65,820	3.7%
42	Wholesale trade	49,760	2.8%
92	Government	43,310	2.5%
53	Real estate and rental and leasing	38,010	2.2%
11	Ag, forestry, fishing and hunting	9,700	0.6%
22	Utilities	5,190	0.3%
55	Management of Co's and enterprises	860	0.0%
21	Mining and extraction	340	0.0%
Total - Industry - 16+ years		1,763,340	100%

Source: 2011 ACS 1-year estimates

resident employment); retail trade (10.5 percent); and manufacturing industries (9.1 percent).

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.

Within each industry, there are a variety of occupations that are employed. For example, workers employed by health care industries can include physicians, nurses, medical technicians, accountants, data processors, food preparers, orderlies, janitors, lawyers, and many more.

Similarly, workers trained are skilled for a particular occupation can be employed by many industries. 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.

The top three employing industries are: health care and social assistance (accounting for 12.0 percent of city

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 the City of Los Angeles are trained and employed in a variety of occupations, as shown in Exhibit 3-7. The groupings shown are major occupational groups; there are many detailed occupations within each major group that will be further examined below.

Exhibit 3-7
Resident Employment by Occupation
Population Ages 16 years and over
City of Los Angeles 2011

SOC	Occupational Group	Employment	Share of Total
43-0000	Office and admin support	219,890	12.5%
41-0000	Sales and related	186,910	10.6%
11-0000	Management	139,660	7.9%
37-0000	Building/grounds cleaning/maintenance	108,460	6.2%
51-0000	Production	114,700	6.5%
35-0000	Food preparation and serving related	109,800	6.2%
39-0000	Personal care and service	90,040	5.1%
53-0000	Transportation / material moving	97,690	5.5%
27-0000	Arts/ /entertainment/sports/media	108,820	6.2%
25-0000	Education, training and library	88,380	5.0%
13-0000	Business and financial operations	84,950	4.8%
47-0000	Construction and extraction	95,920	5.4%
49-0000	Installation, maintenance, repair	44,020	2.5%
29-0000	Healthcare practitioner and techs	72,360	4.1%
31-0000	Healthcare support	37,590	2.1%
21-0000	Community and social services	25,810	1.5%
33-0000	Protective service	29,970	1.7%
15-0000	Computer and mathematical	34,120	1.9%
17-0000	Architecture and engineering	21,500	1.2%
23-0000	Legal	29,910	1.7%
19-0000	Life, physical and social science	16,430	0.9%
45-0000	Farming, fishing and forestry	6,410	0.4%
Total		1,763,340	100%

Source: 2011 ACS 1-year estimates

The occupational distribution of the county’s working residents is diverse, with 52.8 percent employed in white collar occupations such as office and administrative support, sales, management and professional occupations, 17.8 percent in blue collar

occupations such as construction, production and transportation, and 29.4 percent in services.

Note that although 12.0 percent of working residents of the city were employed in healthcare industries (see Exhibit 3-7), only 6.2 percent of working residents were in healthcare occupations. The remainder is in other occupations (such as office, administrative, sales, building maintenance, food preparation and serving, and so on) that are employed in healthcare industries. This is an important point to consider. The healthcare industry is large and growing, and its occupational needs are very diverse—not only limited to healthcare occupations.

The relationship between industries and their occupational needs is not always carefully examined as the nature of industrial production and its technological evolution changes. However, it is clear that there is a wide variety of occupational needs within each industry that can provide opportunities at all skill levels.

The largest occupational group of working residents of the City of Los Angeles is office and administrative support occupations. Workers in these occupations accounted for 12.5 percent of all resident employment in the City of Los Angeles in 2011, or 219,887 jobs, the largest occupational group by far.

Sales and related occupations are held by the second largest proportion of working residents in the city, accounting for 10.6 percent of all jobs.

Other occupations that are large include management occupations (which are employed in all industries), accounting for nearly 140,000 working residents, building and grounds cleaning and maintenance employing 108,460 residents, production occupations, which are involved in the region’s manufacturing industries, employing almost 114,700 workers, and food preparation and serving related employing nearly 109,800 working residents.

Among the larger occupational groups, building and grounds cleaning and maintenance occupations, food preparation and serving, and personal care and service occupations typically need lower levels of education and can be filled by workers who do not hold a high school diploma. ❖

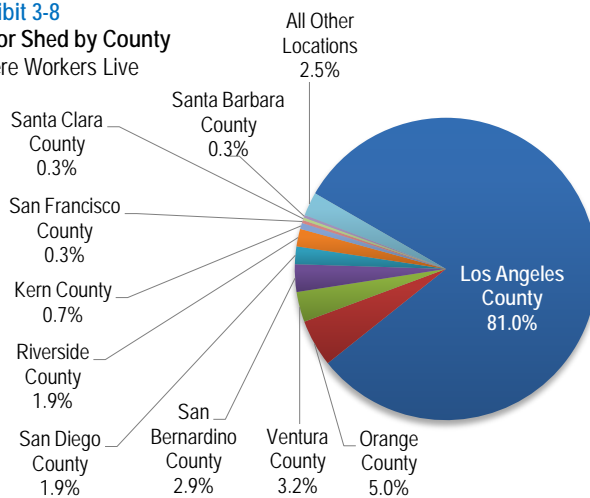
3.6 Commuters

Businesses will hire the best workers they can find at the wages that they are prepared to pay, and workers will seek the highest-paying work they can find within their commute distance. This matching of business needs with the skills and abilities that workers provide leads to a daily migration of workers from homes to workplaces.

Businesses employ people from across Los Angeles County and from neighboring counties as well. The geographic area from which workers commute to be employed at local businesses is called the *labor shed*. Exhibit 3-8 shows the labor shed for the businesses in the City of Los Angeles by county.



Exhibit 3-8
Labor Shed by County
 Where Workers Live



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

Approximately 81 percent of all jobs in the City of Los Angeles are filled by residents of Los Angeles County, five percent by residents of Orange County, 3 percent by residents of Ventura County, 4.8 percent from the Inland

Empire, and the remainder commutes to work in the City of Los Angeles from Kern County, San Diego County and counties in Northern California.

Approximately 45 percent of the jobs in the City of Los Angeles are filled by residents of the city, while the remaining jobs are filled by residents of the surrounding cities, including Glendale, Santa Clarita, Long Beach, Burbank and Santa Monica, among many other cities.

The labor shed reveals 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. In this case, the city provides workers for 45 percent of the jobs required by its businesses. ❖

4 Demand for Labor

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

To investigate the potential for employment opportunities in the county, an understanding of existing employment is needed. In the previous section, the current industry employment of residents of the region 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 economy and its workforce needs.

The industrial distribution of employment in the City of Los Angeles in 2012 is shown in the Exhibit 4-1.

In general, the City of Los Angeles reflects the national pattern of a largely service-oriented economy, which accounts for almost three-quarters of all nonfarm employment, and a government sector accounting for 18 percent of all nonfarm employment (including local, state and federal government employment). Manufacturing employment has been on a long term decline and accounts for less than 10 percent of employment today.

Among the service industries, professional and technical services is the largest, accounting for over 15 percent of employment, followed by educational and health services, leisure and hospitality, and retail trade.

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 4-1
Industrial Profile of the City of Los Angeles
(% of Total Employment)

Total Nonfarm Payroll Employment	100.0%
Good Producing Industries:	9.7%
Natural Resources and Mining	0.1%
Construction	2.5%
Manufacturing – Durable Goods	3.5%
Manufacturing – Nondurable Goods	3.6%
Service Providing Industries	72.3%
Wholesale Trade	4.6%
Retail Trade	9.1%
Transportation, Warehousing, Utilities	3.6%
Information	5.9%
Financial Activities	6.0%
Professional and Business Services	15.1%
Educational and Health Services	13.9%
Leisure and Hospitality	10.7%
Other Services	3.4%
Government	18.0%

Sources: California Employment Development Department; LAEDC

Exhibit 4-2 shows the largest 30 industries in the City of Los Angeles as measured by employment in 2012.

Exhibit 4-2
Top 30 Private Sector Industries by Employment
City of Los Angeles 2012

NAICS	Industry	Employment	% of total
930	Local Government	236,710	17.0%
541	Professional and Technical Services	131,510	9.4%
722	Food Services and Drinking Places	130,030	9.3%
561	Administrative and Support Services	100,820	7.2%
621	Ambulatory Health Care Services	75,910	5.4%
512	Motion Picture and Sound Recording	62,970	4.5%
611	Educational Services	54,270	3.9%
920	State Government	49,570	3.6%
622	Hospitals	44,290	3.2%
424	Merchant Wholesalers, Nondurable Goods	39,070	2.8%
445	Food and Beverage Stores	36,390	2.6%
423	Merchant Wholesalers, Durable Goods	32,450	2.3%
624	Social Assistance	31,100	2.2%
623	Nursing and Residential Care Facilities	30,020	2.2%
522	Credit Intermediation and Related Activities	29,700	2.1%
238	Specialty Trade Contractors	27,600	2.0%
531	Real Estate	25,870	1.9%
452	General Merchandise Stores	23,800	1.7%
812	Personal and Laundry Services	22,960	1.6%
551	Management of Companies and Enterprises	22,590	1.6%
448	Clothing and Clothing Accessories Stores	22,400	1.6%
524	Insurance Carriers and Related Activities	21,150	1.5%
813	Membership Associations and Organizations	20,630	1.5%
721	Accommodation	20,220	1.4%
315	Apparel Manufacturing	19,900	1.4%
910	Federal Government	18,780	1.3%
711	Performing Arts and Spectator Sports	16,520	1.2%
481	Air Transportation	15,640	1.1%
488	Support Activities for Transportation	15,320	1.1%
334	Computer /Electronic Product Mfg	14,440	1.0%

Sources: California Employment Development Department; LAEDC

The largest private sector industry in terms of employment in the City of Los Angeles in 2012 was professional and technical services, providing 131,510 jobs. This industry is large and diverse, and includes a variety of professions such as legal, architectural, engineering, accounting, computer design, advertising, environmental consulting, commercial photography, veterinary services, and more.

The second largest industry was food services and drinking places, providing 130,030 jobs. This industry includes all food services, including full-service restaurants, fast food outlets, caterers, mobile food services, and drinking establishments.

The third largest industry was administrative and support services, which includes office administrative services, facilities support services, business support services, travel agents, security services, and employment services such as temporary employment.

Other significant industries in the city include local and state government, ambulatory health care services, motion pictures and sound recording industries, hospitals and private educational services, together providing more than 520,000 jobs.

A complete list of all industries is provided in Exhibit A-1 in the appendix. ❖

4.2 Local Industry Employment Forecast

Combining the current industrial composition of the City of Los Angeles with the projected industry growth over the next five years, we derive a forecast for industry employment in the city, which is presented in Exhibit 4-3.

Exhibit 4-3
Industry Employment Growth 2012-2017
(Δ Employment)

	Number of Jobs	% of Total
Total Nonfarm Payroll Employment	181,196	100.0%
Good Producing Industries:	15,007	8.3%
Natural Resources and Mining	-89	0.0%
Construction	9,251	5.1%
Manufacturing – Durable Goods	2,337	1.3%
Manufacturing – Nondurable Goods	3,508	1.9%
Service Providing Industries	144,722	79.9%
Wholesale Trade	3,468	1.9%
Retail Trade	8,245	4.6%
Transportation, Warehousing, Utilities	3,182	1.8%
Information	10,730	5.9%
Financial Activities	12,852	7.1%
Professional and Business Services	41,517	22.9%
Educational and Health Services	32,304	17.8%
Leisure and Hospitality	28,576	15.8%
Other Services	3,849	2.1%
Government	21,467	11.8%

Source: Estimates by LAEDC

Overall, the City of Los Angeles is projected to add 181,196 new jobs from 2012 through 2017.



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

Financial activities and the information sector will also be significant sources of job creation during the next five years. Construction will also add jobs as it rebounds from catastrophic losses during the recession.

Wholesale trade will grow quite slowly, as will transportation, warehousing and utilities, which are more likely to add jobs in outlying regions. ❖

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 the City of Los Angeles. For example, it is possible that a national or statewide industry has significant job creation potential but does not have a large presence in the city (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 the City of Los Angeles that is larger (as a percentage of total employment in the city) than its presence in the state or nation would indicate that the City of Los Angeles 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 the city shows the percentage of total employment in an industry compared to the percentage in California (or the nation). For example, if 4 percent of employment in the city is in the motion picture industry, while across the United States only 1 percent is employed in the motion picture industry, then the location quotient for the motion picture industry in Los Angeles is 4. This means that the City of Los Angeles is relatively more specialized in motion pictures than the country 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 competitive industries in the City of Los Angeles by their employment location quotients compared to California and compared to the nation for the third quarter 2012. (Comparable 2012 annual data was not yet available at the state and national level.) This allows us to see not only how the city performs compared to the same industries in the state as a whole, but also to see if there are specific industries which are stronger in the City of Los Angeles compared to the national average, regardless of how they might compare to the state. All industries with a location quotient of greater than 1 (referenced against California) are shown in the exhibit.

The industry with the highest location quotient in the City of Los Angeles in the third quarter of 2012 was motion picture and sound recording industries, with a location quotient of 3.8 vis-à-vis the state, and 12.9 vis-à-vis the nation. This industry is undeniably one in which the region has a competitive advantage.

The industry with the second highest national location quotient is apparel manufacturing, with a location quotient of 3.0 vis-à-vis the state, and 10.4 vis-à-vis the nation. Los Angeles is well-known for its fashion and apparel manufacturing industry.

The list of competitive industries includes manufacturing industries. Although manufacturing employment is on a sectoral decline across the nation,

the City of Los Angeles remains a relatively concentrated center of manufacturing across many product lines, including textiles, leather products, furniture and related products, printing and related support activities, and chemical manufacturing.

Exhibit 5-1
Top Competitive Industries in City of Los Angeles in 2012Q3
(Location Quotients vs. California and US)

NAICS	Industry	CA	US
512	Motion Picture and Sound Recording Industries	3.8	12.9
313	Textile Mills	3.7	2.4
481	Air Transportation	3.1	2.6
315	Apparel Manufacturing	3.0	10.4
515	Broadcasting (except Internet)	2.8	3.8
711	Performing Arts and Spectator Sports	2.2	3.1
521	Monetary Authorities - Central Bank	1.9	1.4
492	Couriers and Messengers	1.8	1.7
712	Museums, Historical Sites, and Similar Institution	1.6	1.7
488	Support Activities for Transportation	1.6	2.0
314	Textile Product Mills	1.6	1.0
316	Leather and Allied Product Manufacturing	1.6	1.7
611	Educational Services	1.5	1.6
532	Rental and Leasing Services	1.5	1.5
523	Securities, Commodities, Contracts	1.5	1.3
483	Water Transportation	1.4	1.0
491	Postal Service	1.4	1.7
930	Local Government	1.3	1.4
485	Transit and Ground Passenger Transportation	1.3	1.2
424	Merchant Wholesalers, Nondurable Goods	1.3	1.5
812	Personal and Laundry Services	1.3	1.3
337	Furniture and Related Product Manufacturing	1.3	1.0
525	Funds, Trusts, and Other Financial Vehicles	1.2	1.3
533	Lessors of Nonfinancial Intangible Assets	1.2	1.3
624	Social Assistance	1.2	0.9
531	Real Estate	1.2	1.4
453	Miscellaneous Store Retailers	1.2	1.1
813	Membership Associations and Organizations	1.2	1.2
323	Printing and Related Support Activities	1.1	0.9
448	Clothing and Clothing Accessories Stores	1.1	1.2
325	Chemical Manufacturing	1.1	0.9
622	Hospitals	1.0	0.7
541	Professional, Scientific, and Technical Services	1.0	1.3
522	Credit Intermediation and Related Activities	1.0	0.9

Sources: California Employment Development Department; LAEDC

Note that although motion picture and sound recording and apparel manufacturing are more highly concentrated in the city than in the state (with location quotients of 3.8 and 3.0, respectively), it is especially higher than the nation (location quotients of 12.9 and 10.4, respectively), implying that growth of these industries in the state overall, as well as their potential decline, will more likely impact Los Angeles than other areas of the state.

A complete list of all industries is provided in Exhibit A-2 in the appendix.

An additional question might be to ask how location quotients have changed over time. If an industry has become more relatively concentrated in the City of Los Angeles than in the state or the nation, this may be indicative of the specialization of the region in that industry. Exhibit 5-2 presents a list of industries that have seen an increase in location quotients vis-à-vis California since from 2001 to 2012.

For all industries listed, the employment concentration relative to the state of California increased. This can be a consequence of the industry remaining stagnant locally but declining elsewhere, or it could be indicative of the industry strengthening locally.

Industries on the list are largely service providing industries in the retail, transportation, information, health care, and leisure and hospitality sectors. Many manufacturing industries are in decline compared to both the state and the nation and are not included, as are most of the professional and business services industries.

Exhibit 5-2

**Top Competitive Industries in City of Los Angeles 2001Q3-2012Q3
(% Change in Location Quotients v. California and US)**

NAICS	Industry	CA	US
910	Federal government	577.1%	581.7%
213	Support activities for mining	133.8%	85.4%
112	Animal Production	78.3%	61.2%
525	Funds/Trusts/Other Financial Vehicles	67.3%	103.8%
212	Mining (except Oil and Gas)	64.3%	30.4%
487	Scenic and Sightseeing Transportation	63.0%	101.5%
236	Construction of Buildings	31.1%	35.8%
324	Petroleum and Coal Products Mfg	30.3%	37.1%
111	Crop Production	29.9%	25.4%
532	Rental and Leasing Services	27.5%	22.3%
453	Retail: Miscellaneous Store Retailers	26.3%	29.2%
512	Motion Picture and Sound Recording	24.6%	43.7%
533	Lessors of Nonfinancial Intangible Assets	20.3%	-0.6%
488	Support Activities for Transportation	19.5%	22.8%
711	Performing Arts and Spectator Sports	18.3%	27.6%
515	Broadcasting (except Internet)	17.8%	37.3%
444	Retail: Building Material and Garden Equip	17.3%	14.2%
443	Retail: Electronics and Appliance Stores	17.2%	1.2%
486	Pipeline Transportation	16.6%	57.7%
447	Retail: Gasoline Stations	12.8%	16.2%
523	Securities/Commodity Contracts/ Other	12.6%	0.8%
238	Specialty Trade Contractors	12.0%	4.3%
321	Wood Product Manufacturing	10.1%	-11.1%
237	Heavy and Civil Engineering Construction	9.9%	9.0%
721	Accommodation	9.5%	16.9%
446	Retail: Health and Personal Care Stores	8.5%	6.3%
221	Utilities	8.1%	33.7%
811	Repair and Maintenance	7.7%	3.0%
920	State Government	7.3%	13.6%
492	Couriers and Messengers	6.8%	-5.2%
722	Food Services and Drinking Places	6.5%	11.4%
517	Telecommunications	5.1%	-1.1%
561	Administrative and Support Services	4.8%	2.4%
448	Retail: Clothing and Clothing Accessories	4.1%	12.8%
624	Social Assistance	4.1%	-2.5%
531	Real Estate	3.7%	7.5%
312	Beverage and Tobacco Product Mfg	3.6%	45.0%
541	Professional/Scientific/Technical Services	3.0%	7.0%
424	Merchant Wholesalers, Nondurable Goods	2.3%	20.2%
511	Publishing Industries (except Internet)	2.3%	5.6%
484	Truck Transportation	1.5%	4.7%
442	Retail: Furniture and Home Furnishings	1.5%	8.9%
334	Computer and Electronic Product Mfg	1.2%	8.6%
485	Transit /Ground Passenger Transportation	0.7%	0.7%
522	Credit Intermediation and Related	0.3%	1.6%
445	Food and Beverage Stores	0.1%	13.2%
812	Personal and Laundry Services	0.0%	11.0%
481	Air Transportation	-0.2%	-13.3%

Sources: California Employment Development Department; LAEDC

A complete list of all industries is provided in Exhibit A-3 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 the City of Los Angeles 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 2012-2017
City of Los Angeles

NAICS	Industry	Number of New Jobs	Annual Average Percent Change
561	Administrative and support services	23,740	4.3%
722	Food services and drinking places	22,180	3.2%
93	Local government	17,720	1.5%
541	Professional and technical services	15,690	2.3%
621	Ambulatory health care services	10,560	2.6%
512	Motion pictures and sound recording	9,570	2.9%
611	Educational services	7,080	2.5%
238	Specialty trade contractors	6,580	4.3%
622	Hospitals	6,160	2.6%
624	Social assistance	4,330	2.6%
623	Nursing and residential care facilities	4,180	2.6%
522	Credit intermediation	4,170	2.6%
92	State government	3,760	1.5%
721	Accommodation	3,450	3.2%
524	Insurance carriers	2,970	2.6%
531	Real estate	2,580	1.9%
445	Retail: Food and beverage stores	2,390	1.3%
448	Retail: Clothing and accessories	2,280	1.9%
452	Retail: General merchandise	2,260	1.8%
523	Securities, commodities and contracts	1,850	2.6%
812	Personal and laundry services	1,790	1.5%
424	Wholesale: Nondurable goods	1,770	0.9%
711	Performing arts and spectator sports	1,580	1.8%
551	Management of companies	1,550	1.3%
236	Construction of buildings	1,540	2.7%
813	Religious, grantmaking and civic orgs	1,420	1.3%

Source: Estimates by LAEDC

In the exhibit, industry-level employment has been projected through 2017. This allows a more detailed look at individual industries (such as hospitals, and nursing and residential care facilities) rather than at large sub-sectors (such as health care and social assistance).

The industry with the largest expected new job creation potential is the administrative and support services industry, expected to add 23,740 jobs between 2012 and 2017. This is largely a result of the increase in temporary employment services, which accounts for 40 percent of the industry. Other large segments include security services and janitorial/landscape services.

The industry with the second largest expected employment gains is food services and drinking places, projected to add 22,180 jobs between 2012 and 2017. This is a very large industry that includes restaurants of all service types, including fast food, full service, catering and mobile food service, as well as bars and nightclubs.

Local government is projected to add 17,720 jobs, mostly in educational services, as population growth demands more local services.

Fourth on the list is professional and technical services, another large and diverse industry, with relatively high growth potential.

Combined health care services provided by hospitals, ambulatory health care services and nursing and residential care facilities are together projected to add 21,050 jobs from 2012 to 2017. As noted above, these are expected to be growing industries and will continue to add jobs in the near future.

Also represented in the list, however, are motion pictures and sound recording, specialty trade contractors, educational services and finance and insurance industries.

Taken together, these twenty-five industries are expected to add more than 163,000 new jobs during the period from 2012 to 2017 in the City of Los Angeles, approximately 88 percent of all jobs forecasted to be added.

A complete list of all industries is provided in Exhibit A-4 in the appendix. ❖

5.3 Identifying Target Industries

The metrics described above (the size of the industry, its job creation potential and its relative competitiveness) are used to identify industries as the most promising targets for job retention and expansion activities in the City of Los Angeles. These are presented in Exhibit 5-4 (by NAICS code), and discussed individually below (in no particular order).

Exhibit 5-4
Target Industries

	NAICS
Construction of buildings	236
Heavy and civil engineering construction	237
Specialty trade contractors	238
Manufacturing: Textile mills	313
Manufacturing: Apparel	315
Manufacturing: Leather and allied products	316
Manufacturing: Pharmaceutical and medicine	3254
Manufacturing: Fabricated metal products	332
Manufacturing: Computer and electronic products	334
Manufacturing: Transportation equipment	336
Manufacturing: Medical equipment and supplies	3391
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



Biomed/Biotech

The biomed/biotech industry consists of two industries: pharmaceutical and medicine manufacturing, and medical equipment and supplies manufacturing. (The research component is included in professional and technical services). While its growth rate is expected to be robust, the size of the industry itself implies a relatively small number of openings over the next five years. Nevertheless, this is an attractive industry target given regional strengths in health care services and health sciences educational capabilities both of which interact with and support the biomed/biotech cluster. Furthermore, the industries hire a range of workers with various education and skills. Almost half of the jobs are in occupations that can be filled by entrants with a high school diploma or equivalent

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. 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.

Entertainment Industry

As the region’s signature industry cluster, the entertainment industry continues to generate employment opportunities for a range of occupations. This industry includes not only motion picture and television production, but also sound recording industries, pre- and post-production work, performing arts, spectator sports, independent artists and performers, and art galleries and museums. Ancillary and related industries would include those involved in digital media, such as software publishing, internet publishing, telecommunications, and gaming. These together form a critical mass of creative industries and workers, which becomes a magnet for firms and

businesses engaged in supporting and encouraging these activities. This is evidenced by these industries' high location quotients and recent location quotient growth.

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 and 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. However, there is a wide range of occupations within these industries that can be filled by workers with some college training, some technical training, or on-the-job experience, such as clerical positions, receptionists, draftsmen, legal assistants, bookkeepers, accounting clerks, and so on.

Construction

As credit conditions improve and the housing market recovers, construction industries (including building construction, specialty trade contractors and heavy and civil engineering) are expected to make a robust recovery. Housing starts are showing signs of life after a dismal few years, and will be needed to meet pent-up demand. In addition, many of the existing infrastructure projects currently planned will come on line, employing thousands of workers in highway, transit, infrastructure and other projects. Finally, continuing incentives and mandates related to energy efficiency and greening of existing buildings have the potential to drive employment in retrofitting and energy efficient implementations.

Hospitality and Tourism

One of the region's major industry clusters, hospitality and tourism will continue to provide employment opportunities for a wide range of job entrants and

incumbent workers. Food services 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.

Trade (Logistics, Transportation, Warehousing)

Trade-related employment is the region's largest traded industry cluster, one in which the region has competitive advantage, and one that will continue to dominate our export-oriented economic activity. However, challenges exist to continued employment growth, as noted earlier. The warehousing industry has become increasingly efficient and centralized and requires extremely large parcels of land, which are not available in the City of Los Angeles. Expansion is moving inland to Riverside County and San Bernardino County. Transportation, however, will continue to grow as the ports of San Pedro Bay handle increasing trade volumes and as goods are delivered to inland warehouses. Wholesale activities are included in the trade cluster, and although traditional wholesale activities will grow slowly, transactions conducted online will grow robustly from 2012 to 2017. Many of these jobs can be filled by workers with lower levels of education and little work experience.

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 continue to be promising targets for employment growth in the county based on upon their performance. These include: transportation equipment, computer and electronic products, apparel, leather products, textile mills, and fabricated metal products. Many of these are highly-skilled jobs that are well commensurately highly-compensated, but many include positions that require workers with community college degrees or technical training. 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. ❖



OCCUPATIONAL ANALYSIS

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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 business and financial operations occupations.



The occupational profile of the City of Los Angeles is shown in Exhibit 6-1. This is somewhat different than the occupational distribution of the working residents shown in Exhibit 3-7 since these are the occupations of the jobs that are located in the city.

Exhibit 6-1
Occupational Profile
(% of Employment)

SOC	Occupational Group	
11-0000	Management occupations	5.3%
13-0000	Business and financial operations	5.6%
15-0000	Computer and mathematical science	2.5%
17-0000	Architecture and engineering	2.1%
19-0000	Life, physical and social science	1.0%
21-0000	Community and social services	2.0%
23-0000	Legal occupations	1.3%
25-0000	Education, training and library	2.7%
27-0000	Arts, design, entertainment, sports, media	3.0%
29-0000	Healthcare practitioners and technical	3.8%
31-0000	Healthcare support	1.9%
33-0000	Protective services	4.5%
35-0000	Food preparation and serving	9.4%
37-0000	Building/grounds cleaning and maintenance	3.5%
39-0000	Personal care and service	4.1%
41-0000	Sales and related	10.0%
43-0000	Office and administrative support	18.5%
45-0000	Farming, fishing and forestry	0.2%
47-0000	Construction and extraction	2.6%
49-0000	Installation, maintenance and repair	3.7%
51-0000	Production	5.7%
53-0000	Transportation/material moving	6.7%
Total		100.0%

Sources: BLS: Occupational Employment Statistics Survey, May 2011

The largest occupational group is office and administrative support, accounting for 18.5 percent of all jobs in the region. This is followed by sales occupations, accounting for approximately 10 percent. These two occupational groups represent a variety of detailed occupations that are employed across many industries. The third largest occupational group, food preparation and serving occupations, accounted for 9.4 percent of all jobs. These are more likely to be found in restaurants and other food services establishments.

Healthcare occupations, including both practitioners and support occupations, account for 5.7 percent of jobs in Los Angeles County.

Blue-collar occupations, such as those in construction, production and transportation, account for almost 19 percent of all jobs, a measure of how important these sectors are to the city's economy. ❖

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 2012, the most recent year for which complete employment data is available. These are aggregated across industries.

Projected job openings by major occupational group in the City of Los Angeles are presented in Exhibit 6-2.

Exhibit 6-2

Occupational Growth in the City of Los Angeles 2012-2017 (Δ Employment)

SOC	Occupational Group	New Jobs	Replacement	Total *
11-0000	Management occupations	9,172	9,664	18,836
13-0000	Business and financial	9,395	9,798	19,194
15-0000	Computer and mathematical	4,154	3,603	7,757
17-0000	Architecture and engineering	3,217	4,014	7,230
19-0000	Life, physical, social science	1,597	2,529	4,126
21-0000	Community and social services	3,431	3,782	7,214
23-0000	Legal occupations	2,157	1,871	4,029
25-0000	Education, training and library	5,497	5,255	10,753
27-0000	Arts, entertainment, sports	5,697	6,703	12,400
29-0000	Healthcare practitioners	7,815	6,823	14,638
31-0000	Healthcare support	4,375	2,481	6,856
33-0000	Protective services	7,490	10,199	17,690
35-0000	Food preparation and serving	25,159	29,803	54,962
37-0000	Building/grounds maintenance	9,635	5,478	15,113
39-0000	Personal care and service	7,768	9,834	17,602
41-0000	Sales and related	13,029	26,553	39,582
43-0000	Office and administrative	33,113	33,956	67,069
45-0000	Farming, fishing and forestry	144	601	745
47-0000	Construction and extraction	7,473	4,803	12,276
49-0000	Installation, maint / repair	4,801	7,067	11,867
51-0000	Production	6,919	9,120	16,039
53-0000	Transportation/material moving	9,165	14,476	23,641
Total*		181,205	208,415	385,619

* May not sum due to rounding
Source: Estimates by LAEDC

The largest number of overall openings 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, education and training occupations, and transportation and material moving occupations.

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 presents the top 20 detailed occupations by projected job openings (new jobs and replacement jobs) between 2012 and 2017. These twenty occupations will account for almost 35 percent of all job openings in all occupations.

Exhibit 6-3
Occupational Growth in the City of Los Angeles 2012-2017
Top 20 Detailed Occupations
(Δ Employment)

SOC	Detailed Occupation	New Jobs	Replacement	Total *
35-3031	Waiters and waitresses	5,112	7,797	12,909
41-2011	Cashiers	3,063	8,885	11,949
35-3021	Combined food preparation and serving workers, including fast food	6,103	5,344	11,447
41-2031	Retail salespersons	2,668	7,335	10,003
43-9061	Office clerks, general	5,122	4,317	9,493
43-4051	Customer service representatives	3,664	4,670	8,834
53-7062	Laborers and freight, stock, and material movers, hand	2,734	4,591	7,325
37-2011	Janitors and cleaners, except maids and housekeeping cleaners	4,468	2,652	7,120
35-3022	Counter attendants, cafeteria, food concession, and coffee shop	1,818	4,399	6,217
11-1021	General and operations managers	2,895	2,598	5,493
43-1011	First-line supervisors of office and administrative support workers	2,291	2,294	5,216
33-3051	Police and sheriff's patrol officers	1,734	3,396	5,131
43-6014	Secretaries and administrative assistants, except legal, medical and executive	3,136	1,843	4,979
43-5801	Stock clerks and order fillers	1,592	2,627	4,219
33-9032	Security guards	2,883	1,305	4,189
13-2011	Accountants and auditors	1,991	2,061	4,052
43-4171	Receptionists and information clerks	1,761	2,196	3,957
39-3031	Ushers, lobby attendants and ticket takers	1,272	2,654	3,926
43-3031	Bookkeeping, accounting, and auditing clerks	2,486	1,337	3,823
49-9071	Maintenance and repair workers, general	1,895	1,769	3,664
Total*		58,687	74,702	133,389

* May not sum due to rounding
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; cashiers and retail salespersons, which are in the sales occupational group; and mail clerks and customer service representatives, which are in office and administrative support occupational group.

Other occupations with large numbers of openings expected over the next five years are registered nurses, laborers and freight movers, janitors and cleaners, and counter attendants.

A complete list of all occupations is provided in Exhibit A-8 in the appendix. ❖

6.3 Education and Skills Requirements

Careful examination of the detailed occupations that will provide the most job openings in the next five years as shown in Exhibit 6-3 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 is

shown in Exhibit 6-4. Additionally, the level of on-the-job training required to gain proficiency for each occupation is also shown.

Exhibit 6-4

Median Wage and Entry Level Requirements for Top 20 Detailed Occupations 2012-2017

SOC	Detailed Occupation	Median Annual Wage	Entry Level		OJT
			Educ	Work Exp	
35-3031	Waiters and waitresses	\$ 18,868	8	None	ST
41-2011	Cashiers	20,017	8	None	ST
35-3021	Combined food preparation and serving workers, including fast food	18,953	8	None	ST
41-2031	Retail salespersons	21,849	8	None	ST
43-9061	Office clerks, general	29,692	7	None	ST
43-4051	Customer service reps	35,296	7	None	ST
53-7062	Laborers and freight, stock, and material movers, hand	23,147	8	None	ST
37-2011	Janitors and cleaners, except maids and housekeepers	22,747	8	None	ST
35-3022	Counter attendants, cafeteria, food concession, and coffee shop	19,217	8	None	ST
11-1021	General and operations managers	113,956	4	1-5 years	None
43-1011	First-line supervisors of office and administrative support workers	56,230	7	1-5 years	None
33-3051	Police and sheriff's patrol officers	N/A	7	None	MT
43-6014	Secretaries and administrative assistants, except legal, medical, and executive	36,040	7	None	ST
43-5081	Stock clerks and order fillers	22,677	8	None	ST
33-9032	Security guards	24,286	7	None	ST
13-2011	Accountants and auditors	68,193	3	None	None
43-4171	Receptionists and information clerks	27,400	7	None	ST
39-3031	Ushers, lobby attendants, and ticket takers	20,873	8	None	ST
43-3031	Bookkeeping, accounting, and auditing clerks	38,918	7	None	MT
49-9071	Maintenance and repair workers, general	38,369	7	None	MT

ST=short term; MT=moderate-term; I/R=internship/residency
Source: Estimates by LAEDC

Entry level education requirements are as follows: 3=Bachelor's degree; 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.

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.

A complete list of all occupations is provided in Exhibit A-5 in the appendix.

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

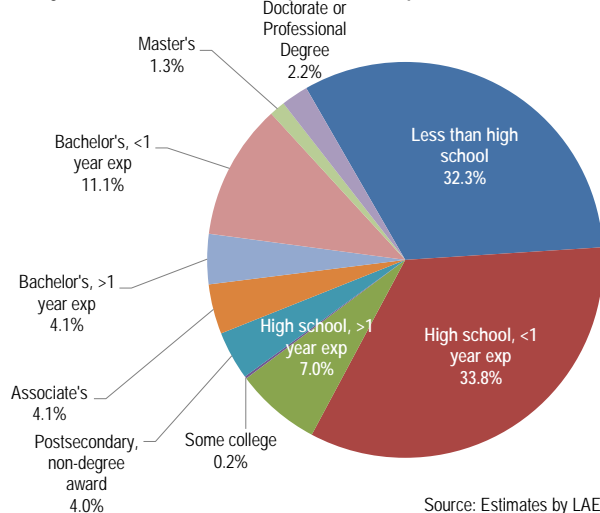
Exhibit 6-5 presents the entry level education and training requirements across all occupational projections for the city.

Almost one-third of the projected openings for the next five years require workers without a high school diploma and no work experience. Another 32 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.

Of the remaining projected openings, 4 percent will be suitable for new graduates with a bachelor's degree, 4 percent for workers with associate's degrees and 4 percent for certificated post-secondary candidates. ❖

Exhibit 6-5

Entry Level Education and Experience Requirements



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)	49
Heavy and Civil Engineering Construction (NAICS 237)	50
Specialty Trade Contractors (NAICS 238)	51
Textile Mills (NAICS 313)	53
Apparel Manufacturing (NAICS 315)	54
Leather and Allied Product Manufacturing (NAICS 316)	55
Fabricated Metal Product Manufacturing (NAICS 332)	56
Computer and Electronic Product Manufacturing (NAICS 334)	58
Transportation Equipment Manufacturing (NAICS 336)	60
Motion Picture and Sound Recording Industries (NAICS 512)	62
Broadcasting, Except Internet (NAICS 515)	63
Other Information Services (NAICS 519)	64
Professional and Technical Services (NAICS 541)	65
Administrative and Support Services (NAICS 561)	67
Waste Management and Remediation Services (NAICS 562)	69
Ambulatory Health Care Services (NAICS 621)	71
Hospitals (NAICS 622)	73
Nursing and Residential Care Facilities (NAICS 623)	74
Accommodation (NAICS 721)	76
Food Services and Drinking Places (NAICS 722)	77

Construction of Buildings (NAICS 236)

Industries within this subsector primarily construct buildings.

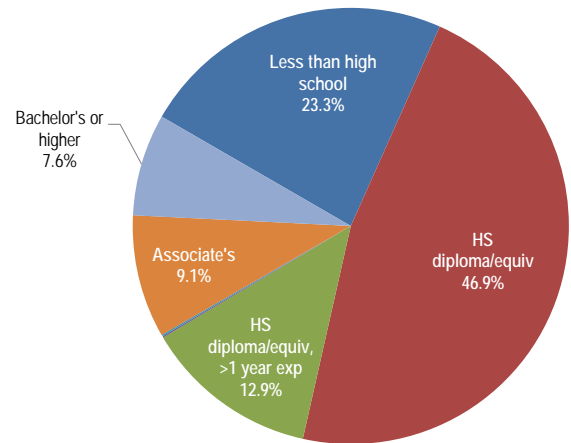
Residential Building Construction (2361)

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

	Occupation as a share of NAICS	LA City Occupation Employment	LA County Median Annual Wage
Construction and Extraction Occupations	62.2%	6,702	
47-2031 Carpenters	23.4%	2,521	\$ 52,267
47-2061 Construction Laborers	15.3%	1,649	\$ 37,396
47-1011 First-Line Supervisors of Construction Trades and Extraction Workers	9.8%	1,056	\$ 72,615
47-3012 Helpers--Carpenters	2.0%	216	\$ 31,618
Other Construction and Extraction Occupations	11.7%	1,261	
Office and Administrative Support Occupations	11.9%	1,282	
43-9061 Office Clerks, General	3.3%	356	\$ 29,692
43-6014 Secretaries and Administrative Assistants, Except Legal, Medical, and Executive	2.7%	291	\$ 36,040
43-3031 Bookkeeping, Accounting, and Auditing Clerks	2.3%	248	\$ 38,918
Other Office and Administrative Support Occupations	3.6%	388	
Management Occupations	10.4%	1,121	
11-9021 Construction Managers	6.2%	668	\$ 103,141
11-1021 General and Operations Managers	2.5%	269	\$ 113,956
Other Management Occupations	1.7%	183	\$ 52,267
All Other Industry Occupations	15.4%	1,659	
Total* Across All Occupations in Industry	100.0%	10,775	

Sources: BLS, CA EDD, estimates by LAEDC

*May not sum due to rounding

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).

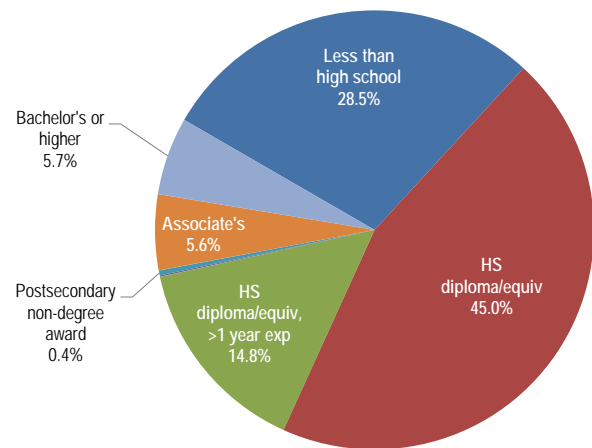
Highway, Street, and Bridge Construction (2373)

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

Occupation	Occupation as a share of NAICS	LA City Occupation Employment	LA County Median Annual Wage
Construction and Extraction Occupations	57.0%	2,326	
47-2061 Construction Laborers	22.2%	906	\$37,396
47-2073 Operating Engineers and Other Construction Equipment Operators	11.8%	482	\$78,266
47-1011 First-Line Supervisors of Construction Trades and Extraction Workers	7.2%	294	\$72,615
47-2031 Carpenters	3.2%	131	\$52,267
47-2151 Pipelayers	2.3%	94	\$45,998
47-2071 Paving, Surfacing, and Tamping Equipment Operators	2.2%	90	\$60,595
47-2051 Cement Masons and Concrete Finishers	1.9%	78	\$46,838
47-2152 Plumbers, Pipefitters, and Steamfitters	1.9%	78	\$55,746
Other Construction and Extraction Occupations	4.2%	171	
Installation, Maintenance, and Repair Occupations	10.6%	433	
49-9051 Electrical Power-Line Installers and Repairers	3.2%	131	\$86,428
49-9052 Telecommunications Line Installers and Repairers	1.9%	78	\$54,041
Other Installation, Maintenance, and Repair Occupations	5.4%	220	
All Other Industry Occupations	32.5%	1,326	
Total* Across All Occupations in Industry	100.0%	4,081	

Sources: BLS, CA EDD, estimates by LAEDC

*May not sum due to rounding

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).

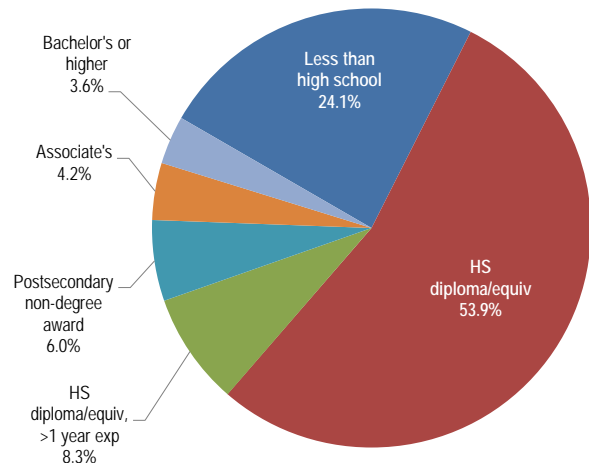
Building Finishing Contractors (2383)

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

SOC	Occupation	Occupation as a share of NAICS	LA City Occupation Employment	LA County Median Annual Wage
Construction and Extraction Occupations		63.9%	17,634	
47-2111	Electricians	10.8%	2,980	\$62,283
47-2061	Construction Laborers	7.4%	2,042	\$37,396
47-2152	Plumbers, Pipefitters, and Steamfitters	7.3%	2,015	\$55,746
47-2031	Carpenters	5.0%	1,380	\$52,267
47-1011	First-Line Supervisors of Construction Trades and Extraction Workers	4.9%	1,352	\$72,615
47-2141	Painters, Construction and Maintenance	3.8%	1,049	\$36,240
47-2051	Cement Masons and Concrete Finishers	2.8%	773	\$46,838
47-2073	Operating Engineers and Other Construction Equipment Operators	2.6%	717	\$78,266
47-2211	Sheet Metal Workers	2.4%	662	\$46,442
47-2081	Drywall and Ceiling Tile Installers	1.9%	524	\$49,210
	Other Construction and Extraction Occupations	12.4%	3,422	
Office and Administrative Support Occupations		10.6%	2,925	
43-9061	Office Clerks, General	3.3%	911	\$29,692
43-6014	Secretaries and Administrative Assistants, Except Legal, Medical, and Executive	2.3%	635	\$36,040
43-3031	Bookkeeping, Accounting, and Auditing Clerks	2.0%	552	\$38,918
	Other Office and Administrative Support Occupations	3.0%	828	
Installation, Maintenance, and Repair Occupations		10.1%	2,787	
49-9021	Heating, Air Conditioning, and Refrigeration Mechanics and Installers	4.8%	1,325	\$54,365
	Other Installation, Maintenance, and Repair Occupations	5.4%	1,490	
All Other Industry Occupations		15.3%	4,222	
Total*	Across All Occupations in Industry	100.0%	27,596	

Sources: BLS, CA EDD, estimates by LAEDC

*May not sum due to rounding

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).

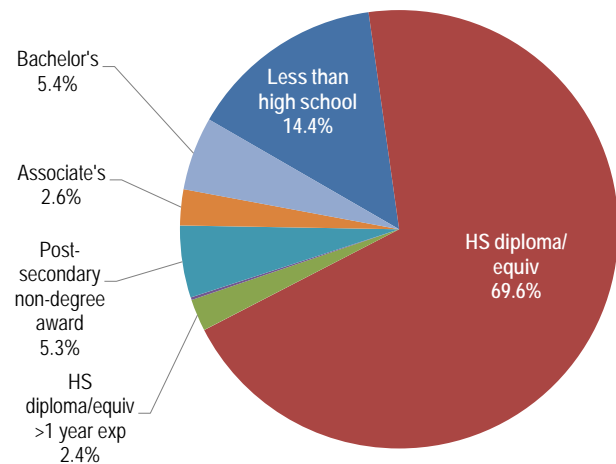
Fabric Mills (3132)

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

	Occupation as a share of NAICS	LA City Occupation Employment	LA County Median Annual Wage
Production Occupations	59.8%	2,216	
51-6064 Textile Winding, Twisting, and Drawing Out Machine Setters, Operators and Tenders	17.2%	637	\$ 19,527
51-6063 Textile Knitting and Weaving Machine Setters, Operators and Tenders	12.3%	456	\$ 19,304
51-9061 Inspectors, Testers, Sorters, Samplers and Weighers	5.4%	200	\$ 34,469
51-1011 First-Line Supervisors of Production and Operating Workers	4.7%	174	\$ 51,218
51-6091 Extruding and Forming Machine Setters/Operators/ Tenders, Synthetic and Glass Fibers	3.1%	115	\$ 30,035
51-9198 Helpers--Production Workers	2.6%	96	\$ 21,162
51-6099 Textile, Apparel, and Furnishings Workers, All Other	2.2%	82	\$ 19,888
Other Production Occupations	12.4%	459	
Office and Administrative Support Occupations	10.1%	374	
43-5071 Shipping, Receiving, and Traffic Clerks	2.1%	78	\$ 28,322
Other Office and Administrative Support Occupations	8.0%	296	
All Other Industry Occupations	30.1%	1,115	
Total* Across All Occupations in the Industry	100.0%	3,705	

Sources: BLS, CA EDD, estimates by LAEDC

*May not sum due to rounding

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).

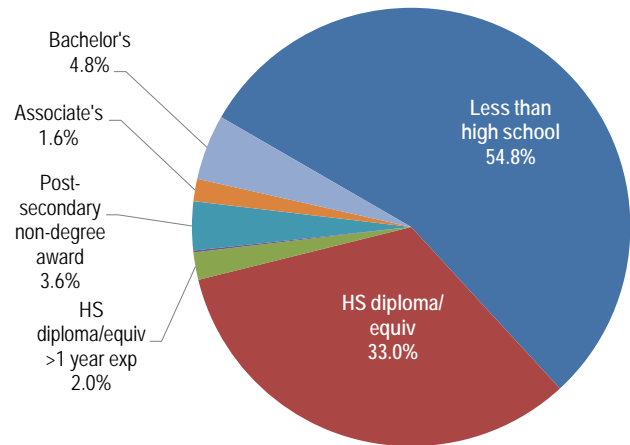
Cut and Sew Apparel Manufacturing (3152)

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

Occupation	Occupation as a share of NAICS	LA City Occupation Employment	LA County Median Annual Wage
Production Occupations	63.6%	12,660	
51-6031 Sewing Machine Operators	39.3%	7,823	\$ 19,274
51-1011 First-Line Supervisors of Production and Operating Workers	3.6%	717	\$ 51,218
51-6062 Textile Cutting Machine Setters, Operators, and Tenders	3.5%	697	\$ 21,182
51-9061 Inspectors, Testers, Sorters, Samplers, and Weighers	3.0%	597	\$ 34,469
51-6092 Fabric and Apparel Patternmakers	2.1%	418	\$ 43,907
51-6021 Pressers, Textile, Garment, and Related Materials	1.9%	378	\$ 20,456
51-6063 Textile Knitting and Weaving Machine Setters, Operators, and Tenders	1.8%	358	\$ 19,304
Other Production Occupations	8.4%	1,672	
Office and Administrative Support Occupations	13.0%	2,588	
43-5071 Shipping, Receiving, and Traffic Clerks	2.7%	537	\$ 28,322
Other Office and Administrative Support Occupations	10.3%	2,050	
All Other Industry Occupations	23.4%	4,658	
Total* Across All Occupations in the Industry	100.0%	19,905	

Sources: BLS, CA EDD, estimates by LAEDC

*May not sum due to rounding

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).

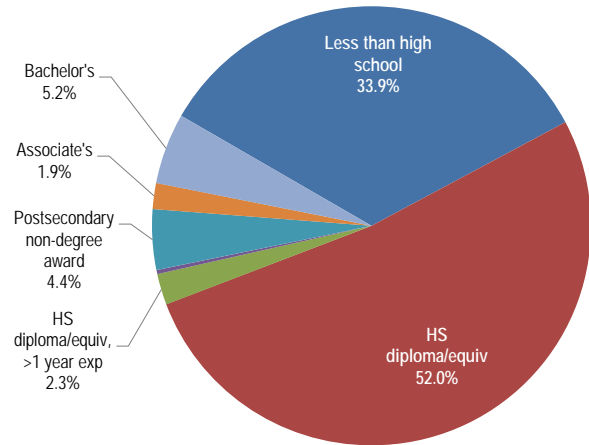
Footwear Manufacturing (3162)

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

Occupation	Occupation as a share of NAICS	LA City Occupation Employment	LA County Median Annual Wage
Production Occupations	53.3%	349	
51-6031 Sewing Machine Operators	17.4%	114	\$19,274
51-6041 Shoe and Leather Workers and Repairers	8.9%	58	\$19,746
51-2092 Team Assemblers	6.5%	43	\$23,507
51-1011 First-Line Supervisors of Production and Operating Workers	3.7%	24	\$51,218
51-9198 Helpers--Production Workers	2.3%	15	\$21,162
51-9399 Production Workers, All Other*	2.0%	13	\$30,887
51-9061 Inspectors, Testers, Sorters, Samplers, and Weighers	2.0%	13	\$34,469
Other Production Occupations	10.5%	69	
Office and Administrative Support Occupations	11.5%	75	
43-5071 Shipping, Receiving, and Traffic Clerks	2.4%	16	\$28,322
Other Office and Administrative Support Occupations	9.1%	60	
All Other Industry Occupations	35.2%	231	
Total* Across All Occupations in the Industry	100.0%	655	

Sources: BLS, CA EDD, estimates by LAEDC

*May not sum due to rounding

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 exchangers; 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 one 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 one industry: coating, engraving, heat treating and allied activities (33281).

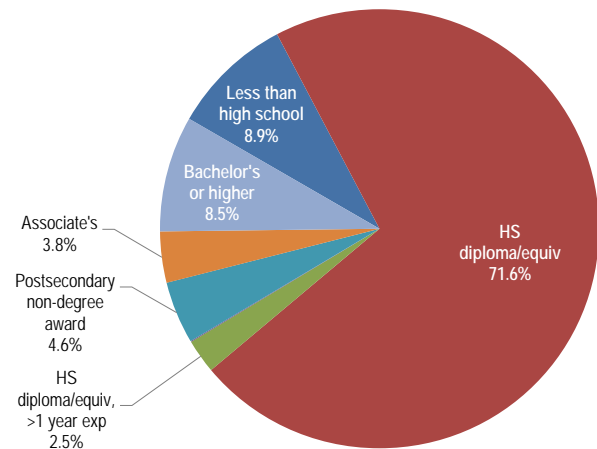
Other Fabricated Metal Product Mfg. (3329)

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

	Occupation as a share of NAICS	LA City Occupation Employment	LA County Median Annual Wage
Production Occupations	60.3%	8,501	
51-4041 Machinists	9.4%	1,325	\$36,099
51-4121 Welders, Cutters, Solderers, and Brazers	6.1%	860	\$34,959
51-2092 Team Assemblers	5.4%	761	\$23,507
51-1011 First-Line Supervisors of Production and Operating Workers	4.5%	634	\$51,218
51-4031 Cutting, Punching, and Press Machine Setters, Operators, and Tenders, Metal and Plastic	4.2%	592	\$28,554
51-4011 Computer-Controlled Machine Tool Operators, Metal and Plastic	3.6%	508	\$33,773
51-9061 Inspectors, Testers, Sorters, Samplers, and Weighers	2.9%	409	\$34,469
51-2041 Structural Metal Fabricators and Fitters	2.8%	395	\$35,676
51-9198 Helpers--Production Workers	2.8%	395	\$21,162
51-4033 Grinding/Lapping/Polishing,/Buffing Machine Tool Setters/Operators/Tenders, Metal/Plastic	2.1%	296	\$26,090
51-9121 Coating, Painting, and Spraying Machine Setters, Operators, and Tenders	1.9%	268	\$24,110
Other Production Occupations	14.8%	2,087	
Office and Administrative Support Occupations	11.0%	1,551	
43-5071 Shipping, Receiving, and Traffic Clerks	1.9%	268	\$28,322
43-9061 Office Clerks, General	1.9%	268	\$29,692
Other Office and Administrative Support Occupations	7.2%	1,015	
All Other Industry Occupations	28.7%	4,046	
Total* Across All Occupations in the Industry	100.0%	14,098	

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).

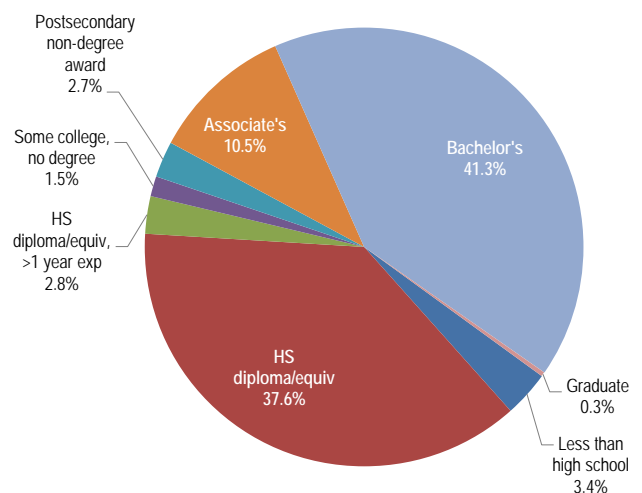
Navigational, Measuring, Electromedical and Control Instruments Manufacturing (3345)

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

	Occupation as a share of NAICS	LA City Occupation Employment	LA County Median Annual Wage
Production Occupations	29.3%	4,230	
51-2022 Electrical and Electronic Equipment Assemblers	9.2%	1,328	\$27,392
51-2092 Team Assemblers	4.3%	621	\$23,507
51-9061 Inspectors, Testers, Sorters, Samplers, and Weighers	2.9%	419	\$34,469
51-9141 Semiconductor Processors	2.0%	289	\$32,840
51-1011 First-Line Supervisors of Production and Operating Workers	2.0%	289	\$51,218
Other Production Occupations	9.0%	1,299	
Architecture and Engineering Occupations	18.8%	2,714	
17-3023 Electrical and Electronics Engineering Technicians	3.5%	505	\$62,997
17-2071 Electrical Engineers	3.0%	433	\$100,091
17-2072 Electronics Engineers, Except Computer	2.9%	419	\$101,548
17-2112 Industrial Engineers	2.5%	361	\$92,369
Other Architecture and Engineering Occupations	6.8%	982	
Computer and Mathematical Occupations	13.3%	1,920	
15-1133 Software Developers, Systems Software	5.4%	780	\$108,273
15-1132 Software Developers, Applications	3.1%	448	\$94,358
Other Computer and Mathematical Occupations	4.8%	693	
Management Occupations	11.3%	1,631	
11-9041 Architectural and Engineering Managers	2.6%	375	\$141,356
11-1021 General and Operations Managers	2.0%	289	\$113,956
Other Management Occupations	8.7%	1,256	
All Other Industry Occupations	27.3%	3,941	
Total* Across All Occupations in the Industry	100.0%	14,436	

Sources: BLS, CA EDD, estimates by LAEDC

*May not sum due to rounding

Transportation Equipment Manufacturing (NAICS 336)

Industries within this subsector manufacture equipment for transporting people and goods.

Motor Vehicle Manufacturing (3361)

Motor vehicle manufacturing includes establishments that manufacture complete automobile and light duty motor vehicles, or the chassis only for light duty or heavy duty vehicles. Also includes assembling heavy duty trucks, buses, heavy duty motor homes and other special purpose heavy duty vehicles for highway use. The industry group has two industries: automobile and light duty motor vehicle manufacturing (33611) and heavy duty truck manufacturing (33612).

Motor Vehicle Body and Trailer Mfg. (3362)

Motor vehicle body and trailer manufacturing firms primarily manufacture motor vehicle bodies and cabs, truck, automobile and utility trailers, truck trailer chassis, detachable trailer bodies and detachable trailer chassis. The industry group has one industry: motor vehicle body and trailer manufacturing (33621).

Motor Vehicle Parts Manufacturing (3363)

Motor vehicle parts manufacturing firms mainly manufacture and/or rebuild motor vehicle parts. The industry group has eight industries: motor vehicle gasoline engine and engine parts manufacturing (33631), motor vehicle electrical and electronic equipment manufacturing (33632), motor vehicle steering and suspension components except spring (33633), motor vehicle brake system manufacturing (33634), motor vehicle transmission and power train parts manufacturing (33635), motor vehicle seating and interior trim manufacturing (33636), motor vehicle metal stamping (33637) and other motor vehicle parts manufacturing (33639).

Aerospace Product and Parts Manufacturing (3364)

Aerospace product and parts manufacturing establishments are primarily involved in manufacturing complete aircraft, missiles or space vehicles, manufacturing aerospace engines, propulsion units, auxiliary equipment or parts, developing and making prototypes of aerospace products, aircraft conversions as well as complete aircraft or propulsion systems overhaul and rebuilding. The industry group has one industry: aerospace product and parts manufacturing (33641).

Railroad Rolling Stock Manufacturing (3365)

Railroad Rolling Stock Manufacturing firms mainly manufacture and/or rebuild locomotives, locomotive frames and parts; manufacture railroad, street and rapid transit cars and car equipment for operation on rails for freight and passenger service as well as manufacture rail layers, ballast distributors, rail tamping equipment and other railway track maintenance equipment. The industry group has one industry: railroad rolling stock manufacturing (33651).

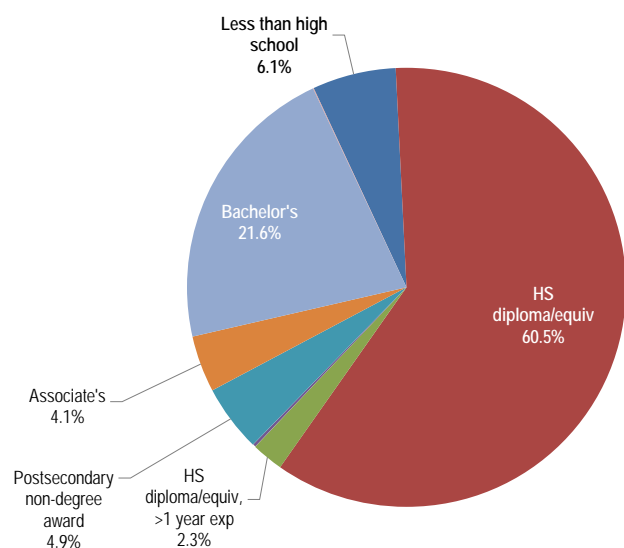
Ship and Boat Building (3366)

Ship and Boat Building establishments mainly operate shipyards and boatyards (ship or boat manufacturing facilities). The industry group has one industry: ship and boat building (33661).

Other Transportation Equipment Mfg. (3367)

Other Transportation Equipment Manufacturing firms manufacture and/or rebuild motor vehicle parts and accessories. The industry group has one industry: other transportation equipment manufacturing (33699).

Entry Level Education and Experience



Transportation Equipment Manufacturing (cont'd)

Industries within this subsector manufacture equipment for transporting people and goods.

Occupational Distribution of Transportation Equipment Manufacturing in LA County

	Occupation as a share of NAICS	LA City Occupation Employment	LA County Median Annual Wage
Production Occupations	49.8%	4,842	
51-2092 Team Assemblers	13.5%	1,313	\$23,507
51-4041 Machinists	3.9%	379	\$36,099
51-2099 Assemblers and Fabricators, All Other	3.6%	350	\$25,925
51-9061 Inspectors, Testers, Sorters, Samplers, and Weighers	3.3%	321	\$34,469
51-4121 Welders, Cutters, Solderers, and Brazers	3.2%	311	\$34,959
51-1011 First-Line Supervisors of Production and Operating Workers	3.1%	301	\$51,218
Other Production Occupations	19.3%	1,877	
Architecture and Engineering Occupations	12.7%	1,235	
17-2112 Industrial Engineers	2.9%	282	\$92,369
17-2141 Mechanical Engineers	2.5%	243	\$89,032
17-2011 Aerospace Engineers	2.2%	214	\$117,348
Other Architecture and Engineering Occupations	5.1%	496	
All Other Industry Occupations	37.5%	3,646	
Total* Across All Occupations in the Industry	100.0%	9,723	

Sources: BLS, CA EDD, estimates by LAEDC

*May not sum due to rounding

Motion Picture and Sound Recording Industries (NAICS 512)

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

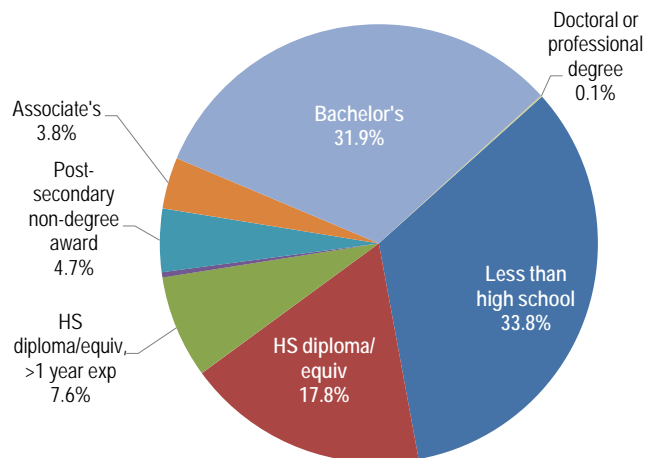
Motion Picture and Video Industries (5121)

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

	Occupation as a share of NAICS	LA City Occupation Employment	LA County Median Annual Wage
Arts, Design, Entertainment, Sports, and Media Occupations	31.3%	19,709	
27-2012 Producers and Directors	9.6%	6,045	\$ 121,461
27-4032 Film and Video Editors	3.9%	2,456	\$ 97,339
27-1014 Multimedia Artists and Animators	2.4%	1,511	\$ 81,166
27-4011 Audio and Video Equipment Technicians	2.0%	1,259	\$ 47,298
27-4014 Sound Engineering Technicians	2.0%	1,259	\$ 69,167
Other Arts, Design, Ent, Sports, and Media Occupations	11.3%	7,115	
Personal Care and Service Occupations	15.1%	9,508	
39-3031 Ushers, Lobby Attendants, and Ticket Takers	10.5%	6,612	\$ 20,873
39-3021 Motion Picture Projectionists	2.5%	1,574	\$ 26,202
Other Transportation and Material Moving Occupations	2.2%	1,385	
Food Preparation and Serving Related Occupations	13.5%	8,501	
35-3022 Counter Attendants, Cafeteria, Food Concession, and Coffee Shop	10.7%	6,737	\$ 19,217
Other Sales and Related Occupations	2.8%	1,763	
Office and Administrative Support Occupations	10.8%	6,800	
43-6014 Secretaries and Admin Assistants (not legal, med or executive)	1.5%	945	\$ 36,040
Other Office and Administrative Support Occupations	9.3%	5,856	
All Other Industry Occupations	29.3%	18,449	
Total* Across All Occupations in the Industry	100.0%	62,967	

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.

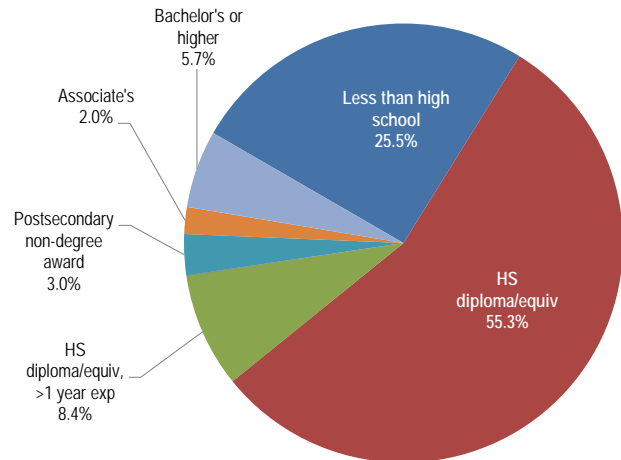
Radio and Television Broadcasting (5151)

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

Occupation	Occupation as a share of NAICS	LA City Occupation Employment	LA County Median Annual Wage
Arts, Design, Entertainment, Sports, and Media Occupations	38.3%	5,391	
27-4012 Broadcast Technicians	9.4%	1,323	\$44,631
27-2012 Producers and Directors	9.0%	1,267	\$121,461
27-3022 Reporters and Correspondents	4.3%	605	\$41,261
27-4031 Camera Operators, Television, Video, and Motion Picture	2.7%	380	\$51,664
27-4021 Photographers	1.9%	267	\$45,015
Other Arts, Design, Entertainment, Sports, and Media Occupations	11.1%	1,563	
Office and Administrative Support Occupations	19.7%	2,773	
43-4051 Customer Service Representatives	5.9%	831	\$35,296
43-9061 Office Clerks, General	2.4%	338	\$29,692
Other Office and Administrative Support Occupations	11.4%	1,605	
Sales and Related Occupations	14.5%	2,041	
41-3011 Advertising Sales Agents	10.7%	1,506	\$52,892
Other Sales and Related Occupations	3.7%	521	
Installation, Maintenance, and Repair Occupations	11.0%	1,548	
49-9052 Telecommunications Line Installers and Repairers	4.8%	676	\$54,041
49-2022 Telecommunications Equipment Installers and Repairers, Except Line Installers	4.0%	563	\$56,610
Other Installation, Maintenance, and Repair Occupations	7.0%	985	
All Other Industry Occupations	16.6%	2,337	
Total* Across All Occupations in the Industry	100.0%	14,077	

Sources: BLS, CA EDD, estimates by LAEDC

*May not sum due to rounding

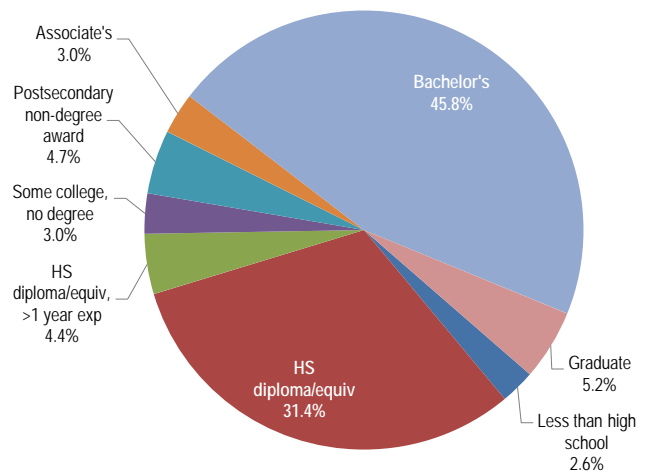
Other Information Services (NAICS 519)

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

	Occupation as a share of NAICS	LA City Occupation Employment	LA County Median Annual Wage
Computer and Mathematical Occupations	24.8%	884	
15-1132 Software Developers, Applications	6.6%	235	\$94,358
15-1179 Information Security Analysts, Web Developers, and Computer Network Architects	4.3%	153	\$75,803
15-1150 Computer Support Specialists	2.9%	103	\$51,461
15-1131 Computer Programmers	2.2%	78	\$85,490
15-1133 Software Developers, Systems Software	2.1%	75	\$108,273
Other Computer and Mathematical Occupations	6.7%	239	
Office and Administrative Support Occupations	22.6%	805	
43-4121 Library Assistants, Clerical	5.1%	182	\$24,712
43-4051 Customer Service Representatives	4.5%	160	\$35,296
43-9061 Office Clerks, General	2.5%	89	\$29,692
Other Office and Administrative Support Occupations	10.4%	371	
Arts, Design, Entertainment, Sports, and Media Occupations	11.3%	403	
27-3041 Editors	3.7%	132	\$56,142
27-3022 Reporters and Correspondents	2.1%	75	\$41,261
Other Arts, Design, Entertainment, Sports, and Media Occupations	5.6%	200	
Management Occupations	10.5%	374	
11-1021 General and Operations Managers	2.7%	96	\$113,956
11-3021 Computer and Information Systems Managers	2.4%	86	\$133,082
Other Management Occupations	7.8%	278	
All Other Industry Occupations	30.7%	1,094	
Total* Across All Occupations in the Industry	100.0%	3,563	

Sources: BLS, CA EDD, estimates by LAEDC

*May not sum due to rounding

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).

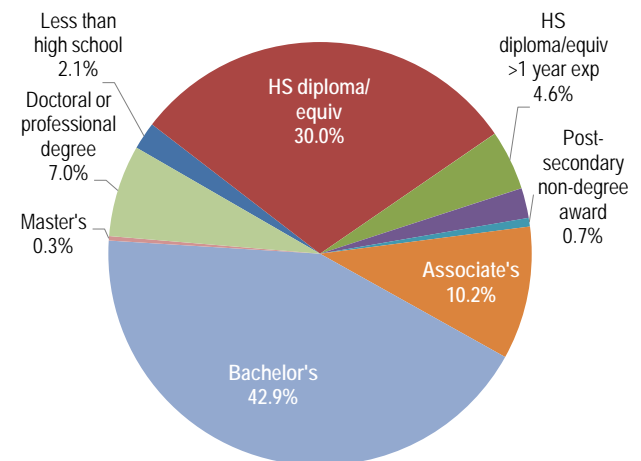
Advertising, Public Relations, and Related Services (5418)

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.

Occupational Distribution of Professional and Technical Services in LA County

	Occupation as a share of NAICS	LA City Occupation Employment	LA County Median Annual Wage
Office and Administrative Support Occupations	22.5%	29,590	
43-9061 Office Clerks, General	3.2%	4,208	\$ 29,692
43-6014 Secretaries and Administrative Assistants, Except Legal, Medical, and Executive	2.8%	3,682	\$ 36,040
43-3031 Bookkeeping, Accounting, and Auditing Clerks	2.8%	3,682	\$ 38,918
43-6012 Legal Secretaries	2.6%	3,419	\$ 51,075
Other Office and Administrative Support Occupations	11.2%	14,729	
Computer and Mathematical Occupations	15.8%	20,779	
15-1132 Software Developers, Applications	3.1%	4,077	\$ 94,358
15-1121 Computer Systems Analysts	2.4%	3,156	\$ 86,114
15-1133 Software Developers, Systems Software	2.4%	3,156	\$ 108,273
15-1150 Computer Support Specialists	2.2%	2,893	\$ 51,461
15-1131 Computer Programmers	1.9%	2,499	\$ 85,490
Other Computer and Mathematical Occupations	3.8%	4,997	
Business and Financial Operations Occupations	14.3%	18,806	
13-2011 Accountants and Auditors	4.9%	6,444	\$ 68,193
13-1111 Management Analysts	2.8%	3,682	\$ 84,476
Other Business and Financial Operations Occupations	6.6%	8,680	
Architecture and Engineering Occupations	10.4%	13,677	
17-2051 Civil Engineers	1.8%	2,367	\$ 91,931
Other Architecture and Engineering Occupations	8.6%	11,310	
All Other Industry Occupations	37.0%	48,660	
Total* Across All Occupations in the Industry	100.0%	131,513	

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 includes 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 includes 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 includes 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 includes 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).

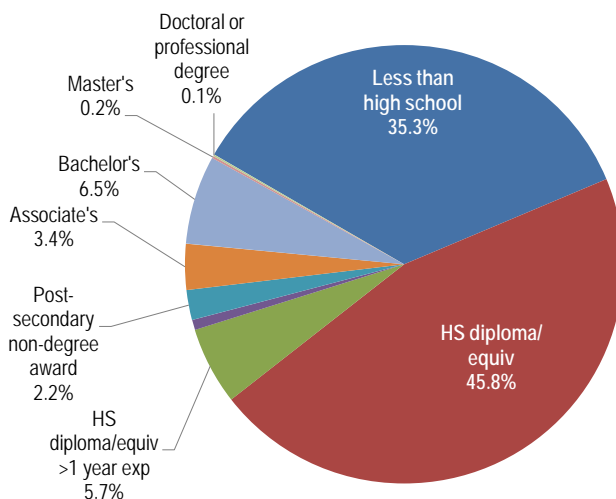
Services to Buildings and Dwellings (5617)

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 includes 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

	Occupation as a share of NAICS	LA City Occupation Employment	LA County Median Annual Wage
Office and Administrative Support Occupations	22.4%	22,585	
43-4051 Customer Service Representatives	5.0%	5,041	\$ 35,296
43-9061 Office Clerks, General	3.5%	3,529	\$ 29,692
Other Office and Administrative Support Occupations	13.9%	14,015	
Building and Grounds Cleaning and Maintenance Occupations	22.1%	22,282	
37-2011 Janitors and Cleaners, Except Maids and Housekeeping Cleaners	11.1%	11,191	\$ 22,747
37-3011 Landscaping and Groundskeeping Workers	6.2%	6,251	\$ 24,570
Other Building and Grounds Cleaning and Maint Occupations	4.8%	4,840	
Protective Service Occupations	9.8%	9,881	
33-9032 Security Guards	8.7%	8,772	\$ 24,286
Other Protective Service Occupations	1.1%	1,109	
All Other Industry Occupations	45.7%	46,077	
Total* Across All Occupations in the Industry	100.0%	100,824	

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).

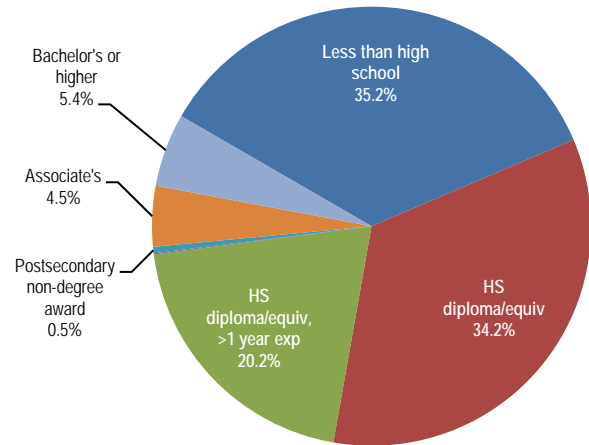
Waste Treatment and Disposal (5622)

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 (5622).

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

	Occupation as a share of NAICS	LA City Occupation Employment	LA County Median Annual Wage
Transportation and Material Moving Occupations	44.0%	1,010	
53-7081 Refuse and Recyclable Material Collectors	19.1%	438	\$43,259
53-3032 Heavy and Tractor-Trailer Truck Drivers	12.6%	289	\$41,482
53-7062 Laborers and Freight, Stock, and Material Movers, Hand	5.5%	126	\$23,147
Other Transportation and Material Moving Occupations	6.8%	156	
Construction and Extraction Occupations	20.0%	459	
47-4041 Hazardous Materials Removal Workers	8.1%	186	\$38,867
47-4071 Septic Tank Servicers and Sewer Pipe Cleaners	3.9%	90	\$34,413
47-2061 Construction Laborers	2.8%	64	\$37,396
47-2073 Operating Engineers and Other Construction Equipment Operators	2.1%	48	\$78,266
47-1011 First-Line Supervisors of Construction Trades and Extraction Workers	2.0%	46	\$72,615
Other Construction and Extraction Occupations	1.2%	28	
Office and Administrative Support Occupations	12.2%	280	
43-9061 Office Clerks, General	2.7%	62	\$29,692
43-6014 Secretaries and Administrative Assistants, Except Legal, Medical, and Executive	2.0%	46	\$36,040
Other Office and Administrative Support Occupations	9.5%	218	
All Other Industry Occupations	23.7%	544	
Total* Across All Occupations in the Industry	100.0%	2,295	

Sources: BLS, CA EDD, estimates by LAEDC

*May not sum due 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).

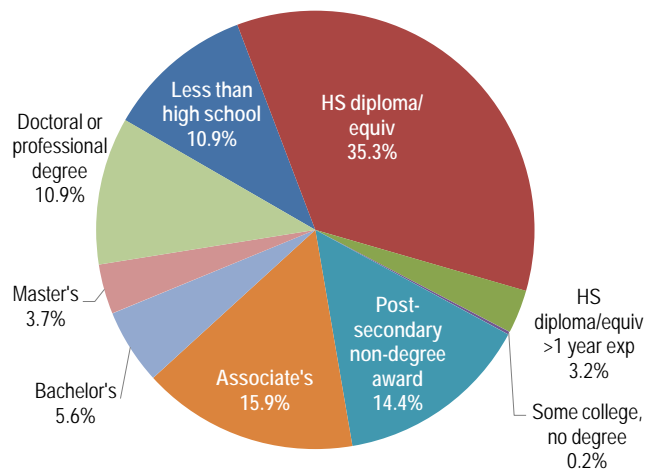
Home Health Care Services (6216)

Home health care services includes 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 includes 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

	Occupation as a share of NAICS	LA City Occupation Employment	LA County Median Annual Wage
Healthcare Practitioners and Technical Occupations	36.2%	27,481	
29-1111 Registered Nurses*	8.6%	6,529	\$ 85,178
29-2061 Licensed Practical and Licensed Vocational Nurses	3.1%	2,353	\$ 50,213
29-2021 Dental Hygienists	3.0%	2,277	\$ 100,378
29-1069 Physicians and Surgeons, All Other	2.8%	2,126	> \$ 187,200
29-2041 Emergency Medical Technicians and Paramedics	1.9%	1,442	\$ 27,477
Other Healthcare Practitioners and Technical Occupations	16.7%	12,677	
Office and Administrative Support Occupations	26.2%	19,889	
43-6013 Medical Secretaries	5.6%	4,251	\$ 33,483
43-4171 Receptionists and Information Clerks	5.5%	4,175	\$ 27,400
43-9061 Office Clerks, General	3.2%	2,429	\$ 29,692
43-3021 Billing and Posting Clerks	2.4%	1,822	\$ 35,095
43-1011 First-Line Supervisors of Office and Administrative Support Workers	2.2%	1,670	\$ 56,230
43-6014 Secretaries and Administrative Assistants, Except Legal, Medical and Executive	1.9%	1,442	\$ 36,040
Other Office and Administrative Support Occupations	5.5%	4,175	
Healthcare Support Occupations	22.5%	17,080	
31-9092 Medical Assistants	7.1%	5,390	\$ 30,362
31-1011 Home Health Aides	5.7%	4,327	\$ 20,913
31-9091 Dental Assistants	4.7%	3,568	\$ 32,631
Other Healthcare Support Occupations	5.0%	3,796	
All Other Industry Occupations	15.1%	11,463	
Total* Across All Occupations in the Industry	100.0%	75,913	

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

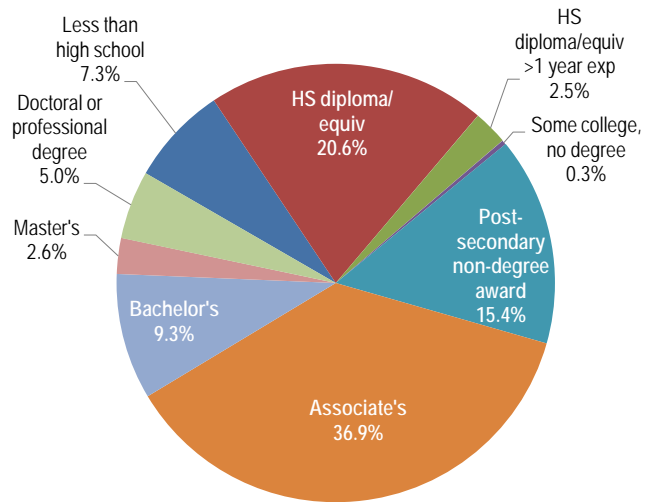
Psychiatric and Substance Abuse Hospitals (6222)

Psychiatric and substance abuse hospitals includes 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).

Entry Level Education and Experience



Occupational Distribution of Hospitals in LA County

	Occupation as a share of NAICS	LA City Occupation Employment	LA County Median Annual Wage
Healthcare Practitioners and Technical Occupations	54.2%	38,511	
29-1111 Registered Nurses*	29.4%	20,890	\$ 85,178
29-2061 Licensed Practical and Licensed Vocational Nurses	2.7%	1,918	\$ 50,213
29-2037 Radiologic Technologists and Technicians*	2.4%	1,705	\$ 64,603
29-2011 Medical and Clinical Laboratory Technologists	1.8%	1,279	\$ 79,046
Other Healthcare Practitioners and Technical Occupations	17.8%	12,648	
Office and Administrative Support Occupations	14.0%	9,948	
43-6013 Medical Secretaries	2.5%	1,776	\$ 33,483
43-9061 Office Clerks, General	1.8%	1,279	\$ 29,692
Other Office and Administrative Support Occupations	9.7%	6,892	
Healthcare Support Occupations	12.7%	9,024	
31-1012 Nursing Aides, Orderlies, and Attendants*	7.4%	5,258	\$ 26,078
Other Healthcare Support Occupations	5.4%	3,837	
All Other Industry Occupations	19.1%	13,571	
Total* Across All Occupations in the Industry	100.0%	71,054	

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

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).

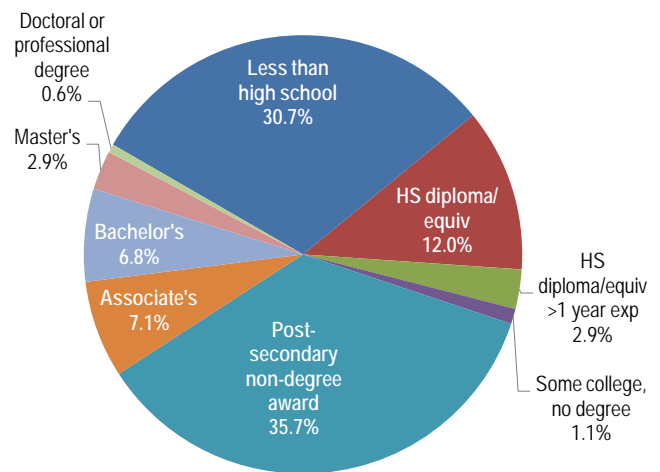
Continuing Care Retirement Communities and Assisted Living Facilities for the Elderly (6233)

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 includes 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.

Occupational Distribution of Nursing and Residential Care Facilities in LA County

	Occupation as a share of NAICS	LA City Occupation Employment	LA County Median Annual Wage
Healthcare Support Occupations	39.5%	11,859	
31-1012 Nursing Aides, Orderlies, and Attendants*	26.4%	7,926	\$26,078
31-1011 Home Health Aides	11.2%	3,362	\$20,913
Other Healthcare Support Occupations	1.9%	570	
Healthcare Practitioners and Technical Occupations	17.0%	5,104	
29-2061 Licensed Practical and Licensed Vocational Nurses	8.5%	2,552	\$50,213
29-1111 Registered Nurses*	5.8%	1,741	\$85,178
Other Healthcare Practitioners and Technical Occupations	2.7%	811	
Food Preparation and Serving Related Occupations	10.4%	3,122	
35-2012 Cooks, Institution and Cafeteria	2.8%	841	\$ 27,206
35-3041 Food Servers, Nonrestaurant	2.6%	781	\$ 22,908
Other Sales and Related Occupations	5.0%	1,501	
All Other Industry Occupations	33.2%	9,967	
Total* Across All Occupations in the Industry	100.0%	30,022	

Sources: BLS, CA EDD, estimates by LAEDC

*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 short-term 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).

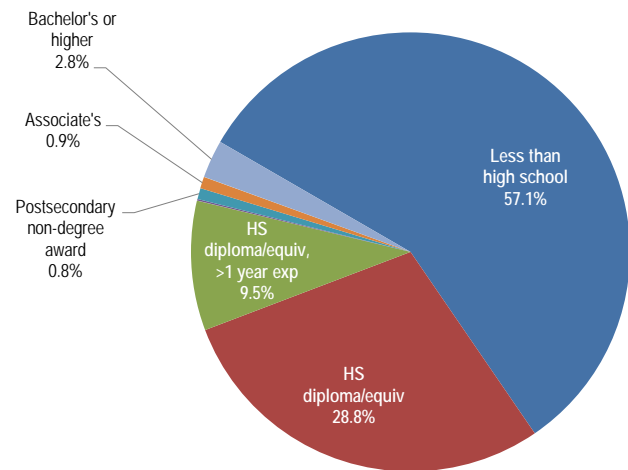
RV (Recreational Vehicle) Parks and Recreational Camps (7212)

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

	Occupation as a share of NAICS	LA City Occupation Employment	LA County Median Annual Wage
Building and Grounds Cleaning and Maintenance Occupations	29.4%	5,946	
37-2012 Maids and Housekeeping Cleaners	23.7%	4,793	\$21,507
37-2011 Janitors and Cleaners, Except Maids and Housekeeping Cleaners	2.8%	566	\$22,747
Other Building and Grounds Cleaning and Maintenance Occupations	2.9%	586	
Food Preparation and Serving Related Occupations	25.1%	5,076	
35-3031 Waiters and Waitresses	7.3%	1,476	\$18,868
35-2014 Cooks, Restaurant	3.3%	667	\$22,428
35-9011 Dining Room and Cafeteria Attendants and Bartender Helpers	2.4%	485	\$18,753
35-3011 Bartenders	2.0%	404	\$19,222
35-3041 Food Servers, Nonrestaurant	1.9%	384	\$22,908
Other Food Preparation and Serving Related Occupations	8.1%	1,638	
Office and Administrative Support Occupations	19.0%	3,842	
43-4081 Hotel, Motel, and Resort Desk Clerks	12.3%	2,487	\$22,388
Other Office and Administrative Support Occupations	6.7%	1,355	
All Other Industry Occupations	26.6%	5,379	
Total* Across All Occupations in the Industry	100.0%	20,223	

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).

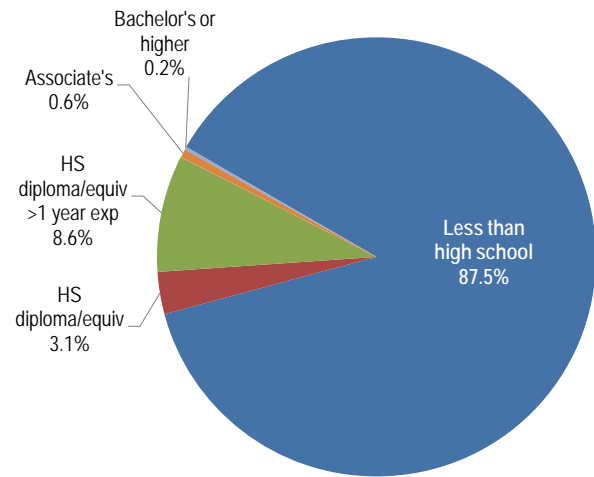
Drinking Places (Alcoholic Beverages) (7224)

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 includes 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

Occupation	Occupation as a share of NAICS	LA City Occupation Employment	LA County Median Annual Wage
Food Preparation and Serving Related Occupations	90.2%	117,291	
35-3021 Combined Food Preparation and Serving Workers, Including Fast Food	24.4%	31,728	\$ 18,953
35-3031 Waiters and Waitresses	20.9%	27,177	\$ 18,868
35-2014 Cooks, Restaurant	8.8%	11,443	\$ 22,428
35-1012 First-Line Supervisors of Food Preparation and Serving Workers	6.3%	8,192	\$ 27,326
35-2011 Cooks, Fast Food	5.0%	6,502	\$ 18,684
35-2021 Food Preparation Workers	4.3%	5,591	\$ 19,148
35-9021 Dishwashers	4.3%	5,591	\$ 18,891
35-3011 Bartenders	4.0%	5,201	\$ 19,222
35-9031 Hosts and Hostesses, Restaurant, Lounge, and Coffee Shop	3.1%	4,031	\$ 19,251
35-9011 Dining Room and Cafeteria Attendants and Bartender Helpers	3.0%	3,901	\$ 18,753
35-3022 Counter Attendants, Cafeteria, Food Concession, and Coffee Shop	2.9%	3,771	\$ 19,217
35-2015 Cooks, Short Order	1.4%	1,820	\$ 23,375
Other Food Preparation and Serving Related Occupations	1.9%	2,471	
All Other Industry Occupations	9.8%	12,743	
Total* Across All Occupations in the Industry	100.0%	130,034	

Sources: BLS, CA EDD, estimates by LAEDC

*May not sum due to rounding

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APPENDICES

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A1 Detailed Tables

Exhibit A-1

**Private Sector Industry Employment
City of Los Angeles 2011**

NAICS	Industry	Employment	% of total
211	Oil and gas extraction	629	0.0%
212	Mining, except oil and gas	146	0.0%
213	Support activities for mining	657	0.0%
221	Utilities	2,427	0.1%
236	Construction of buildings	10,844	0.6%
237	Heavy and civil engineering construction	4,107	0.2%
238	Specialty trade contractors	27,773	1.6%
311	Food manufacturing	11,270	0.7%
312	Beverage and tobacco prod manufacturing	2,780	0.2%
313	Textile mills	3,729	0.2%
314	Textile product mills	1,540	0.1%
315	Apparel manufacturing	20,033	1.2%
316	Leather and allied product manufacturing	659	0.0%
321	Wood product manufacturing	1,097	0.1%
322	Paper manufacturing	1,243	0.1%
323	Printing and related support activities	5,547	0.3%
324	Petroleum and coal prods manufacturing	1,406	0.1%
325	Chemical manufacturing	9,582	0.6%
326	Plastics and rubber prods manufacturing	3,684	0.2%
327	Nonmetallic mineral prod manufacturing	2,422	0.1%
331	Primary metal manufacturing	927	0.1%
332	Fabricated metal product manufacturing	14,188	0.8%
333	Machinery manufacturing	3,287	0.2%
334	Computer / electronic prod manufacturing	14,529	0.8%
335	Electrical equipment and appliance mfg.	1,898	0.1%
336	Transportation equipment manufacturing	9,785	0.6%
337	Furniture and related prod manufacturing	4,675	0.3%
339	Miscellaneous manufacturing	7,287	0.4%
423	Merchant wholesalers, durable goods	32,657	1.9%
424	Merchant wholesalers, nondurable goods	39,317	2.3%
425	Electronic markets and agents	7,278	0.4%
441	Motor vehicle and parts dealers	12,381	0.7%
442	Furniture and home furnishings stores	5,257	0.3%
443	Electronics and appliance stores	6,632	0.4%
444	Building material and garden supply stores	9,575	0.6%
445	Food and beverage stores	36,620	2.1%
446	Health and personal care stores	12,112	0.7%
447	Gasoline stations	4,411	0.3%
448	Clothing and clothing accessories stores	22,546	1.3%
451	Sporting, hobby, book / music stores	5,556	0.3%
452	General merchandise stores	23,955	1.4%
453	Miscellaneous store retailers	11,984	0.7%
454	Nonstore retailers	3,680	0.2%
481	Air transportation	15,741	0.9%
483	Water transportation	890	0.1%

NAICS	Industry	Employment	% of total
484	Truck transportation	6,174	0.4%
485	Transit and ground passenger transport	6,231	0.4%
486	Pipeline transportation	195	0.0%
487	Scenic and sightseeing transportation	404	0.0%
488	Support activities for transportation	15,419	0.9%
491	Postal service	120	0.0%
492	Couriers and messengers	11,901	0.7%
493	Warehousing and storage	2,412	0.1%
511	Publishing industries, except internet	8,676	0.5%
512	Motion picture and sound recording	63,371	3.7%
515	Broadcasting, except internet	14,167	0.8%
517	Telecommunications	10,073	0.6%
518	Data processing, hosting, related services	1,466	0.1%
519	Other information services	3,586	0.2%
521	Monetary authorities - central bank	328	0.0%
522	Credit intermediation and related activities	29,895	1.7%
523	Securities, commodities, investments	13,239	0.8%
524	Insurance carriers and related activities	21,285	1.2%
525	Funds, trusts, and other financial vehicles	1,493	0.1%
531	Real estate	26,040	1.5%
532	Rental and leasing services	10,141	0.6%
533	Lessors of nonfinancial intangible assets	420	0.0%
541	Professional and technical services	132,357	7.7%
551	Management of companies / enterprises	22,737	1.3%
561	Administrative and support services	101,471	5.9%
562	Waste mgmt and remediation services	2,310	0.1%
611	Educational services	54,613	3.2%
621	Ambulatory health care services	76,400	4.5%
622	Hospitals	44,573	2.6%
623	Nursing and residential care facilities	30,215	1.8%
624	Social assistance	31,304	1.8%
711	Performing arts and spectator sports	16,627	1.0%
712	Museums, historical sites, zoos, and parks	3,201	0.2%
713	Amusements, gambling, and recreation	11,139	0.7%
721	Accommodation	20,353	1.2%
722	Food services and drinking places	130,869	7.7%
811	Repair and maintenance	14,446	0.8%
812	Personal and laundry services	23,104	1.4%
813	Membership associations and orgs	20,767	1.2%

Sources: California Employment Development Department; LAEDC

Exhibit A-2

**Competitiveness of Private Sector Industries
City of Los Angeles 2012Q3
(Location Quotients v. California and US)**

NAICS	Industry	CA	US
211	Oil and gas extraction	0.5	0.3
212	Mining, except oil and gas	0.4	0.1
213	Support activities for mining	0.8	0.2
221	Utilities	0.4	0.3
236	Construction of buildings	0.7	0.7
237	Heavy and civil engineering construction	0.4	0.3
238	Specialty trade contractors	0.6	0.6
311	Food manufacturing	0.6	0.6
312	Beverage and tobacco prod manufacturing	0.5	1.1
313	Textile mills	3.7	2.4
314	Textile product mills	1.6	1.0
315	Apparel manufacturing	3.0	10.4
316	Leather and allied product manufacturing	1.6	1.7
321	Wood product manufacturing	0.5	0.2
322	Paper manufacturing	0.5	0.2
323	Printing and related support activities	1.1	0.9
324	Petroleum and coal prods manufacturing	0.8	1.0
325	Chemical manufacturing	1.1	0.9
326	Plastics and rubber prods manufacturing	0.7	0.4
327	Nonmetallic mineral prod manufacturing	0.7	0.5
331	Primary metal manufacturing	0.4	0.2
332	Fabricated metal product manufacturing	1.0	0.8
333	Machinery manufacturing	0.4	0.2
334	Computer / electronic prod manufacturing	0.5	1.0
335	Electrical equipment and appliance mfg.	0.6	0.4
336	Transportation equipment manufacturing	0.8	0.5
337	Furniture and related prod manufacturing	1.3	1.0
339	Miscellaneous manufacturing	0.8	1.0
423	Merchant wholesalers, durable goods	0.9	0.9
424	Merchant wholesalers, nondurable goods	1.3	1.5
425	Electronic markets and agents	0.6	0.6
441	Motor vehicle and parts dealers	0.6	0.5
442	Furniture and home furnishings stores	0.9	0.9
443	Electronics and appliance stores	0.9	1.0
444	Building material and garden supply stores	0.7	0.6
445	Food and beverage stores	0.9	1.0
446	Health and personal care stores	1.0	0.9
447	Gasoline stations	0.7	0.4
448	Clothing and clothing accessories stores	1.1	1.2
451	Sporting, hobby, book / music stores	0.7	0.7
452	General merchandise stores	0.7	0.6
453	Miscellaneous store retailers	1.2	1.1
454	Nonstore retailers	0.8	0.6
481	Air transportation	3.1	2.6
483	Water transportation	1.4	1.0

NAICS	Industry	CA	US
484	Truck transportation	0.5	0.3
485	Transit and ground passenger transport	1.3	1.2
486	Pipeline transportation	0.6	0.3
487	Scenic and sightseeing transportation	0.9	1.0
488	Support activities for transportation	1.6	2.0
491	Postal service	1.4	1.7
492	Couriers and messengers	1.8	1.7
493	Warehousing and storage	0.3	0.3
511	Publishing industries, except internet	0.9	0.9
512	Motion picture and sound recording	3.8	12.9
515	Broadcasting, except internet	2.8	3.8
517	Telecommunications	0.9	0.9
518	Data processing, hosting, related services	0.6	0.4
519	Other information services	0.6	1.6
521	Monetary authorities - central bank	1.9	1.4
522	Credit intermediation and related activities	1.0	0.9
523	Securities, commodities, investments	1.5	1.3
524	Insurance carriers and related activities	1.0	0.8
525	Funds, trusts, and other financial vehicles	1.2	1.3
531	Real estate	1.2	1.4
532	Rental and leasing services	1.5	1.5
533	Lessors of nonfinancial intangible assets	1.2	1.3
541	Professional and technical services	1.0	1.3
551	Management of companies / enterprises	1.0	0.9
561	Administrative and support services	1.0	1.0
562	Waste mgmt and remediation services	0.5	0.5
611	Educational services	1.5	1.6
621	Ambulatory health care services	1.0	0.9
622	Hospitals	1.0	0.7
623	Nursing and residential care facilities	1.0	0.7
624	Social assistance	1.2	0.9
711	Performing arts and spectator sports	2.2	3.1
712	Museums, historical sites, zoos, and parks	1.6	1.7
713	Amusements, gambling, and recreation	0.5	0.5
721	Accommodation	0.9	0.8
722	Food services and drinking places	1.0	1.0
811	Repair and maintenance	0.9	0.9
812	Personal and laundry services	1.3	1.3
813	Membership associations and orgs	1.2	1.2

Sources: California Employment Development Department; estimates by LAEDC

Exhibit A-3

**Competitiveness of Private Sector Industries
City of Los Angeles County 2012Q3
(% Change in Location Quotients v. California and US)**

NAICS	Industry	CA	US
211	Oil and gas extraction	-8.9%	-23.5%
212	Mining, except oil and gas	64.3%	30.4%
213	Support activities for mining	133.8%	85.4%
221	Utilities	8.1%	33.7%
236	Construction of buildings	31.1%	35.8%
237	Heavy and civil engineering construction	9.9%	9.0%
238	Specialty trade contractors	12.0%	4.3%
311	Food manufacturing	-16.8%	-14.4%
312	Beverage and tobacco prod manufacturing	3.6%	45.0%
313	Textile mills	-2.8%	59.2%
314	Textile product mills	-11.6%	-27.8%
315	Apparel manufacturing	-19.0%	30.6%
316	Leather and allied product manufacturing	-13.3%	0.4%
321	Wood product manufacturing	10.1%	-11.1%
322	Paper manufacturing	-6.7%	-5.8%
323	Printing and related support activities	-20.1%	-23.6%
324	Petroleum and coal prods manufacturing	30.3%	37.1%
325	Chemical manufacturing	-5.9%	9.5%
326	Plastics and rubber prods manufacturing	-5.7%	-12.7%
327	Nonmetallic mineral prod manufacturing	-10.6%	-18.5%
331	Primary metal manufacturing	-55.0%	-54.9%
332	Fabricated metal product manufacturing	-7.4%	-12.6%
333	Machinery manufacturing	-21.2%	-29.8%
334	Computer / electronic prod manufacturing	1.2%	8.6%
335	Electrical equipment and appliance mfg.	-16.2%	-13.0%
336	Transportation equipment manufacturing	-4.5%	-7.6%
337	Furniture and related prod manufacturing	-4.8%	-22.2%
339	Miscellaneous manufacturing	-27.7%	-22.5%
423	Merchant wholesalers, durable goods	-6.2%	-6.6%
424	Merchant wholesalers, nondurable goods	2.3%	20.2%
425	Electronic markets and agents	-32.8%	-13.7%
441	Motor vehicle and parts dealers	-4.9%	-12.8%
442	Furniture and home furnishings stores	1.5%	8.9%
443	Electronics and appliance stores	17.2%	1.2%
444	Building material and garden supply stores	17.3%	14.2%
445	Food and beverage stores	0.1%	13.2%
446	Health and personal care stores	8.5%	6.3%
447	Gasoline stations	12.8%	16.2%
448	Clothing and clothing accessories stores	4.1%	12.8%
451	Sporting, hobby, book / music stores	-18.8%	-25.8%
452	General merchandise stores	-5.2%	11.3%
453	Miscellaneous store retailers	26.3%	29.2%
454	Nonstore retailers	-13.0%	12.5%
481	Air transportation	-0.2%	-13.3%
483	Water transportation	-29.3%	-25.7%

NAICS	Industry	CA	US
484	Truck transportation	1.5%	4.7%
485	Transit and ground passenger transport	0.7%	0.7%
486	Pipeline transportation	16.6%	57.7%
487	Scenic and sightseeing transportation	63.0%	101.5%
488	Support activities for transportation	19.5%	22.8%
491	Postal service	-67.0%	-73.2%
492	Couriers and messengers	6.8%	-5.2%
493	Warehousing and storage	-59.7%	-62.7%
511	Publishing industries, except internet	2.3%	5.6%
512	Motion picture and sound recording	24.6%	43.7%
515	Broadcasting, except internet	17.8%	37.3%
517	Telecommunications	5.1%	-1.1%
518	Data processing, hosting, related services	-5.7%	-42.5%
519	Other information services	-61.7%	102.3%
521	Monetary authorities - central bank	-54.5%	-26.7%
522	Credit intermediation and related activities	0.3%	1.6%
523	Securities, commodities, investments	12.6%	0.8%
524	Insurance carriers and related activities	-23.7%	-27.7%
525	Funds, trusts, and other financial vehicles	67.3%	103.8%
531	Real estate	3.7%	7.5%
532	Rental and leasing services	27.5%	22.3%
533	Lessors of nonfinancial intangible assets	20.3%	-0.6%
541	Professional and technical services	3.0%	7.0%
551	Management of companies / enterprises	-16.2%	-48.0%
561	Administrative and support services	4.8%	2.4%
562	Waste mgmt and remediation services	-15.3%	-9.2%
611	Educational services	-2.1%	8.0%
621	Ambulatory health care services	-4.4%	0.1%
622	Hospitals	-11.7%	-14.2%
623	Nursing and residential care facilities	-3.9%	-1.8%
624	Social assistance	4.1%	-2.5%
711	Performing arts and spectator sports	18.3%	27.6%
712	Museums, historical sites, zoos, and parks	-13.9%	-3.3%
713	Amusements, gambling, and recreation	-6.8%	-0.8%
721	Accommodation	9.5%	16.9%
722	Food services and drinking places	6.5%	11.4%
811	Repair and maintenance	7.7%	3.0%
812	Personal and laundry services	0.0%	11.0%
813	Membership associations and orgs	-0.5%	4.6%

Sources: California Employment Development Department; estimates by LAEDC

Exhibit A-4

**Projected New Job Creation 2012-2017
City of Los Angeles 2011**

NAICS	Industry	Number of New Jobs	Annual Average Percent Change
211	Oil and gas extraction	-20	-0.7%
212	Mining, except oil and gas	-5	-0.7%
213	Support activities for mining	-21	-0.7%
221	Utilities	114	0.9%
236	Construction of buildings	1,544	2.7%
237	Heavy and civil engineering construction	1,122	5.0%
238	Specialty trade contractors	6,585	4.3%
311	Food manufacturing	430	0.8%
312	Beverage and tobacco prod manufacturing	211	1.5%
313	Textile mills	-183	-1.0%
314	Textile product mills	-84	-1.1%
315	Apparel manufacturing	-64	-0.1%
316	Leather and allied product manufacturing	308	8.0%
321	Wood product manufacturing	71	1.3%
322	Paper manufacturing	-57	-0.9%
323	Printing and related support activities	114	0.4%
324	Petroleum and coal prods manufacturing	122	1.7%
325	Chemical manufacturing	1,084	2.2%
326	Plastics and rubber prods manufacturing	454	2.4%
327	Nonmetallic mineral prod manufacturing	362	2.8%
331	Primary metal manufacturing	50	1.1%
332	Fabricated metal product manufacturing	1,229	1.7%
333	Machinery manufacturing	525	3.0%
334	Computer / electronic prod manufacturing	914	1.2%
335	Electrical equipment and appliance mfg.	96	1.0%
336	Transportation equipment manufacturing	-539	-1.1%
337	Furniture and related prod manufacturing	563	2.3%
339	Miscellaneous manufacturing	237	0.6%
423	Merchant wholesalers, durable goods	300	0.2%
424	Merchant wholesalers, nondurable goods	1,771	0.9%
425	Electronic markets and agents	1,397	3.6%
441	Motor vehicle and parts dealers	244	0.4%
442	Furniture and home furnishings stores	-249	-1.0%
443	Electronics and appliance stores	-180	-0.5%
444	Building material and garden supply stores	362	0.7%
445	Food and beverage stores	2,391	1.3%
446	Health and personal care stores	779	1.3%
447	Gasoline stations	31	0.1%
448	Clothing and clothing accessories stores	2,276	1.9%
451	Sporting, hobby, book / music stores	195	0.7%
452	General merchandise stores	2,264	1.8%
453	Miscellaneous store retailers	-781	-1.3%
454	Nonstore retailers	915	4.5%
481	Air transportation	812	1.0%
483	Water transportation	46	1.0%

NAICS	Industry	Number of New Jobs	Annual Average Percent Change
484	Truck transportation	318	1.0%
485	Transit and ground passenger transport	321	1.0%
486	Pipeline transportation	10	1.0%
487	Scenic and sightseeing transportation	21	1.0%
488	Support activities for transportation	795	1.0%
491	Postal service	6	1.0%
492	Couriers and messengers	614	1.0%
493	Warehousing and storage	124	1.0%
511	Publishing industries, except internet	174	0.4%
512	Motion picture and sound recording	9,572	2.9%
515	Broadcasting, except internet	954	1.3%
517	Telecommunications	-487	-1.0%
518	Data processing, hosting, related services	64	0.9%
519	Other information services	453	2.4%
521	Monetary authorities - central bank	46	2.6%
522	Credit intermediation and related activities	4,165	2.6%
523	Securities, commodities, investments	1,845	2.6%
524	Insurance carriers and related activities	2,965	2.6%
525	Funds, trusts, and other financial vehicles	208	2.6%
531	Real estate	2,577	1.9%
532	Rental and leasing services	1,004	1.9%
533	Lessors of nonfinancial intangible assets	42	1.9%
541	Professional and technical services	15,688	2.3%
551	Management of companies / enterprises	1,554	1.3%
561	Administrative and support services	23,735	4.3%
562	Waste mgmt and remediation services	540	4.3%
611	Educational services	7,082	2.5%
621	Ambulatory health care services	10,559	2.6%
622	Hospitals	6,160	2.6%
623	Nursing and residential care facilities	4,176	2.6%
624	Social assistance	4,326	2.6%
711	Performing arts and spectator sports	1,580	1.8%
712	Museums, historical sites, zoos, and parks	304	1.8%
713	Amusements, gambling, and recreation	1,059	1.8%
721	Accommodation	3,450	3.2%
722	Food services and drinking places	22,183	3.2%
811	Repair and maintenance	638	0.9%
812	Personal and laundry services	1,792	1.5%
813	Membership associations and orgs	1,419	1.3%

Source: Estimates by LAEDC

Exhibit A-5
Occupational Growth in the City of Los Angeles 2011-2017 with Job Requirements

SOC Code	Occupational Title	New Openings	Replacement Needs	Total Openings	Entry Level		On-the-Job Training to Attain Competency	Median Annual Wage
					Educ-ation	Work Exp		
11-1011	Chief Executives	424	547	971	3	>5 years	None	N/A
11-1021	General and Operations Managers	2,895	2,598	5,493	4	1-5 years	None	113,956
11-1031	Legislators	71	116	187	3	1-5 years	None	61,935
11-2011	Advertising and Promotions Managers	60	88	149	3	1-5 years	None	108,607
11-2021	Marketing Managers	261	387	648	3	1-5 years	None	124,236
11-2022	Sales Managers	388	691	1,079	3	1-5 years	None	109,024
11-2031	Public Relations and Fundraising Managers	87	130	217	3	1-5 years	None	98,395
11-3011	Administrative Services Managers	444	537	981	7	1-5 years	None	91,563
11-3021	Computer and Information Systems Managers	497	385	882	3	>5 years	None	133,082
11-3031	Financial Managers	748	657	1,405	3	>5 years	None	124,130
11-3051	Industrial Production Managers	97	193	290	3	1-5 years	None	93,595
11-3061	Purchasing Managers	60	131	191	3	>5 years	None	107,584
11-3071	Transportation, Storage, and Distribution Managers	79	165	244	7	>5 years	None	84,739
11-3111	Compensation and Benefits Managers	47	55	103	3	1-5 years	None	109,907
11-3121	Human Resources Managers	143	175	318	3	1-5 years	None	111,163
11-3131	Training and Development Managers	43	50	93	3	1-5 years	None	104,410
11-9013	Farmers, Ranchers, and Other Agricultural	-2	18	17	7	>5 years	None	N/A
11-9021	Construction Managers	333	69	402	4	>5 years	None	103,141
11-9031	Education Administrators, Preschool and Childcare	75	84	159	3	1-5 years	None	51,882
11-9032	Education Administrators, Elementary and	150	165	314	2	1-5 years	None	105,636
11-9039	Education Administrators, All Other	50	51	101	3	1-5 years	None	73,508
11-9041	Architectural and Engineering Managers	244	283	527	3	>5 years	None	141,356
11-9051	Food Service Managers	395	231	626	7	1-5 years	None	47,011
11-9081	Lodging Managers	57	46	103	7	1-5 years	None	49,371
11-9111	Medical and Health Services Managers	549	521	1,071	3	None	None	100,234
11-9121	Natural Sciences Managers	68	223	291	3	>5 years	None	133,118
11-9141	Property, Real Estate, and Community Association	282	303	585	7	1-5 years	None	64,775
11-9151	Social and Community Service Managers	230	249	478	3	1-5 years	None	69,376
11-9161	Emergency Management Directors	20	25	45	3	1-5 years	LT OJT	98,952
11-9199	Managers, All Other	376	489	865	7	1-5 years	None	126,760
13-1011	Agents and Business Managers of Artists,	63	57	120	3	1-5 years	None	115,899
13-1021	Buyers and Purchasing Agents, Farm Products	9	13	21	7	None	LT OJT	66,364
13-1022	Wholesale and Retail Buyers, Except Farm	80	176	256	7	None	LT OJT	50,174
13-1023	Purchasing Agents, Except Wholesale, Retail, and	276	481	757	7	None	LT OJT	60,511
13-1031	Claims Adjusters, Examiners, and Investigators	370	440	809	7	None	LT OJT	63,142
13-1041	Compliance Officers	270	225	495	3	None	MT OJT	71,806
13-1051	Cost Estimators	277	180	456	3	None	None	65,094
13-1078*	Human Resources, Training, and Labor Relations	101	128	229	3	None	None	69,732
13-1081	Logisticians	97	141	238	3	1-5 years	None	78,249
13-1111	Management Analysts	1,022	853	1,874	3	1-5 years	None	84,476
13-1121	Meeting, Convention, and Event Planners	141	119	260	3	<1 year	None	49,853
13-1141	Compensation, Benefits, and Job Analysis	186	168	354	3	None	None	58,934
13-1151	Training and Development Specialists	344	271	615	3	None	None	61,464
13-1161	Market Research Analysts and Marketing	642	831	1,473	3	None	None	58,174
13-1199	Business Operations Specialists, All Other	1,351	1,524	2,875	7	<1 year	LT OJT	65,220
13-2011	Accountants and Auditors	1,991	2,061	4,052	3	None	None	68,193
13-2021	Appraisers and Assessors of Real Estate	122	148	270	7	None	APP	78,148
13-2031	Budget Analysts	107	143	250	3	None	None	76,782

Education: 1=Doctoral or professional degree; 2=Master's degree; 3=Bachelor's degree; 4=Associate's degree; 5=Postsecondary non-degree award; 6=Some college, no degree; 7=High school diploma or equivalent; 8=Less than high school; On-the-Job Training: I/R=Internship/Residency; APP=Apprenticeship; LT OJT=Long-term on-the-job training (more than one year); MT OJT=Moderate-term on-the-job training (1-12 months); ST OJT=Short-term on-the-job training (1 month or less)
Sources: Estimates by LAEDC; Education and skills requirements from BLS

Exhibit A-5 (cont'd)

Occupational Growth in the City of Los Angeles 2011-2017 with Job Requirements

SOC Code	Occupational Title	New Openings	Replacement Needs	Total Openings	Entry Level		On-the-Job Training to Attain Competency	Median Annual Wage
					Educ-ation	Work Exp		
13-2041	Credit Analysts	87	82	169	3	None	None	71,496
13-2051	Financial Analysts	384	363	747	3	None	None	86,197
13-2052	Personal Financial Advisors	377	164	541	3	None	None	58,137
13-2053	Insurance Underwriters	140	166	306	3	None	MT OJT	71,260
13-2071	Credit Counselors	39	39	78	3	None	MT OJT	45,416
13-2072	Loan Officers	462	443	906	7	None	MT OJT	71,294
13-2081	Tax Examiners and Collectors, and Revenue	94	204	298	3	None	MT OJT	N/A
13-2082	Tax Preparers	132	126	258	7	None	MT OJT	33,479
13-2099	Financial Specialists, All Other	233	254	488	3	None	MT OJT	60,850
15-1111	Computer and Information Research Scientists	27	35	61	1	None	None	122,443
15-1121	Computer Systems Analysts	935	894	1,829	3	None	None	86,114
15-1131	Computer Programmers	596	643	1,239	3	None	None	85,490
15-1132	Software Developers, Applications	991	493	1,484	3	None	None	94,358
15-1133	Software Developers, Systems Software	587	325	912	3	None	None	108,273
15-1141	Database Administrators	172	140	312	3	1-5 years	None	77,956
15-1142	Network and Computer Systems Administrators	535	450	985	3	None	None	76,433
15-1150	Computer Support Specialists	91	162	253	6	None	MT OJT	51,461
15-1179*	Information Security Analysts, Web Developers,	23	23	46	3	1-5 years	None	75,803
15-1799*	Computer Occupations, All Other	7	50	57	3	None	None	77,806
15-2011	Actuaries	35	87	122	3	None	LT OJT	91,289
15-2021	Mathematicians	3	14	17	2	None	None	106,283
15-2031	Operations Research Analysts	117	195	312	3	None	None	81,974
15-2041	Statisticians	35	93	128	2	None	None	77,453
17-1011	Architects, Except Landscape and Naval	180	161	340	3	None	I/R	85,436
17-1012	Landscape Architects	42	37	78	3	None	I/R	69,845
17-1021	Cartographers and Photogrammetrists	19	22	41	3	None	None	78,249
17-1022	Surveyors	98	104	202	3	None	None	90,039
17-2011	Aerospace Engineers	60	114	174	3	None	None	117,348
17-2031	Biomedical Engineers	23	28	50	3	None	None	87,399
17-2041	Chemical Engineers	44	71	115	3	None	None	118,325
17-2051	Civil Engineers	682	740	1,421	3	None	None	91,931
17-2071	Electrical Engineers	201	275	476	3	None	None	100,091
17-2072	Electronics Engineers, Except Computer	130	266	396	3	None	None	101,548
17-2081	Environmental Engineers	100	113	213	3	None	None	82,586
17-2111	Health and Safety Engineers, Except Mining Safety	42	48	90	3	None	None	93,334
17-2112	Industrial Engineers	166	255	421	3	None	None	92,369
17-2131	Materials Engineers	18	35	52	3	None	None	99,487
17-2141	Mechanical Engineers	258	474	733	3	None	None	89,032
17-2171	Petroleum Engineers	12	27	39	3	None	None	96,034
17-2199	Engineers, All Other	168	212	380	3	None	None	95,651
17-3011	Architectural and Civil Drafters	180	151	330	4	None	None	49,869
17-3013	Mechanical Drafters	65	64	129	4	None	None	52,638
17-3019	Drafters, All Other	24	22	46	4	None	None	53,832
17-3021	Aerospace Engineering and Operations	8	14	21	4	None	None	66,036
17-3022	Civil Engineering Technicians	159	163	322	4	None	None	64,360
17-3023	Electrical and Electronics Engineering Technicians	196	233	430	4	None	None	62,997
17-3024	Electro-Mechanical Technicians	17	21	38	4	None	None	49,129
17-3025	Environmental Engineering Technicians	45	43	88	4	None	None	58,584
17-3026	Industrial Engineering Technicians	43	63	107	4	None	None	48,775

Education: 1=Doctoral or professional degree; 2=Master's degree; 3=Bachelor's degree; 4=Associate's degree; 5=Postsecondary non-degree award; 6=Some college, no degree; 7=High school diploma or equivalent; 8=Less than high school; On-the-Job Training: I/R=Internship/Residency; APP=Apprenticeship; LT OJT=Long-term on-the-job training (more than one year); MT OJT=Moderate-term on-the-job training (1-12 months); ST OJT=Short-term on-the-job training (1 month or less)

Sources: Estimates by LAEDC; Education and skills requirements from BLS

Exhibit A-5 (cont'd)

Occupational Growth in the City of Los Angeles 2011-2017 with Job Requirements

SOC Code	Occupational Title	New Openings	Replacement Needs	Total Openings	Entry Level		On-the-Job Training to Attain Competency	Median Annual Wage
					Educ-ation	Work Exp		
17-3027	Mechanical Engineering Technicians	54	57	111	4	None	None	55,206
17-3029	Engineering Technicians, Except Drafters, All Other	93	116	209	4	None	None	62,294
17-3031	Surveying and Mapping Technicians	91	84	176	7	None	MT OJT	65,074
19-1012	Food Scientists and Technologists	12	30	42	3	None	None	59,093
19-1021	Biochemists and Biophysicists	46	45	90	1	None	None	69,912
19-1022	Microbiologists	31	33	63	3	None	None	74,472
19-1023	Zoologists and Wildlife Biologists	19	30	49	3	None	None	76,653
19-1029	Biological Scientists, All Other	26	46	72	1	None	None	77,630
19-1042	Medical Scientists, Except Epidemiologists	161	42	202	1	None	None	72,294
19-2011	Astronomers	2	2	4	1	None	None	96,977
19-2012	Physicists	25	36	62	1	None	None	92,915
19-2031	Chemists	134	205	339	3	None	None	69,724
19-2032	Materials Scientists	11	18	29	3	None	None	78,972
19-2041	Environmental Scientists and Specialists, Including	200	336	536	3	None	None	74,825
19-2042	Geoscientists, Except Hydrologists and	39	68	107	3	None	None	84,285
19-3011	Economists	26	46	72	3	None	None	104,988
19-3022	Survey Researchers	33	40	73	3	None	None	45,662
19-3031	Clinical, Counseling, and School Psychologists	194	297	491	1	None	I/R	79,140
19-3039	Psychologists, All Other	6	17	23	2	None	I/R	104,754
19-3051	Urban and Regional Planners	138	226	363	2	None	None	77,053
19-4011	Agricultural and Food Science Technicians	31	66	97	4	None	None	29,969
19-4021	Biological Technicians	107	183	290	3	None	None	47,987
19-4031	Chemical Technicians	100	69	169	4	None	MT OJT	43,179
19-4041	Geological and Petroleum Technicians	11	25	35	4	None	MT OJT	56,342
19-4061	Social Science Research Assistants	37	66	104	4	None	None	44,726
19-4091	Environmental Science and Protection Technicians,	66	139	205	4	None	MT OJT	52,550
19-4092	Forensic Science Technicians	41	109	150	3	None	MT OJT	N/A
19-4093	Forest and Conservation Technicians	19	184	202	4	None	None	N/A
19-4099	Life, Physical, and Social Science Technicians, All	84	170	254	4	None	MT OJT	45,355
21-1011	Substance Abuse and Behavioral Disorder	159	143	302	7	None	MT OJT	30,201
21-1012	Educational, Guidance, School, and Vocational	218	197	415	2	None	None	73,647
21-1013	Marriage and Family Therapists	60	54	113	2	None	I/R	48,951
21-1014	Mental Health Counselors	241	214	454	2	None	I/R	40,320
21-1015	Rehabilitation Counselors	164	139	303	2	None	None	30,901
21-1019	Counselors, All Other	71	83	154	2	None	None	41,163
21-1021	Child, Family, and School Social Workers	480	603	1,083	3	None	None	51,398
21-1022	Healthcare Social Workers	273	262	534	2	None	None	57,069
21-1023	Mental Health and Substance Abuse Social	236	244	479	3	None	None	46,717
21-1029	Social Workers, All Other	231	349	580	3	None	None	N/A
21-1091	Health Educators	109	119	228	3	None	None	43,796
21-1092	Probation Officers and Correctional Treatment	278	393	671	3	None	ST OJT	N/A
21-1093	Social and Human Service Assistants	712	732	1,444	7	None	ST OJT	35,530
21-1798*	Community and Social Service Specialists, All	118	170	289	3	None	None	36,876
21-2011	Clergy	61	58	119	3	None	MT OJT	62,891
21-2021	Directors, Religious Activities and Education	20	25	46	3	1-5 years	None	62,145
23-1011	Lawyers	1,225	1,167	2,392	1	None	None	156,963
23-1012	Judicial Law Clerks	51	50	101	1	None	None	N/A
23-1021	Administrative Law Judges, Adjudicators, and	24	35	59	3	1-5 years	MT OJT	N/A
23-1022	Arbitrators, Mediators, and Conciliators	15	15	30	3	1-5 years	MT OJT	128,742

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Sources: Estimates by LAEDC; Education and skills requirements from BLS

Exhibit A-5 (cont'd)

Occupational Growth in the City of Los Angeles 2011-2017 with Job Requirements

SOC Code	Occupational Title	New Openings	Replacement Needs	Total Openings	Entry Level		On-the-Job Training to Attain Competency	Median Annual Wage
					Educ-ation	Work Exp		
23-1023	Judges, Magistrate Judges, and Magistrates	37	46	83	1	>5 years	ST OJT	N/A
23-2011	Paralegals and Legal Assistants	559	369	928	4	None	None	57,755
23-2091	Court Reporters	73	54	126	5	None	ST OJT	N/A
23-2093	Title Examiners, Abstractors, and Searchers	94	61	156	7	None	ST OJT	43,716
23-2099	Legal Support Workers, All Other	80	74	154	7	None	ST OJT	57,196
25-1011	Business Teachers, Postsecondary	54	33	87	1	None	None	115,563
25-1021	Computer Science Teachers, Postsecondary	22	14	36	1	None	None	102,831
25-1022	Mathematical Science Teachers, Postsecondary	35	22	57	1	None	None	100,535
25-1031	Architecture Teachers, Postsecondary	5	3	8	1	None	None	80,426
25-1032	Engineering Teachers, Postsecondary	22	14	36	1	None	None	111,303
25-1051	Atmospheric, Earth, Marine, and Space Sciences	7	5	12	1	None	None	111,585
25-1052	Chemistry Teachers, Postsecondary	13	8	21	1	None	None	91,426
25-1054	Physics Teachers, Postsecondary	9	6	15	1	None	None	99,537
25-1061	Anthropology and Archeology Teachers,	4	2	6	1	None	None	92,698
25-1062	Area, Ethnic, and Cultural Studies Teachers,	6	4	10	1	None	None	77,426
25-1063	Economics Teachers, Postsecondary	9	6	15	1	None	None	96,610
25-1065	Political Science Teachers, Postsecondary	11	7	18	1	None	None	87,340
25-1066	Psychology Teachers, Postsecondary	25	16	41	1	None	None	89,131
25-1067	Sociology Teachers, Postsecondary	11	7	18	1	None	None	95,570
25-1069	Social Sciences Teachers, Postsecondary, All	7	4	11	1	None	None	157,742
25-1072	Nursing Instructors and Teachers, Postsecondary	44	28	72	2	None	None	86,912
25-1081	Education Teachers, Postsecondary	41	25	66	1	None	None	70,437
25-1082	Library Science Teachers, Postsecondary	3	2	5	1	None	None	85,595
25-1111	Criminal Justice and Law Enforcement Teachers,	9	6	15	1	None	None	89,058
25-1112	Law Teachers, Postsecondary	10	6	16	1	None	None	166,230
25-1113	Social Work Teachers, Postsecondary	6	4	10	1	None	None	85,014
25-1121	Art, Drama, and Music Teachers, Postsecondary	61	38	99	1	None	None	83,036
25-1122	Communications Teachers, Postsecondary	20	12	32	1	None	None	91,889
25-1123	English Language and Literature Teachers,	48	29	77	1	None	None	99,714
25-1124	Foreign Language and Literature Teachers,	20	12	31	1	None	None	66,627
25-1125	History Teachers, Postsecondary	15	9	25	1	None	None	94,663
25-1126	Philosophy and Religion Teachers, Postsecondary	42	40	82	1	None	None	84,467
25-1191	Graduate Teaching Assistants	78	48	126	2	None	None	58,913
25-1192	Home Economics Teachers, Postsecondary	3	2	5	2	None	None	84,012
25-1193	Recreation and Fitness Studies Teachers,	13	8	21	2	None	None	95,585
25-1194	Vocational Education Teachers, Postsecondary	79	50	129	3	1-5 years	None	73,874
25-1199	Postsecondary Teachers, All Other	133	82	215	2	None	None	67,017
25-2011	Preschool Teachers, Except Special Education	521	535	1,055	4	None	None	29,557
25-2012	Kindergarten Teachers, Except Special Education	112	112	224	3	None	I/R	66,455
25-2021	Elementary School Teachers, Except Special	909	764	1,673	3	None	I/R	70,230
25-2022	Middle School Teachers, Except Special and	414	349	763	3	None	I/R	65,434
25-2023	Career/Technical Education Teachers, Middle	12	10	22	3	1-5 years	I/R	66,312
25-2031	Secondary School Teachers, Except Special and	650	690	1,340	3	None	I/R	64,087
25-2032	Career/Technical Education Teachers, Secondary	60	67	127	3	1-5 years	I/R	70,403
25-2054	Special Education Teachers, Secondary School	89	101	189	3	None	I/R	64,962
25-3011	Adult Basic and Secondary Education and Literacy	56	35	91	3	None	I/R	76,782
25-3021	Self-Enrichment Education Teachers	179	131	310	7	1-5 years	None	49,573
25-3999	Teachers and Instructors, All Other	18	45	63	3	None	None	46,083
25-4012	Curators	18	29	47	2	None	None	67,860

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Sources: Estimates by LAEDC; Education and skills requirements from BLS

Exhibit A-5 (cont'd)

Occupational Growth in the City of Los Angeles 2011-2017 with Job Requirements

SOC Code	Occupational Title	New Openings	Replacement Needs	Total Openings	Entry Level		On-the-Job Training to Attain Competency	Median Annual Wage
					Educ-ation	Work Exp		
25-4013	Museum Technicians and Conservators	16	27	43	3	None	None	47,104
25-4021	Librarians	198	282	480	2	None	None	67,982
25-4031	Library Technicians	171	431	601	5	None	None	41,357
25-9011	Audio-Visual and Multimedia Collections Specialists	7	6	12	3	1-5 years	None	42,650
25-9031	Instructional Coordinators	121	120	241	2	>5 years	None	61,665
25-9041	Teacher Assistants	1,009	905	1,915	7	None	ST OJT	29,398
25-9099	Education, Training, and Library Workers, All Other	73	68	141	3	None	None	27,367
27-1011	Art Directors	122	118	240	3	1-5 years	None	105,802
27-1012	Craft Artists	12	16	28	7	None	LT OJT	63,364
27-1013	Fine Artists, Including Painters, Sculptors, and	95	88	183	7	None	LT OJT	55,295
27-1014	Multi-Media Artists and Animators	309	261	570	3	None	MT OJT	81,166
27-1019	Artists and Related Workers, All Other	18	22	40	7	None	LT OJT	54,728
27-1021	Commercial and Industrial Designers	40	59	99	3	None	None	54,385
27-1022	Fashion Designers	26	126	152	7	None	LT OJT	65,465
27-1023	Floral Designers	-20	107	87	7	None	ST OJT	28,828
27-1024	Graphic Designers	361	591	952	3	None	None	56,078
27-1025	Interior Designers	62	99	161	3	None	None	58,826
27-1026	Merchandise Displayers and Window Trimmers	96	173	269	7	None	MT OJT	31,954
27-1027	Set and Exhibit Designers	79	93	171	3	None	None	62,456
27-1029	Designers, All Other	21	29	50	3	None	None	43,282
27-2012	Producers and Directors	1,218	1,338	2,556	3	1-5 years	None	121,461
27-2022	Coaches and Scouts	176	204	380	7	None	LT OJT	40,473
27-2023	Umpires, Referees, and Other Sports Officials	30	47	77	7	None	LT OJT	21,392
27-2041	Music Directors and Composers	40	44	84	3	1-5 years	None	59,317
27-2042	Musicians and Singers	142	181	323	7	None	LT OJT	N/A
27-3012	Public Address System and Other Announcers	23	30	53	7	None	ST OJT	21,675
27-3022	Reporters and Correspondents	68	204	273	3	None	None	41,261
27-3031	Public Relations Specialists	368	500	867	3	None	MT OJT	63,572
27-3041	Editors	194	308	502	3	1-5 years	None	56,142
27-3042	Technical Writers	72	68	140	3	1-5 years	ST OJT	78,710
27-3043	Writers and Authors	171	194	365	3	None	LT OJT	75,014
27-3091	Interpreters and Translators	92	114	206	3	None	LT OJT	58,016
27-3099	Media and Communication Workers, All Other	233	226	459	7	None	ST OJT	57,470
27-4011	Audio and Video Equipment Technicians	362	405	767	5	None	MT OJT	47,298
27-4012	Broadcast Technicians	148	256	404	4	None	ST OJT	44,631
27-4014	Sound Engineering Technicians	223	227	450	5	None	ST OJT	69,167
27-4021	Photographers	132	61	192	7	None	LT OJT	45,015
27-4031	Camera Operators, Television, Video, and Motion	215	151	367	3	None	MT OJT	51,664
27-4032	Film and Video Editors	427	266	693	3	1-5 years	None	97,339
27-4099	Media and Communication Equipment Workers, All	145	97	242	7	None	MT OJT	80,589
29-1011	Chiropractors	55	40	96	1	None	None	72,821
29-1021	Dentists, General	193	215	408	1	None	I/R	120,922
29-1029	Dentists, All Other Specialists	6	10	16	1	None	I/R	157,024
29-1031	Dietitians and Nutritionists	104	155	259	3	None	I/R	67,772
29-1041	Optometrists	52	70	122	1	None	None	87,878
29-1051	Pharmacists	325	453	777	1	None	None	129,577
29-1062	Family and General Practitioners	221	163	384	1	None	I/R	164,003
29-1063	Internists, General	87	63	150	1	None	I/R	186,607
29-1064	Obstetricians and Gynecologists	41	29	70	1	None	I/R	N/A

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Exhibit A-5 (cont'd)

Occupational Growth in the City of Los Angeles 2011-2017 with Job Requirements

SOC Code	Occupational Title	New Openings	Replacement Needs	Total Openings	Entry Level		On-the-Job Training to Attain Competency	Median Annual Wage
					Educ-ation	Work Exp		
29-1065	Pediatricians, General	59	42	102	1	None	I/R	155,837
29-1066	Psychiatrists	63	60	123	1	None	I/R	N/A
29-1067	Surgeons	85	62	148	1	None	I/R	N/A
29-1069	Physicians and Surgeons, All Other	542	422	964	1	None	I/R	>\$187,20
29-1071	Physician Assistants	160	108	268	2	None	None	97,666
29-1081	Podiatrists	17	14	30	1	None	I/R	93,995
29-1111*	Registered Nurses	264	375	639	4	None	None	85,178
29-1122	Occupational Therapists	191	136	328	2	None	None	87,868
29-1123	Physical Therapists	370	159	528	1	None	None	87,316
29-1124	Radiation Therapists	36	25	61	4	None	None	89,085
29-1125	Recreational Therapists	32	49	81	3	None	None	62,545
29-1126	Respiratory Therapists	226	158	383	4	None	None	67,606
29-1127	Speech-Language Pathologists	157	112	269	2	None	None	86,209
29-1128	Therapists, All Other	13	11	24	2	None	None	43,785
29-1131	Veterinarians	118	98	216	1	None	None	88,170
29-1181	Audiologists	19	5	23	1	None	None	74,246
29-1199	Health Diagnosing and Treating Practitioners, All	32	31	63	2	None	None	54,076
29-2011	Medical and Clinical Laboratory Technologists	298	218	515	3	None	None	79,046
29-2012	Medical and Clinical Laboratory Technicians	301	215	516	4	None	None	36,384
29-2021	Dental Hygienists	382	276	658	4	None	None	100,378
29-2031	Cardiovascular Technologists and Technicians	98	55	152	4	None	None	54,940
29-2037	Radiologic Technologists and Technicians	5	8	13	4	None	None	64,603
29-2041	Emergency Medical Technicians and Paramedics	353	272	625	5	None	None	27,477
29-2051	Dietetic Technicians	47	31	78	7	None	MT OJT	31,463
29-2052	Pharmacy Technicians	380	380	760	7	None	MT OJT	37,115
29-2053	Psychiatric Technicians	112	79	190	5	None	ST OJT	50,272
29-2054	Respiratory Therapy Technicians	25	16	42	4	None	MT OJT	46,181
29-2055	Surgical Technologists	190	118	308	5	None	None	46,658
29-2056	Veterinary Technologists and Technicians	176	130	306	4	None	None	35,146
29-2061	Licensed Practical and Licensed Vocational Nurses	1,408	1,377	2,785	5	None	None	50,213
29-2071	Medical Records and Health Information	354	267	621	5	None	None	35,860
29-2081	Opticians, Dispensing	92	83	175	7	None	LT OJT	33,504
29-2799	Health Technologists and Technicians, All Other	3	6	9	5	None	ST OJT	37,368
29-9011	Occupational Health and Safety Specialists	77	156	233	3	None	MT OJT	74,268
29-9012	Occupational Health and Safety Technicians	13	21	34	7	None	MT OJT	43,594
29-9091	Athletic Trainers	30	47	77	3	None	None	52,456
29-9799	Healthcare Practitioners and Technical Workers, All	2	6	7	3	None	None	69,639
31-1011	Home Health Aides	1,640	749	2,389	8	None	ST OJT	20,913
31-1012*	Nursing Aides, Orderlies, and Attendants	45	45	91	5	None	None	26,078
31-1013	Psychiatric Aides	106	50	156	7	None	ST OJT	25,464
31-2011	Occupational Therapy Assistants	55	31	86	4	None	None	64,758
31-2012	Occupational Therapy Aides	15	8	22	7	None	ST OJT	28,083
31-2021	Physical Therapist Assistants	137	78	215	4	None	None	57,548
31-2022	Physical Therapist Aides	94	52	146	7	None	MT OJT	26,426
31-9011	Massage Therapists	122	93	215	5	None	None	33,630
31-9091	Dental Assistants	601	466	1,067	5	None	None	32,631
31-9092	Medical Assistants	1,095	611	1,706	7	None	MT OJT	30,362
31-9093	Medical Equipment Preparers	99	59	157	7	None	MT OJT	31,548
31-9094	Medical Transcriptionists	172	85	258	5	None	None	45,017

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					Educ-ation	Work Exp		
31-9095	Pharmacy Aides	38	40	79	7	None	ST OJT	24,006
31-9096	Veterinary Assistants and Laboratory Animal	150	100	249	7	None	ST OJT	25,980
31-9799*	Healthcare Support Workers, All Other	5	15	20	7	None	ST OJT	35,247
33-1011	First-Line Supervisors of Correctional Officers	45	84	129	7	1-5 years	MT OJT	N/A
33-1012	First-Line Supervisors of Police and Detectives	100	241	341	7	1-5 years	MT OJT	N/A
33-1021	First-Line Supervisors of Fire Fighting and	73	226	299	5	1-5 years	None	N/A
33-1099	First-Line Supervisors of Protective Service	133	164	296	7	1-5 years	None	42,519
33-2011	Firefighters	810	1,452	2,261	5	None	LT OJT	N/A
33-2021	Fire Inspectors and Investigators	39	64	103	7	>5 years	MT OJT	104,452
33-3012	Correctional Officers and Jailers	878	971	1,849	7	None	MT OJT	N/A
33-3021	Detectives and Criminal Investigators	181	348	530	7	1-5 years	MT OJT	N/A
33-3041	Parking Enforcement Workers	53	85	138	7	None	ST OJT	39,294
33-3051	Police and Sheriff's Patrol Officers	1,734	3,396	5,131	7	None	MT OJT	N/A
33-3052	Transit and Railroad Police	7	10	17	7	None	ST OJT	56,986
33-9011	Animal Control Workers	51	82	132	7	None	MT OJT	N/A
33-9021	Private Detectives and Investigators	52	32	85	6	1-5 years	MT OJT	54,793
33-9031	Gaming Surveillance Officers and Gaming	17	17	35	7	None	ST OJT	34,399
33-9032	Security Guards	2,883	1,305	4,189	7	None	ST OJT	24,286
33-9092	Lifeguards, Ski Patrol, and Other Recreational	271	1,068	1,339	7	None	ST OJT	28,753
33-9093	Transportation Security Screeners (Federal Only)	2	38	40	7	None	MT OJT	38,039
33-9099	Protective Service Workers, All Other	160	615	776	7	None	ST OJT	38,583
35-1011	Chefs and Head Cooks	197	117	314	7	1-5 years	None	38,618
35-1012	First-Line Supervisors of Food Preparation and	1,760	1,191	2,951	7	1-5 years	None	27,326
35-2011	Cooks, Fast Food	1,138	731	1,869	8	None	ST OJT	18,684
35-2012	Cooks, Institution and Cafeteria	617	509	1,127	8	None	ST OJT	27,206
35-2014	Cooks, Restaurant	2,206	1,443	3,649	8	<1 year	MT OJT	22,428
35-2015	Cooks, Short Order	319	223	542	8	None	ST OJT	23,375
35-2019	Cooks, All Other	38	29	67	8	None	MT OJT	26,206
35-2021	Food Preparation Workers	1,473	1,932	3,404	8	None	ST OJT	19,148
35-3011	Bartenders	1,124	1,295	2,419	8	None	ST OJT	19,222
35-3021	Combined Food Preparation and Serving Workers,	6,103	5,344	11,447	8	None	ST OJT	18,953
35-3022	Counter Attendants, Cafeteria, Food Concession,	1,818	4,399	6,217	8	None	ST OJT	19,217
35-3031	Waiters and Waitresses	5,112	7,797	12,909	8	None	ST OJT	18,868
35-3041	Food Servers, Nonrestaurant	493	479	972	8	None	ST OJT	22,908
35-9011	Dining Room and Cafeteria Attendants and	845	991	1,836	8	None	ST OJT	18,753
35-9021	Dishwashers	1,085	1,555	2,640	8	None	ST OJT	18,891
35-9031	Hosts and Hostesses, Restaurant, Lounge, and	757	1,630	2,387	8	None	None	19,251
35-9099	Food Preparation and Serving Related Workers, All	75	139	214	8	None	ST OJT	18,646
37-1011	First-Line Supervisors of Housekeeping and	375	160	536	7	1-5 years	None	38,123
37-1012	First-Line Supervisors of Landscaping, Lawn	267	121	387	7	1-5 years	None	51,920
37-2011	Janitors and Cleaners, Except Maids and	4,468	2,652	7,120	8	None	ST OJT	22,747
37-2012	Maids and Housekeeping Cleaners	1,881	994	2,875	8	None	ST OJT	21,507
37-2019	Building Cleaning Workers, All Other	48	27	75	7	None	ST OJT	24,058
37-2021	Pest Control Workers	201	200	401	7	None	MT OJT	29,256
37-3011	Landscaping and Groundskeeping Workers	2,199	1,220	3,419	8	None	ST OJT	24,570
37-3012	Pesticide Handlers, Sprayers, and Applicators,	68	44	112	7	None	MT OJT	42,933
37-3013	Tree Trimmers and Pruners	128	60	188	7	None	ST OJT	28,571
39-1011	Gaming Supervisors	62	58	120	7	1-5 years	None	39,149
39-1021	First-Line Supervisors of Personal Service Workers	385	408	793	7	1-5 years	None	42,570

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Sources: Estimates by LAEDC; Education and skills requirements from BLS

Exhibit A-5 (cont'd)

Occupational Growth in the City of Los Angeles 2011-2017 with Job Requirements

SOC Code	Occupational Title	New Openings	Replacement Needs	Total Openings	Entry Level		On-the-Job Training to Attain Competency	Median Annual Wage
					Educ-ation	Work Exp		
39-2011	Animal Trainers	12	9	21	7	None	MT OJT	44,067
39-2021	Nonfarm Animal Caretakers	190	317	506	8	None	ST OJT	21,252
39-3011	Gaming Dealers	285	671	956	7	None	MT OJT	18,672
39-3012	Gaming and Sports Book Writers and Runners	35	84	118	7	None	ST OJT	39,135
39-3019	Gaming Service Workers, All Other	65	166	231	7	None	MT OJT	20,677
39-3021	Motion Picture Projectionists	227	320	547	8	None	ST OJT	26,202
39-3031	Ushers, Lobby Attendants, and Ticket Takers	1,272	2,654	3,926	8	None	ST OJT	20,873
39-3091	Amusement and Recreation Attendants	347	1,067	1,414	8	None	ST OJT	20,789
39-3093	Locker Room, Coatroom, and Dressing Room	29	87	116	7	None	ST OJT	19,076
39-3099	Entertainment Attendants and Related Workers, All	19	64	83	7	None	ST OJT	21,972
39-4011	Embalmers	7	24	31	5	None	ST OJT	41,947
39-5011	Barbers	19	21	40	5	None	None	23,426
39-5012	Hairdressers, Hairstylists, and Cosmetologists	520	620	1,141	5	None	None	21,188
39-5091	Makeup Artists, Theatrical and Performance	34	21	54	5	None	None	89,310
39-5092	Manicurists and Pedicurists	91	106	196	5	None	None	18,893
39-5094	Skincare Specialists	48	50	98	5	None	None	28,943
39-6011	Baggage Porters and Bellhops	80	96	175	7	None	ST OJT	21,042
39-6012	Concierges	48	49	97	7	None	MT OJT	29,568
39-7011	Tour Guides and Escorts	61	101	162	7	None	MT OJT	20,337
39-7012	Travel Guides	9	9	19	7	None	MT OJT	30,500
39-9011	Childcare Workers	889	1,125	2,014	7	None	ST OJT	24,194
39-9021	Personal Care Aides	1,829	521	2,350	8	None	ST OJT	21,261
39-9031	Fitness Trainers and Aerobics Instructors	220	194	414	7	None	ST OJT	39,718
39-9032	Recreation Workers	767	712	1,479	3	None	None	24,022
39-9041	Residential Advisors	131	183	314	6	<1 year	ST OJT	31,194
39-9099	Personal Care and Service Workers, All Other	90	97	187	7	None	ST OJT	22,909
41-1011	First-Line Supervisors of Retail Sales Workers	822	1,616	2,438	7	1-5 years	None	41,071
41-1012	First-Line Supervisors of Non-Retail Sales Workers	316	463	779	7	>5 years	None	66,994
41-2011	Cashiers	3,063	8,885	11,949	8	None	ST OJT	20,017
41-2021	Counter and Rental Clerks	576	794	1,369	8	None	ST OJT	22,771
41-2022	Parts Salespersons	41	352	393	8	None	MT OJT	29,559
41-2031	Retail Salespersons	2,668	7,335	10,003	8	None	ST OJT	21,849
41-3011	Advertising Sales Agents	342	601	944	7	None	MT OJT	52,892
41-3021	Insurance Sales Agents	519	425	944	7	None	MT OJT	58,605
41-3031	Securities, Commodities, and Financial Services	665	674	1,339	3	None	MT OJT	85,939
41-3041	Travel Agents	208	49	257	7	None	MT OJT	32,794
41-3099	Sales Representatives, Services, All Other	1,080	1,497	2,578	7	None	ST OJT	56,454
41-4011	Sales Representatives, Wholesale and	323	564	887	3	None	MT OJT	74,270
41-4012	Sales Representatives, Wholesale and	1,203	2,195	3,398	7	None	MT OJT	55,429
41-9011	Demonstrators and Product Promoters	140	165	305	7	None	ST OJT	23,762
41-9021	Real Estate Brokers	67	75	142	7	1-5 years	None	92,302
41-9022	Real Estate Sales Agents	288	323	611	7	None	LT OJT	34,481
41-9031	Sales Engineers	62	145	206	3	None	MT OJT	91,917
41-9041	Telemarketers	630	374	1,004	8	None	ST OJT	23,848
41-9091	Door-to-Door Sales Workers, News and Street	8	9	17	7	None	ST OJT	21,309
41-9799	Sales and Related Workers, All Other	8	13	21	7	None	MT OJT	36,378
43-1011	First-Line Supervisors of Office and Administrative	2,291	2,924	5,216	7	1-5 years	None	56,230
43-2011	Switchboard Operators, Including Answering	229	170	399	7	None	ST OJT	28,428
43-3011	Bill and Account Collectors	821	538	1,358	7	None	MT OJT	37,978

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Sources: Estimates by LAEDC; Education and skills requirements from BLS

Exhibit A-5 (cont'd)

Occupational Growth in the City of Los Angeles 2011-2017 with Job Requirements

SOC Code	Occupational Title	New Openings	Replacement Needs	Total Openings	Entry Level		On-the-Job Training to Attain Competency	Median Annual Wage
					Educ-ation	Work Exp		
43-3021	Billing and Posting Clerks	841	625	1,466	7	None	ST OJT	35,095
43-3031	Bookkeeping, Accounting, and Auditing Clerks	2,486	1,337	3,823	7	None	MT OJT	38,918
43-3041	Gaming Cage Workers	55	62	117	7	None	ST OJT	26,348
43-3051	Payroll and Timekeeping Clerks	298	289	587	7	None	MT OJT	43,787
43-3061	Procurement Clerks	73	195	268	7	None	MT OJT	38,788
43-3071	Tellers	910	1,349	2,259	7	None	ST OJT	26,033
43-4011	Brokerage Clerks	136	139	274	7	None	MT OJT	47,128
43-4031	Court, Municipal, and License Clerks	185	340	525	7	None	MT OJT	N/A
43-4041	Credit Authorizers, Checkers, and Clerks	69	90	159	7	None	ST OJT	40,342
43-4051	Customer Service Representatives	3,664	4,670	8,334	7	None	ST OJT	35,296
43-4061	Eligibility Interviewers, Government Programs	468	865	1,333	4	None	MT OJT	N/A
43-4071	File Clerks	316	346	661	7	None	ST OJT	27,478
43-4081	Hotel, Motel, and Resort Desk Clerks	448	543	992	7	None	ST OJT	22,388
43-4111	Interviewers, Except Eligibility and Loan	440	378	818	7	None	ST OJT	36,511
43-4121	Library Assistants, Clerical	194	522	716	7	None	ST OJT	24,712
43-4131	Loan Interviewers and Clerks	321	217	539	7	None	ST OJT	41,017
43-4141	New Accounts Clerks	93	95	188	7	None	ST OJT	32,558
43-4151	Order Clerks	220	379	599	7	None	ST OJT	30,144
43-4161	Human Resources Assistants, Except Payroll and	218	312	530	7	None	ST OJT	42,899
43-4171	Receptionists and Information Clerks	1,761	2,196	3,957	7	None	ST OJT	27,400
43-4181	Reservation and Transportation Ticket Agents and	269	363	632	7	None	ST OJT	35,049
43-4199	Information and Record Clerks, All Other	178	364	542	7	None	ST OJT	40,393
43-5011	Cargo and Freight Agents	110	244	354	7	None	ST OJT	40,620
43-5021	Couriers and Messengers	139	181	320	7	None	ST OJT	24,756
43-5031	Police, Fire, and Ambulance Dispatchers	158	188	346	7	None	MT OJT	54,264
43-5032	Dispatchers, Except Police, Fire, and Ambulance	226	238	463	7	None	MT OJT	36,392
43-5041	Meter Readers, Utilities	61	102	163	7	None	ST OJT	39,441
43-5051	Postal Service Clerks	1	2	2	7	None	ST OJT	53,834
43-5052	Postal Service Mail Carriers	3	10	13	7	None	ST OJT	56,296
43-5053	Postal Service Mail Sorters, Processors, and	1	1	2	7	None	ST OJT	53,824
43-5061	Production, Planning, and Expediting Clerks	371	555	925	7	None	MT OJT	47,683
43-5071	Shipping, Receiving, and Traffic Clerks	611	1,181	1,792	7	None	ST OJT	28,322
43-5081	Stock Clerks and Order Fillers	1,592	2,627	4,219	8	None	ST OJT	22,677
43-5111	Weighers, Measurers, Checkers, and Samplers,	86	168	254	7	None	ST OJT	24,071
43-6011	Executive Secretaries and Executive Administrative	1,431	923	2,354	7	1-5 years	None	50,259
43-6012	Legal Secretaries	462	273	735	7	None	MT OJT	51,075
43-6013	Medical Secretaries	1,010	491	1,500	7	None	MT OJT	33,483
43-6014	Secretaries and Administrative Assistants, Except	3,136	1,843	4,979	7	None	ST OJT	36,040
43-9011	Computer Operators	110	50	159	7	None	MT OJT	42,033
43-9021	Data Entry Keyers	393	273	666	7	None	MT OJT	30,237
43-9022	Word Processors and Typists	294	103	397	7	None	ST OJT	36,853
43-9031	Desktop Publishers	19	24	43	4	None	ST OJT	40,240
43-9041	Insurance Claims and Policy Processing Clerks	348	386	733	7	None	MT OJT	35,065
43-9051	Mail Clerks and Mail Machine Operators, Except	193	148	341	7	None	ST OJT	28,069
43-9061	Office Clerks, General	5,122	4,317	9,439	7	None	ST OJT	29,692
43-9071	Office Machine Operators, Except Computer	118	130	248	7	None	ST OJT	25,789
43-9081	Proofreaders and Copy Markers	13	13	26	3	None	MT OJT	45,244
43-9111	Statistical Assistants	15	12	26	3	None	None	42,284
43-9799	Office and Administrative Support Workers, All	111	166	277	7	None	ST OJT	26,386

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Sources: Estimates by LAEDC; Education and skills requirements from BLS

Exhibit A-5 (cont'd)

Occupational Growth in the City of Los Angeles 2011-2017 with Job Requirements

SOC Code	Occupational Title	New Openings	Replacement Needs	Total Openings	Entry Level		On-the-Job Training to Attain Competency	Median Annual Wage
					Educ-ation	Work Exp		
45-1011	First-Line Supervisors of Farming, Fishing, and	17	42	59	7	1-5 years	None	47,692
45-2011	Agricultural Inspectors	17	38	55	3	None	MT OJT	N/A
45-2021	Animal Breeders	0	1	1	7	1-5 years	ST OJT	N/A
45-2041	Graders and Sorters, Agricultural Products	16	46	61	8	None	ST OJT	18,804
45-2092	Farmworkers and Laborers, Crop, Nursery, and	27	349	376	8	None	ST OJT	19,156
45-2093	Farmworkers, Farm, Ranch, and Aquacultural	16	52	69	8	None	ST OJT	20,384
45-3011	Fishers and Related Fishing Workers	4	7	11	8	None	MT OJT	N/A
45-4011	Forest and Conservation Workers	46	67	113	7	None	MT OJT	16,900
47-1011	First-Line Supervisors of Construction Trades and	677	482	1,159	7	>5 years	None	72,615
47-2011	Boilermakers	24	28	51	7	None	APP	86,379
47-2021	Brickmasons and Blockmasons	108	49	156	7	None	APP	55,698
47-2022	Stonemasons	21	10	31	7	None	APP	49,394
47-2031	Carpenters	919	605	1,524	7	None	APP	52,267
47-2041	Carpet Installers	30	27	57	8	None	ST OJT	38,301
47-2042	Floor Layers, Except Carpet, Wood, and Hard Tiles	14	10	24	7	None	MT OJT	49,046
47-2044	Tile and Marble Setters	48	25	74	8	None	LT OJT	41,979
47-2051	Cement Masons and Concrete Finishers	242	89	331	8	None	MT OJT	46,838
47-2053	Terrazzo Workers and Finishers	6	2	9	7	None	APP	43,715
47-2061	Construction Laborers	1,446	305	1,751	8	None	ST OJT	37,396
47-2071	Paving, Surfacing, and Tamping Equipment	86	55	141	7	None	MT OJT	60,595
47-2073	Operating Engineers and Other Construction	443	315	758	7	None	MT OJT	78,266
47-2081	Drywall and Ceiling Tile Installers	145	90	235	8	None	MT OJT	49,210
47-2082	Tapers	30	18	48	8	None	MT OJT	45,410
47-2111	Electricians	978	765	1,743	7	None	APP	62,283
47-2121	Glaziers	71	74	145	7	None	APP	54,780
47-2141	Painters, Construction and Maintenance	368	238	606	8	None	MT OJT	36,240
47-2142	Paperhangers	7	2	9	7	None	MT OJT	38,939
47-2151	Pipelayers	67	62	128	7	None	ST OJT	45,998
47-2152	Plumbers, Pipefitters, and Steamfitters	619	493	1,112	7	None	APP	55,746
47-2161	Plasterers and Stucco Masons	39	17	57	8	None	LT OJT	43,450
47-2171	Reinforcing Iron and Rebar Workers	27	12	39	7	None	APP	43,560
47-2211	Sheet Metal Workers	194	101	295	7	None	APP	46,442
47-2221	Structural Iron and Steel Workers	95	50	144	7	None	APP	53,846
47-3011	Helpers--Brickmasons, Blockmasons,	48	28	76	8	None	ST OJT	26,921
47-3012	Helpers--Carpenters	53	41	95	8	None	ST OJT	31,618
47-3013	Helpers--Electricians	123	79	202	7	None	ST OJT	30,886
47-3014	Helpers--Painters, Paperhangers, Plasterers, and	21	12	34	8	None	ST OJT	23,385
47-3016	Helpers--Roofers	25	16	40	8	None	ST OJT	27,371
47-4011	Construction and Building Inspectors	194	318	512	7	>5 years	MT OJT	82,197
47-4021	Elevator Installers and Repairers	37	24	61	7	None	APP	102,933
47-4031	Fence Erectors	40	25	65	7	None	MT OJT	35,741
47-4041	Hazardous Materials Removal Workers	58	39	97	7	None	MT OJT	38,867
47-4051	Highway Maintenance Workers	100	170	270	7	None	MT OJT	60,347
47-4061	Rail-Track Laying and Maintenance Equipment	11	9	19	7	None	MT OJT	N/A
47-4071	Septic Tank Servicers and Sewer Pipe Cleaners	47	49	95	8	None	MT OJT	34,413
47-4799	Construction and Related Workers, All Other	12	27	39	7	None	MT OJT	40,444
47-5011	Derrick Operators, Oil and Gas	-2	5	4	8	None	ST OJT	67,226
47-5013	Service Unit Operators, Oil, Gas, and Mining	0	19	19	8	None	MT OJT	62,404
47-5071	Roustabouts, Oil and Gas	3	19	22	8	None	MT OJT	45,072

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Exhibit A-5 (cont'd)

Occupational Growth in the City of Los Angeles 2011-2017 with Job Requirements

SOC Code	Occupational Title	New Openings	Replacement Needs	Total Openings	Entry Level		On-the-Job Training to Attain Competency	Median Annual Wage
					Educ-ation	Work Exp		
49-1011	First-Line Supervisors of Mechanics, Installers, and	429	741	1,171	7	1-5 years	None	69,999
49-2011	Computer, Automated Teller, and Office Machine	65	186	251	5	None	None	41,127
49-2021	Radio, Cellular, and Tower Equipment Installers	3	16	19	4	None	MT OJT	61,200
49-2022	Telecommunications Equipment Installers and	40	245	285	5	None	MT OJT	56,610
49-2092	Electric Motor, Power Tool, and Related Repairers	14	9	23	5	None	LT OJT	40,066
49-2093	Electrical and Electronics Installers and Repairers,	9	22	30	5	None	LT OJT	68,340
49-2094	Electrical and Electronics Repairers, Commercial	47	86	133	5	None	LT OJT	55,667
49-2095	Electrical and Electronics Repairers, Powerhouse,	19	36	54	5	None	LT OJT	87,296
49-2096	Electronic Equipment Installers and Repairers,	1	16	17	5	None	ST OJT	28,663
49-2097	Electronic Home Entertainment Equipment	18	42	60	5	None	None	30,803
49-2098	Security and Fire Alarm Systems Installers	146	82	229	7	None	MT OJT	44,581
49-3011	Aircraft Mechanics and Service Technicians	133	413	546	5	None	None	58,411
49-3021	Automotive Body and Related Repairers	68	192	260	7	None	MT OJT	38,806
49-3023	Automotive Service Technicians and Mechanics	285	833	1,118	7	None	LT OJT	36,989
49-3031	Bus and Truck Mechanics and Diesel Engine	191	303	494	7	None	LT OJT	51,730
49-3042	Mobile Heavy Equipment Mechanics, Except	134	236	370	7	None	LT OJT	60,630
49-3043	Rail Car Repairers	17	40	57	7	None	LT OJT	43,955
49-3052	Motorcycle Mechanics	3	16	18	7	None	LT OJT	31,416
49-3053	Outdoor Power Equipment and Other Small Engine	24	36	60	7	None	MT OJT	36,638
49-3091	Bicycle Repairers	4	13	17	7	None	MT OJT	21,746
49-3093	Tire Repairers and Changers	25	99	123	7	None	MT OJT	29,686
49-9012	Control and Valve Installers and Repairers, Except	36	42	78	7	None	MT OJT	67,109
49-9021	Heating, Air Conditioning, and Refrigeration	422	204	627	5	None	LT OJT	54,365
49-9041	Industrial Machinery Mechanics	169	298	467	7	None	LT OJT	55,982
49-9043	Maintenance Workers, Machinery	61	98	159	7	None	MT OJT	36,752
49-9044	Millwrights	41	30	72	7	None	LT OJT	47,758
49-9051	Electrical Power-Line Installers and Repairers	81	138	219	7	None	LT OJT	86,428
49-9052	Telecommunications Line Installers and Repairers	73	178	251	7	None	LT OJT	54,041
49-9061	Camera and Photographic Equipment Repairers	5	7	12	4	None	LT OJT	44,189
49-9062	Medical Equipment Repairers	34	65	99	4	None	MT OJT	51,974
49-9069	Precision Instrument and Equipment Repairers, All	10	23	33	4	None	LT OJT	67,051
49-9071	Maintenance and Repair Workers, General	1,895	1,769	3,664	7	None	MT OJT	38,369
49-9091	Coin, Vending, and Amusement Machine Servicers	62	57	119	7	None	ST OJT	30,193
49-9094	Locksmiths and Safe Repairers	48	28	76	7	None	LT OJT	45,923
49-9097	Signal and Track Switch Repairers	3	4	7	5	None	MT OJT	N/A
49-9098	Helpers--Installation, Maintenance, and Repair	166	436	603	7	None	MT OJT	25,307
49-9799	Installation, Maintenance, and Repair Workers, All	20	30	49	7	None	MT OJT	34,690
51-1011	First-Line Supervisors of Production and Operating	418	435	853	5	1-5 years	None	51,218
51-2021	Coil Winders, Tapers, and Finishers	7	8	15	7	None	ST OJT	19,982
51-2022	Electrical and Electronic Equipment Assemblers	170	159	328	7	None	ST OJT	27,392
51-2023	Electromechanical Equipment Assemblers	33	33	66	7	None	ST OJT	23,844
51-2031	Engine and Other Machine Assemblers	13	22	35	7	None	ST OJT	40,784
51-2041	Structural Metal Fabricators and Fitters	57	66	123	7	None	MT OJT	35,676
51-2091	Fiberglass Laminators and Fabricators	3	12	15	7	None	MT OJT	29,333
51-2092	Team Assemblers	935	958	1,893	7	None	MT OJT	23,507
51-2099	Assemblers and Fabricators, All Other	348	294	642	7	None	MT OJT	25,925
51-3011	Bakers	148	241	389	8	None	LT OJT	25,453
51-3021	Butchers and Meat Cutters	109	241	350	8	None	LT OJT	26,605
51-3022	Meat, Poultry, and Fish Cutters and Trimmers	72	214	286	8	None	ST OJT	21,058

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Sources: Estimates by LAEDC; Education and skills requirements from BLS

Exhibit A-5 (cont'd)

Occupational Growth in the City of Los Angeles 2011-2017 with Job Requirements

SOC Code	Occupational Title	New Openings	Replacement Needs	Total Openings	Entry Level		On-the-Job Training to Attain Competency	Median Annual Wage
					Educ-ation	Work Exp		
51-3023	Slaughtering and Meat Packers	28	95	123	8	None	MT OJT	19,636
51-3091	Food and Tobacco Roasting, Baking, and Drying	10	27	37	8	None	MT OJT	30,043
51-3092	Food Batchmakers	48	128	176	7	<1 year	ST OJT	23,435
51-3093	Food Cooking Machine Operators and Tenders	18	45	63	7	<1 year	ST OJT	20,693
51-4011	Computer-Controlled Machine Tool Operators,	73	107	180	7	None	MT OJT	33,773
51-4012	Computer Numerically Controlled Machine Tool	18	18	36	7	None	MT OJT	53,835
51-4021	Extruding and Drawing Machine Setters, Operators,	46	47	93	7	None	MT OJT	30,117
51-4022	Forging Machine Setters, Operators, and Tenders,	12	18	30	7	None	MT OJT	31,793
51-4023	Rolling Machine Setters, Operators, and Tenders,	17	19	36	7	None	MT OJT	24,997
51-4031	Cutting, Punching, and Press Machine Setters,	153	60	213	7	None	MT OJT	28,554
51-4033	Grinding, Lapping, Polishing, and Buffing Machine	37	42	79	7	None	MT OJT	26,090
51-4034	Lathe and Turning Machine Tool Setters,	24	54	78	7	None	MT OJT	37,460
51-4041	Machinists	287	321	608	7	None	LT OJT	36,099
51-4051	Metal-Refining Furnace Operators and Tenders	4	6	9	7	None	MT OJT	40,153
51-4052	Pourers and Casters, Metal	2	3	5	7	None	MT OJT	28,944
51-4072	Molding, Coremaking, and Casting Machine	76	73	149	7	None	MT OJT	23,077
51-4081	Multiple Machine Tool Setters, Operators, and	41	62	102	7	None	MT OJT	31,798
51-4111	Tool and Die Makers	28	13	41	7	None	LT OJT	47,854
51-4121	Welders, Cutters, Solderers, and Brazers	240	382	622	7	<1 year	MT OJT	34,959
51-4122	Welding, Soldering, and Brazing Machine Setters,	24	55	80	7	None	MT OJT	35,408
51-4191	Heat Treating Equipment Setters, Operators, and	12	65	77	7	None	MT OJT	30,938
51-4192	Lay-Out Workers, Metal and Plastic	2	7	9	7	None	MT OJT	30,545
51-4193	Plating and Coating Machine Setters, Operators,	28	38	66	7	None	MT OJT	29,232
51-4194	Tool Grinders, Filers, and Sharpeners	6	3	10	7	None	MT OJT	29,151
51-4199	Metal Workers and Plastic Workers, All Other	21	8	29	7	None	MT OJT	28,252
51-5111	Prepress Technicians and Workers	21	60	81	5	None	None	39,436
51-5112	Printing Press Operators	88	216	304	7	None	MT OJT	34,118
51-5113	Print Binding and Finishing Workers	22	108	130	7	None	ST OJT	25,146
51-6011	Laundry and Dry-Cleaning Workers	332	308	640	8	None	ST OJT	20,309
51-6021	Pressers, Textile, Garment, and Related Materials	76	45	121	8	None	ST OJT	20,456
51-6031	Sewing Machine Operators	54	250	304	8	None	ST OJT	19,274
51-6041	Shoe and Leather Workers and Repairers	33	20	53	7	None	MT OJT	19,746
51-6051	Sewers, Hand	4	17	21	8	None	MT OJT	26,705
51-6052	Tailors, Dressmakers, and Custom Sewers	29	44	73	8	None	MT OJT	24,172
51-6062	Textile Cutting Machine Setters, Operators, and	1	104	104	7	None	MT OJT	21,182
51-6063	Textile Knitting and Weaving Machine Setters,	-28	23	-4	7	None	MT OJT	19,304
51-6064	Textile Winding, Twisting, and Drawing Out	-35	41	6	7	None	MT OJT	19,527
51-6091	Extruding and Forming Machine Setters, Operators,	4	18	22	7	None	MT OJT	30,035
51-6092	Fabric and Apparel Patternmakers	2	31	33	7	None	MT OJT	43,907
51-6093	Upholsterers	28	46	74	7	None	MT OJT	27,749
51-6099	Textile, Apparel, and Furnishings Workers, All	12	15	27	7	None	ST OJT	19,888
51-7011	Cabinetmakers and Bench Carpenters	107	109	216	7	None	MT OJT	27,403
51-7021	Furniture Finishers	14	20	34	7	None	ST OJT	27,475
51-7041	Sawing Machine Setters, Operators, and Tenders,	18	24	42	7	None	ST OJT	23,253
51-7042	Woodworking Machine Setters, Operators, and	39	19	58	7	None	ST OJT	23,586
51-7099	Woodworkers, All Other	4	8	12	7	None	MT OJT	19,878
51-8012	Power Distributors and Dispatchers	8	24	32	7	None	LT OJT	72,541
51-8013	Power Plant Operators	40	101	142	7	None	LT OJT	89,394
51-8021	Stationary Engineers and Boiler Operators	62	78	140	7	None	LT OJT	62,298

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Sources: Estimates by LAEDC; Education and skills requirements from BLS

Exhibit A-5 (cont'd)

Occupational Growth in the City of Los Angeles 2011-2017 with Job Requirements

SOC Code	Occupational Title	New Openings	Replacement Needs	Total Openings	Entry Level		On-the-Job Training to Attain Competency	Median Annual Wage
					Educ-ation	Work Exp		
51-8031	Water and Wastewater Treatment Plant and	216	369	585	7	None	LT OJT	74,433
51-8091	Chemical Plant and System Operators	53	77	130	7	None	LT OJT	46,282
51-8093	Petroleum Pump System Operators, Refinery	30	68	98	7	None	LT OJT	74,884
51-8099	Plant and System Operators, All Other	23	45	69	7	None	LT OJT	60,728
51-9011	Chemical Equipment Operators and Tenders	73	56	129	7	None	MT OJT	41,246
51-9012	Separating, Filtering, Clarifying, Precipitating, and	34	33	68	7	None	MT OJT	36,968
51-9021	Crushing, Grinding, and Polishing Machine Setters,	17	32	50	7	None	MT OJT	27,241
51-9022	Grinding and Polishing Workers, Hand	19	37	56	8	None	MT OJT	24,092
51-9023	Mixing and Blending Machine Setters, Operators,	126	193	319	7	None	MT OJT	30,846
51-9031	Cutters and Trimmers, Hand	10	39	49	8	None	ST OJT	22,167
51-9032	Cutting and Slicing Machine Setters, Operators,	33	50	83	7	None	ST OJT	28,408
51-9041	Extruding, Forming, Pressing, and Compacting	53	64	117	7	None	MT OJT	25,761
51-9051	Furnace, Kiln, Oven, Drier, and Kettle Operators	11	18	29	7	None	MT OJT	30,225
51-9061	Inspectors, Testers, Sorters, Samplers, and	404	611	1,015	7	None	MT OJT	34,469
51-9071	Jewelers and Precious Stone and Metal Workers	22	38	61	7	None	LT OJT	27,623
51-9081	Dental Laboratory Technicians	24	76	100	7	None	MT OJT	37,886
51-9082	Medical Appliance Technicians	10	26	36	7	None	LT OJT	32,988
51-9083	Ophthalmic Laboratory Technicians	26	60	85	7	None	MT OJT	29,737
51-9111	Packaging and Filling Machine Operators and	429	345	774	7	None	MT OJT	22,422
51-9121	Coating, Painting, and Spraying Machine Setters,	50	76	126	7	None	MT OJT	24,110
51-9122	Painters, Transportation Equipment	18	59	77	7	None	MT OJT	35,706
51-9123	Painting, Coating, and Decorating Workers	17	21	38	7	None	MT OJT	23,283
51-9141	Semiconductor Processors	21	36	57	4	None	MT OJT	32,840
51-9151	Photographic Process Workers and Processing	67	79	146	7	None	ST OJT	28,406
51-9191	Adhesive Bonding Machine Operators and Tenders	9	8	17	7	None	MT OJT	23,279
51-9192	Cleaning, Washing, and Metal Pickling Equipment	8	17	25	8	None	MT OJT	22,390
51-9194	Etchers and Engravers	2	3	5	7	None	MT OJT	27,723
51-9195	Molders, Shapers, and Casters, Except Metal and	30	46	75	7	None	LT OJT	24,980
51-9196	Paper Goods Machine Setters, Operators, and	-3	22	19	7	None	MT OJT	30,828
51-9197	Tire Builders	12	20	32	7	None	MT OJT	28,077
51-9198	Helpers--Production Workers	570	385	955	8	None	ST OJT	21,162
51-9399	Production Workers, All Other	0	0	0	7	None	MT OJT	30,887
53-1011	Aircraft Cargo Handling Supervisors	9	17	25	7	1-5 years	None	52,617
53-1021	First-Line Supervisors of Helpers, Laborers, and	158	252	410	7	1-5 years	None	45,457
53-1031	First-Line Supervisors of Transportation and	191	278	469	7	1-5 years	None	58,739
53-2011	Airline Pilots, Copilots, and Flight Engineers	114	406	520	3	1-5 years	MT OJT	111,593
53-2012	Commercial Pilots	51	155	206	5	None	None	81,809
53-2021	Air Traffic Controllers	2	55	57	4	None	LT OJT	N/A
53-2022	Airfield Operations Specialists	15	35	50	7	None	LT OJT	55,259
53-2031	Flight Attendants	154	285	438	7	None	MT OJT	36,021
53-3011	Ambulance Drivers and Attendants, Except	33	28	61	7	None	MT OJT	28,957
53-3021	Bus Drivers, Transit and Intercity	492	658	1,149	7	None	MT OJT	39,024
53-3022	Bus Drivers, School or Special Client	476	583	1,059	7	None	MT OJT	31,676
53-3031	Driver/Sales Workers	548	561	1,109	7	None	ST OJT	23,088
53-3032	Heavy and Tractor-Trailer Truck Drivers	982	1,305	2,286	7	1-5 years	ST OJT	41,482
53-3033	Light Truck or Delivery Services Drivers	700	1,125	1,825	7	None	ST OJT	29,793
53-3041	Taxi Drivers and Chauffeurs	199	146	345	8	None	ST OJT	22,159
53-3099	Motor Vehicle Operators, All Other	108	116	224	7	None	ST OJT	25,241
53-5021	Captains, Mates, and Pilots of Water Vessels	32	105	137	3	None	None	56,956

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Sources: Estimates by LAEDC; Education and skills requirements from BLS

Exhibit A-5 (cont'd)

Occupational Growth in the City of Los Angeles 2011-2017 with Job Requirements

SOC Code	Occupational Title	New Openings	Replacement Needs	Total Openings	Entry Level		On-the-Job Training to Attain Competency	Median Annual Wage
					Educ-ation	Work Exp		
53-6021	Parking Lot Attendants	240	399	639	8	None	ST OJT	19,677
53-6031	Automotive and Watercraft Service Attendants	56	171	227	8	None	ST OJT	21,546
53-6041	Traffic Technicians	21	38	59	8	None	ST OJT	N/A
53-6051	Transportation Inspectors	36	64	100	6	None	ST OJT	66,218
53-6061	Transportation Attendants, Except Flight Attendants	32	41	74	7	None	ST OJT	24,966
53-6099	Transportation Workers, All Other	53	142	195	7	None	ST OJT	N/A
53-7011	Conveyor Operators and Tenders	26	77	103	8	None	ST OJT	32,424
53-7032	Excavating and Loading Machine and Dragline	43	37	80	8	1-5 years	MT OJT	47,954
53-7051	Industrial Truck and Tractor Operators	422	783	1,205	8	<1 year	ST OJT	35,449
53-7061	Cleaners of Vehicles and Equipment	217	554	772	8	None	ST OJT	19,515
53-7062	Laborers and Freight, Stock, and Material Movers,	2,734	4,591	7,325	8	None	ST OJT	23,147
53-7063	Machine Feeders and Offbearers	57	72	129	8	None	ST OJT	23,412
53-7064	Packers and Packagers, Hand	780	1,182	1,962	8	None	ST OJT	19,614
53-7081	Refuse and Recyclable Material Collectors	186	217	403	8	None	ST OJT	43,259

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Sources: Estimates by LAEDC; Education and skills requirements from BLS

A2 City Council Districts of the City of Los Angeles

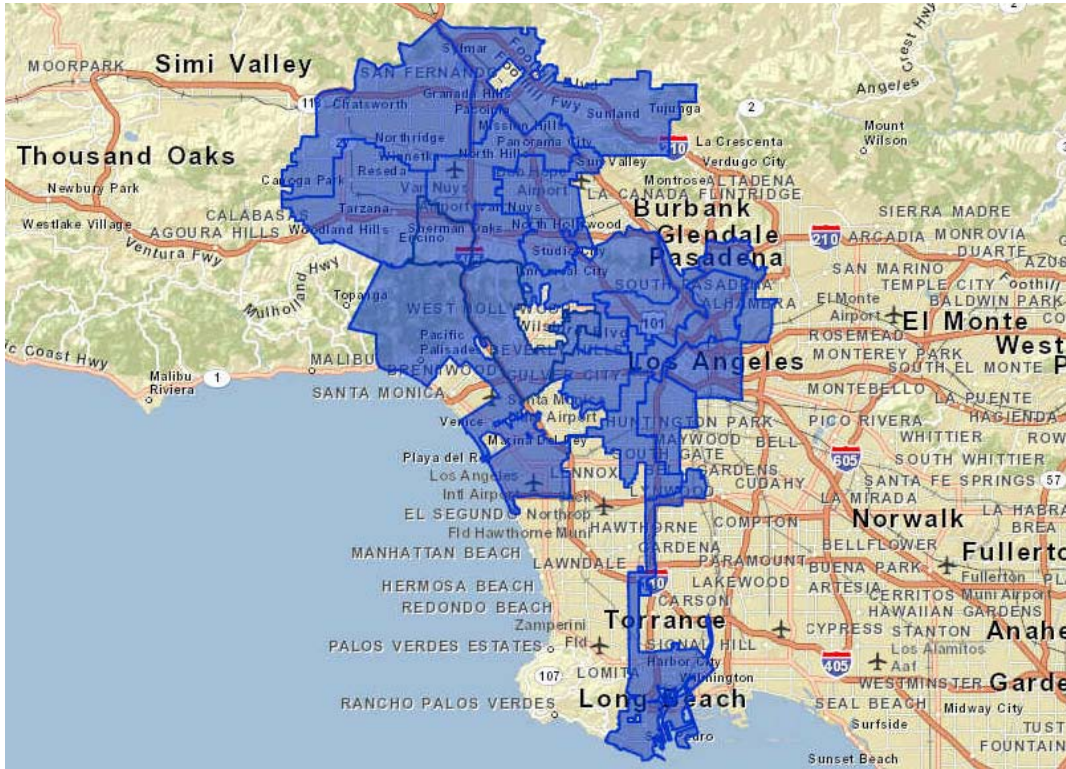


Exhibit A-6
Population and Income (2012)
Council Districts of the City of Los Angeles

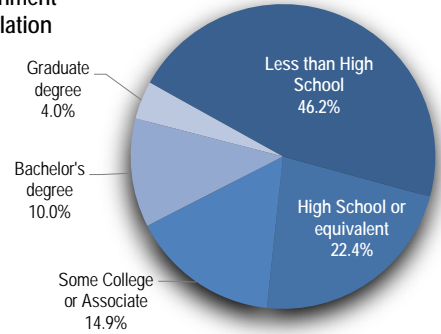
	Population	Households	Average Household Size	Median Household Income	Per Capita Income
Council District 1	250,465	81,027	3.05	\$ 26,152	\$ 13,968
Council District 2	260,065	96,059	2.69	45,043	24,622
Council District 3	261,577	90,765	2.86	57,257	28,341
Council District 4	249,385	123,375	2.01	57,299	43,754
Council District 5	257,137	114,464	2.13	67,812	46,549
Council District 6	261,291	72,083	3.59	39,474	15,387
Council District 7	261,832	69,326	3.73	51,737	17,846
Council District 8	247,082	73,169	3.35	30,704	13,507
Council District 9	250,862	57,781	4.18	26,472	10,630
Council District 10	261,526	57,240	2.68	30,557	17,657
Council District 11	254,902	115,990	2.15	73,937	47,433
Council District 12	261,586	87,705	2.92	77,062	32,854
Council District 13	250,653	96,176	2.54	27,977	17,173
Council District 14	250,382	80,727	2.85	33,958	19,692
Council District 15	254,637	77,366	3.25	39,866	17,860
City of Los Angeles	3,833,473	1,332,301	2.81	\$ 44,116	\$ 24,516

Sources: ESRI

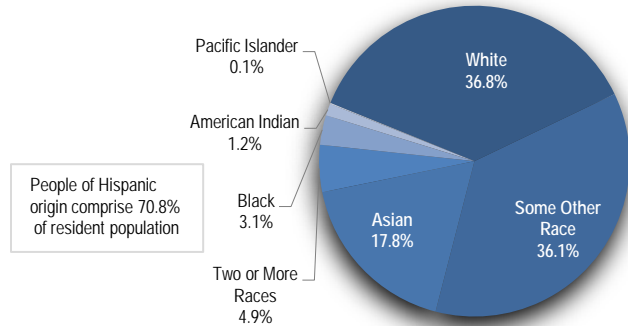
Council District 1



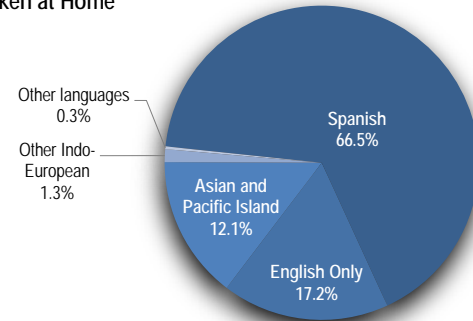
Educational Attainment of Resident Population Age 25+ Years



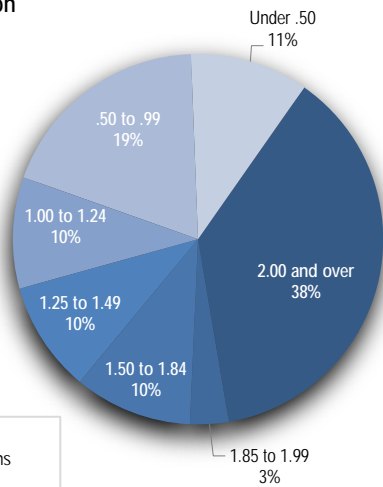
Race and Ethnicity of Resident Population



Language Spoken at Home Age 5+ Years



Ratio of Income to Poverty Level of Resident Population

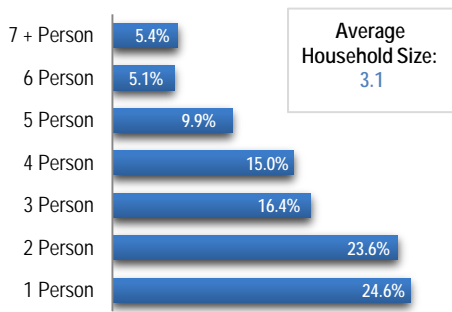


27.3% of households had income in the past 12 months below poverty level

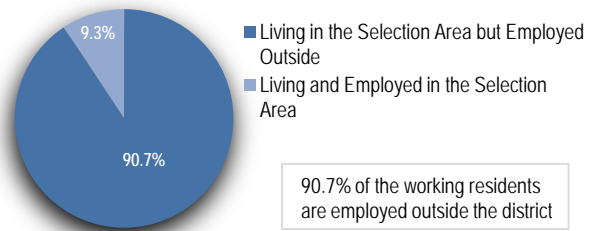
Means of Transportation to Work (Workers 16 and older)

Means of Transportation	Number	Share
Drove alone	56,145	50.6%
Carpooled	12,238	11.0%
Public transportation	31,309	28.2%
<i>Bus or trolley bus</i>	30,298	27.3%
<i>Streetcar or trolley car</i>	85	0.1%
<i>Subway or elevated</i>	821	0.7%
<i>Railroad</i>	105	0.1%
Taxicab	63	0.1%
Motorcycle	91	0.1%
Bicycle	509	0.5%
Walked	5,008	4.5%
Other means	2,000	1.8%
Worked at home	3,657	3.3%

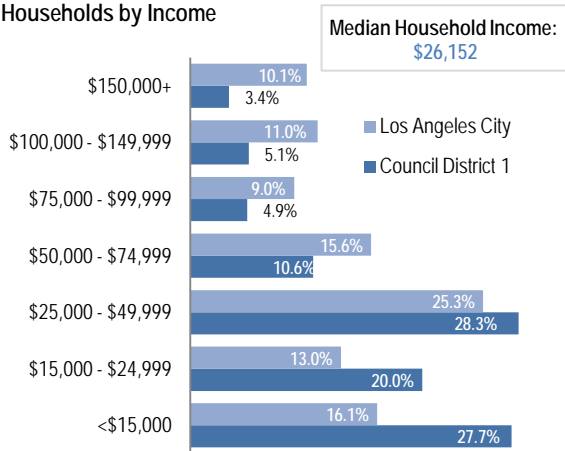
Households by Size



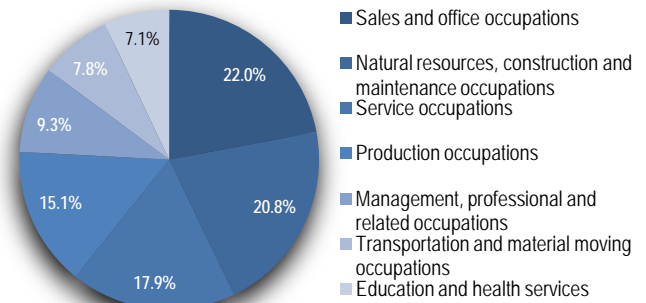
In-Area Labor Force Efficiency



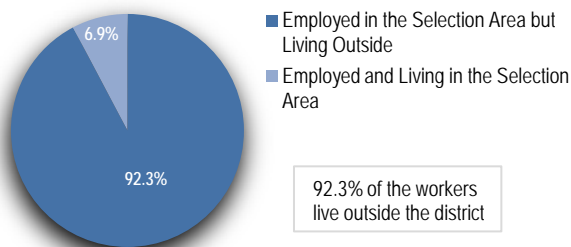
Households by Income



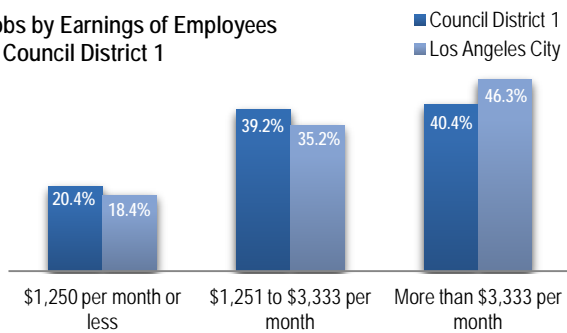
**Resident Employment by Occupation
Population Age 16+ Years**



In-Area Employment Efficiency



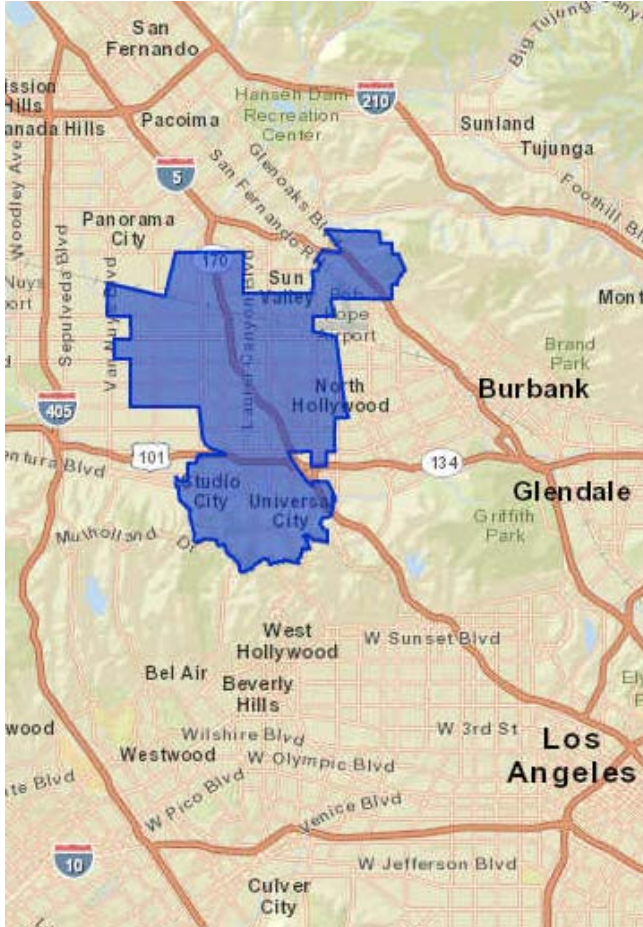
**Jobs by Earnings of Employees
In Council District 1**



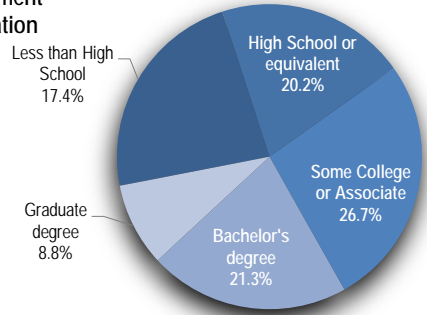
**Council District 1 Employment
by NAICS Industry Sector (2011)**

Industry Sector	Number	Share
Agriculture, Forestry, Fishing and Hunting	9	0.0%
Mining, Quarrying, and Oil and Gas Extraction	-	0.0%
Utilities	571	0.7%
Construction	869	1.1%
Manufacturing	3,474	4.2%
Wholesale Trade	2,383	2.9%
Retail Trade	5,510	6.7%
Transportation and Warehousing	3,774	4.6%
Information	1,386	1.7%
Finance and Insurance	4,018	4.9%
Real Estate and Rental and Leasing	1,178	1.4%
Professional, Scientific, and Technical Services	4,320	5.3%
Management of Companies and Enterprises	928	1.1%
Admin. & Support, Waste Mgmt and Remediation	7,749	9.4%
Educational Services	20,954	25.5%
Health Care and Social Assistance	10,586	12.9%
Arts, Entertainment, and Recreation	818	1.0%
Accommodation and Food Services	4,267	5.2%
Other Services (excluding Public Administration)	6,404	7.8%
Public Administration	2,949	3.6%
Total	82,147	100%

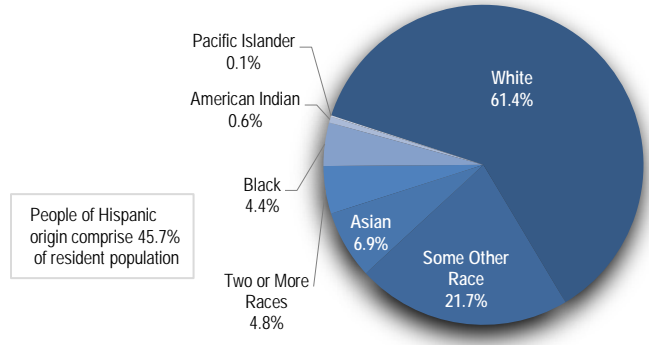
Council District 2



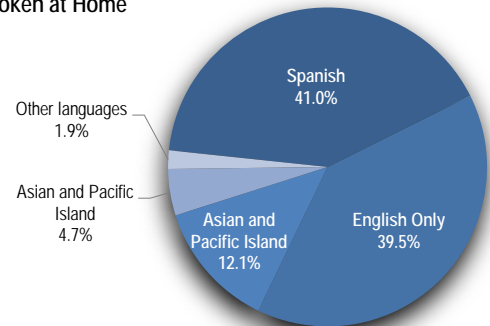
Educational Attainment of Resident Population Age 25+ Years



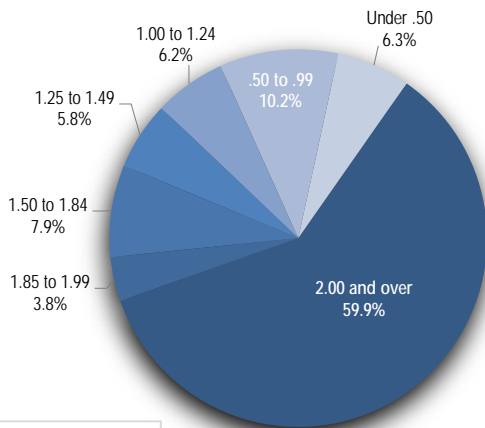
Race and Ethnicity of Resident Population



Language Spoken at Home Age 5+ Years



Ratio of Income to Poverty Level of Resident Population

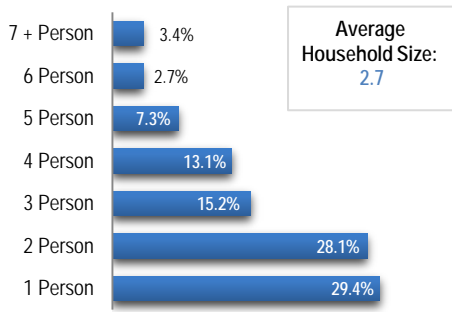


14.3% of households had income in the past 12 months below poverty level

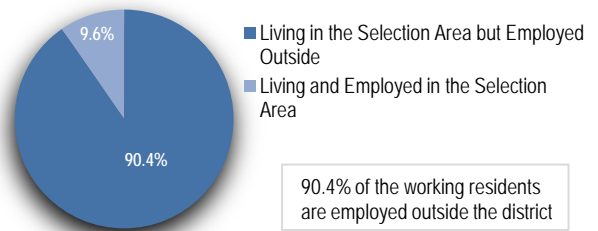
Means of Transportation to Work (Workers 16 and older)

Means of Transportation	Number	Share
Drove alone	89,652	72.0%
Carpooled	13,402	10.8%
Public transportation	9,352	7.5%
<i>Bus or trolley bus</i>	7,419	6.0%
<i>Streetcar or trolley car</i>	79	0.1%
<i>Subway or elevated</i>	1,672	1.3%
<i>Railroad</i>	182	0.1%
Taxicab	141	0.1%
Motorcycle	208	0.2%
Bicycle	650	0.5%
Walked	3,014	2.4%
Other means	2,158	1.7%
Worked at home	5,932	4.8%

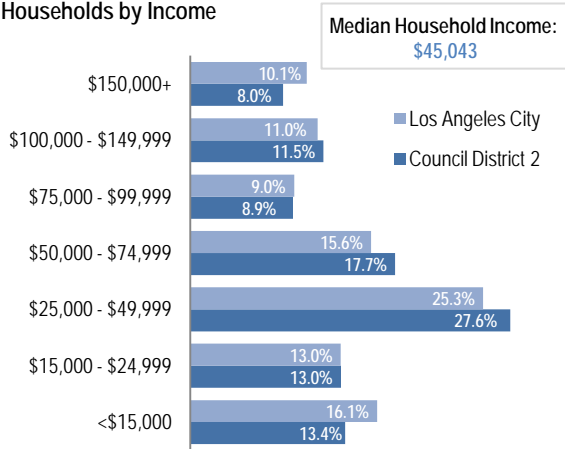
Households by Size



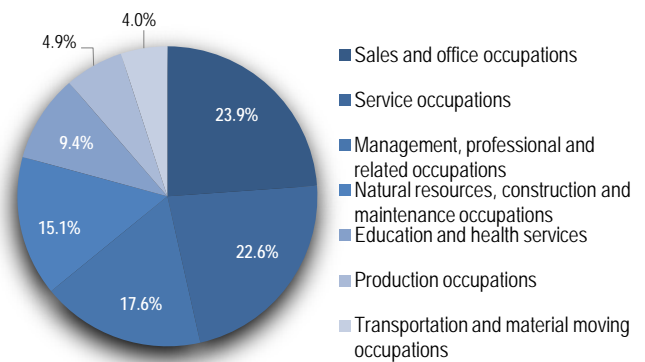
In-Area Labor Force Efficiency



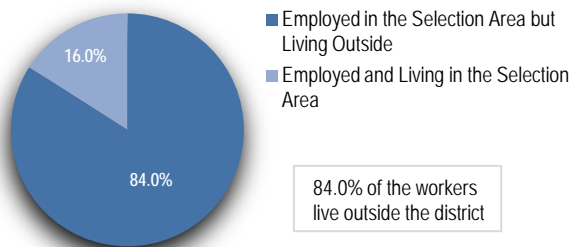
Households by Income



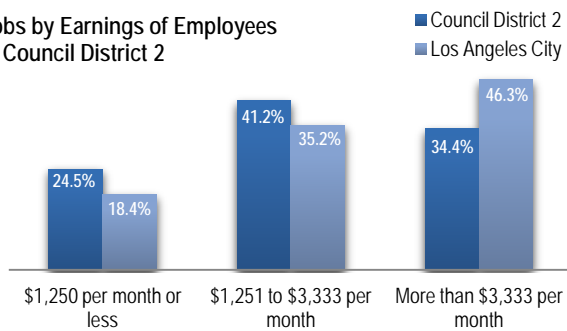
Resident Employment by Occupation
Population Age 16+ Years



In-Area Employment Efficiency



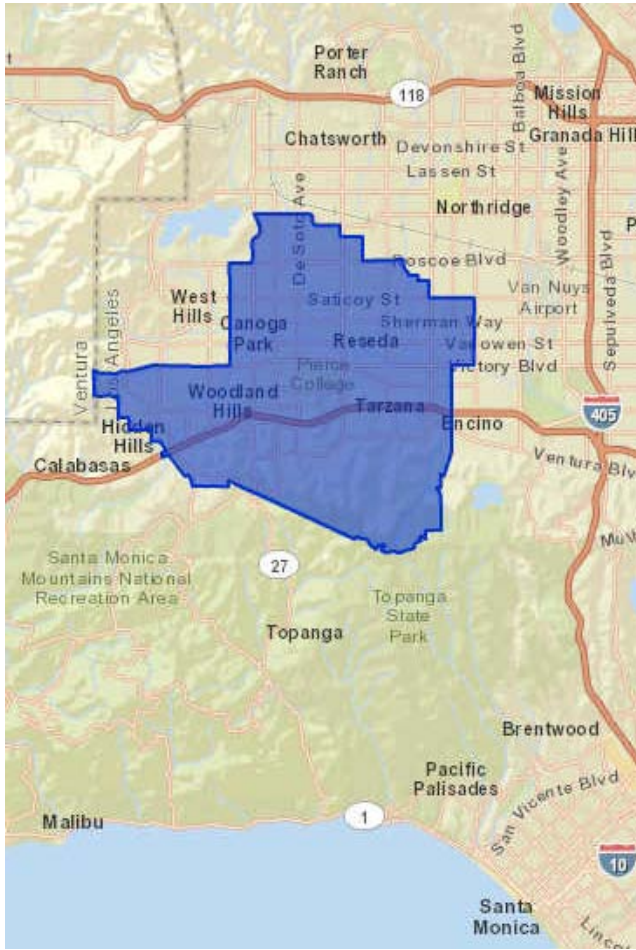
Jobs by Earnings of Employees
In Council District 2



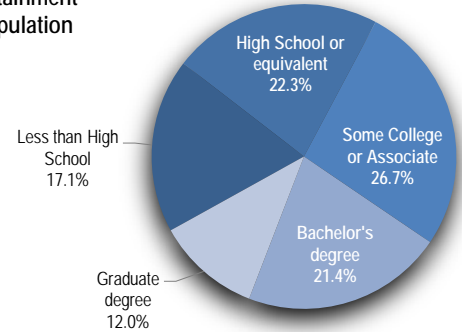
Council District 2 Employment
by NAICS Industry Sector (2011)

Industry Sector	Number	Share
Agriculture, Forestry, Fishing and Hunting	140	0.2%
Mining, Quarrying, and Oil and Gas Extraction	-	0.0%
Utilities	14	0.0%
Construction	2,246	3.9%
Manufacturing	6,254	11.0%
Wholesale Trade	2,840	5.0%
Retail Trade	7,429	13.0%
Transportation and Warehousing	1,400	2.5%
Information	3,061	5.4%
Finance and Insurance	1,553	2.7%
Real Estate and Rental and Leasing	1,330	2.3%
Professional, Scientific, and Technical Services	3,052	5.3%
Management of Companies and Enterprises	307	0.5%
Admin. & Support, Waste Mgmt and Remediation	4,785	8.4%
Educational Services	6,190	10.8%
Health Care and Social Assistance	5,271	9.2%
Arts, Entertainment, and Recreation	838	1.5%
Accommodation and Food Services	4,340	7.6%
Other Services (excluding Public Administration)	5,839	10.2%
Public Administration	183	0.3%
Total	57,072	100%

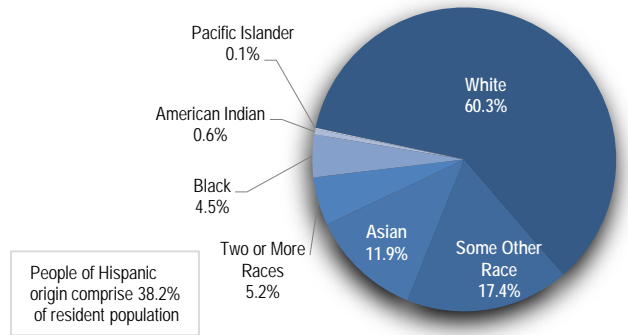
Council District 3



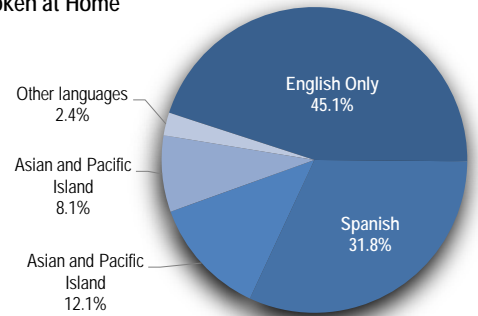
Educational Attainment of Resident Population Age 25+ Years



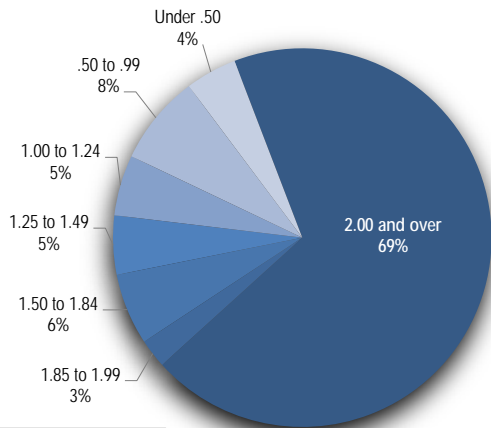
Race and Ethnicity of Resident Population



Language Spoken at Home Age 5+ Years



Ratio of Income to Poverty Level of Resident Population

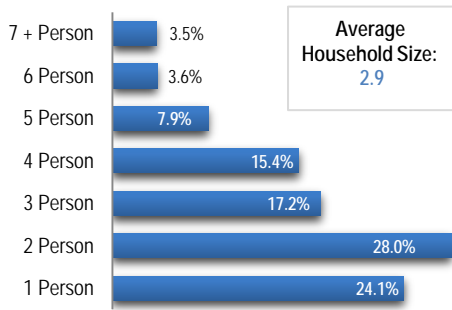


10.8% of households had income in the past 12 months below poverty level

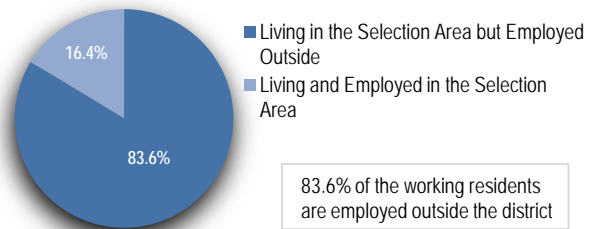
Means of Transportation to Work (Workers 16 and older)

Means of Transportation	Number	Share
Drove alone	89,461	72.5%
Carpooled	14,779	12.0%
Public transportation	6,790	5.5%
<i>Bus or trolley bus</i>	6,387	5.2%
<i>Streetcar or trolley car</i>	38	0.0%
<i>Subway or elevated</i>	91	0.1%
<i>Railroad</i>	273	0.2%
Taxicab	86	0.1%
Motorcycle	265	0.2%
Bicycle	1,742	1.4%
Walked	3,034	2.5%
Other means	1,323	1.1%
Worked at home	5,866	4.8%

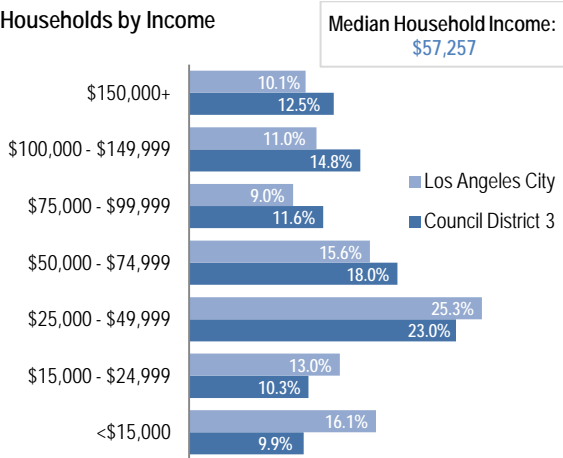
Households by Size



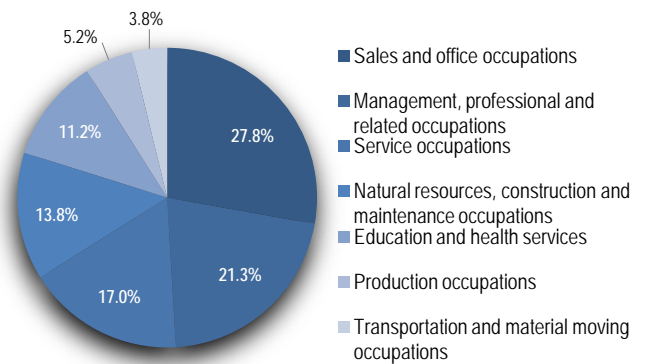
In-Area Labor Force Efficiency



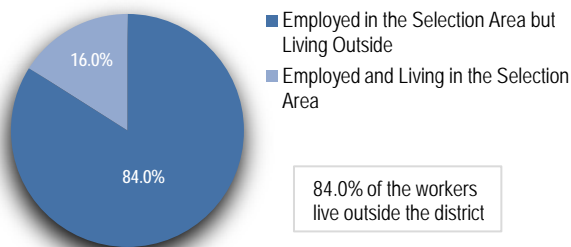
Households by Income



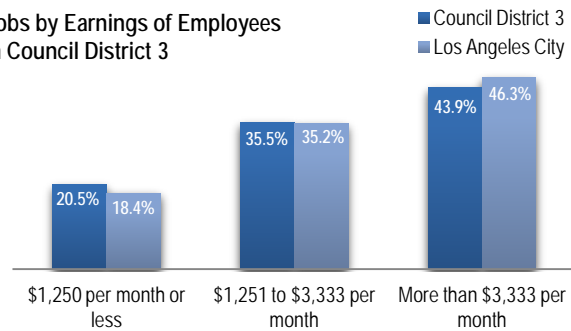
**Resident Employment by Occupation
Population Age 16+ Years**



In-Area Employment Efficiency



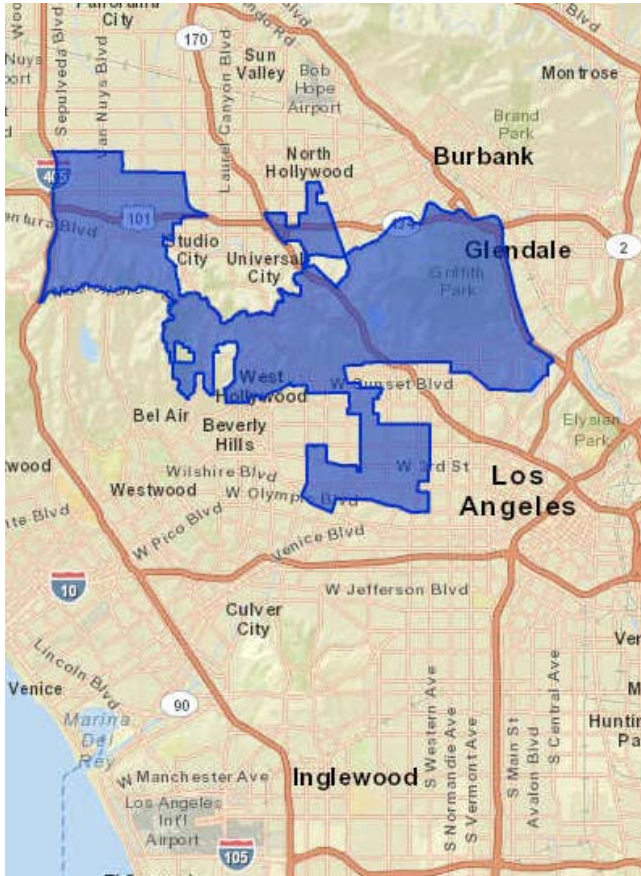
**Jobs by Earnings of Employees
In Council District 3**



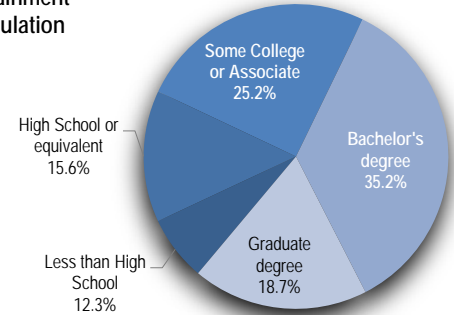
Council District 3 Employment by NAICS Industry Sector (2011)

Industry Sector	Number	Share
Agriculture, Forestry, Fishing and Hunting	416	0.5%
Mining, Quarrying, and Oil and Gas Extraction	3	0.0%
Utilities	92	0.1%
Construction	3,487	3.8%
Manufacturing	5,958	6.5%
Wholesale Trade	3,565	3.9%
Retail Trade	12,195	13.3%
Transportation and Warehousing	805	0.9%
Information	2,182	2.4%
Finance and Insurance	11,267	12.3%
Real Estate and Rental and Leasing	2,996	3.3%
Professional, Scientific, and Technical Services	6,271	6.8%
Management of Companies and Enterprises	1,400	1.5%
Admin. & Support, Waste Mgmt and Remediation	8,750	9.5%
Educational Services	5,949	6.5%
Health Care and Social Assistance	13,496	14.7%
Arts, Entertainment, and Recreation	1,399	1.5%
Accommodation and Food Services	5,981	6.5%
Other Services (excluding Public Administration)	5,287	5.8%
Public Administration	340	0.4%
Total	93,850	100%

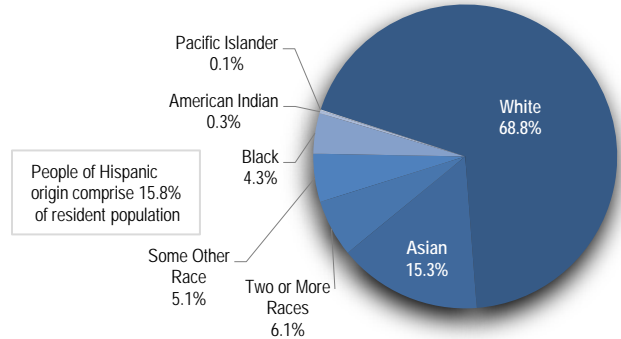
Council District 4



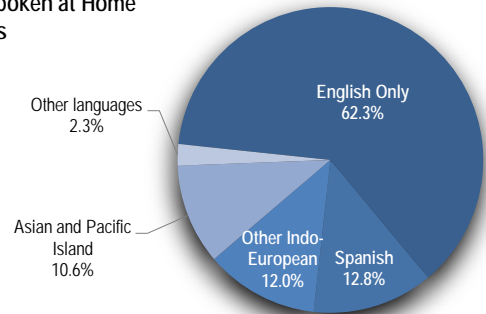
Educational Attainment of Resident Population Age 25+ Years



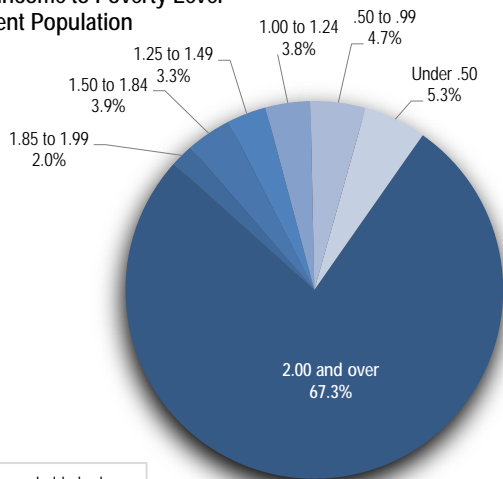
Race and Ethnicity of Resident Population



Language Spoken at Home Age 5+ Years



Ratio of Income to Poverty Level of Resident Population

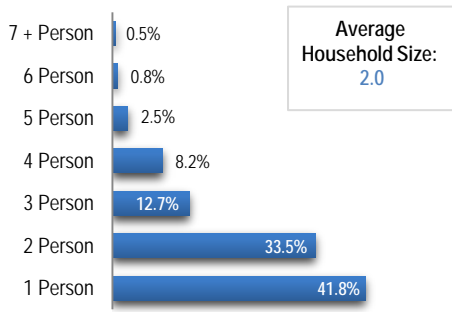


10.1% of households had income in the past 12 months below poverty level

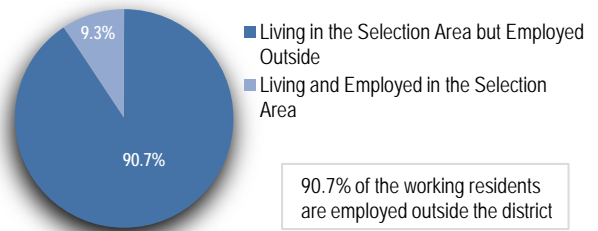
Means of Transportation to Work (Workers 16 and older)

Means of Transportation	Number	Share
Drove alone	102,522	73.3%
Carpooled	10,276	7.3%
Public transportation	7,532	5.4%
<i>Bus or trolley bus</i>	6,107	4.4%
<i>Streetcar or trolley car</i>	10	0.0%
<i>Subway or elevated</i>	1,315	0.9%
<i>Railroad</i>	100	0.1%
Taxicab	165	0.1%
Motorcycle	555	0.4%
Bicycle	932	0.7%
Walked	3,790	2.7%
Other means	1,141	0.8%
Worked at home	12,938	9.3%

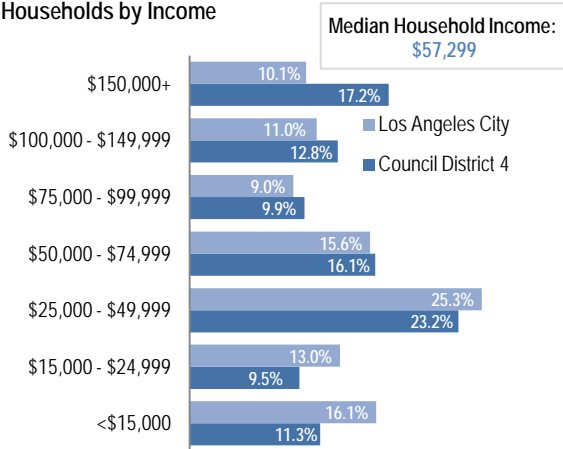
Households by Size



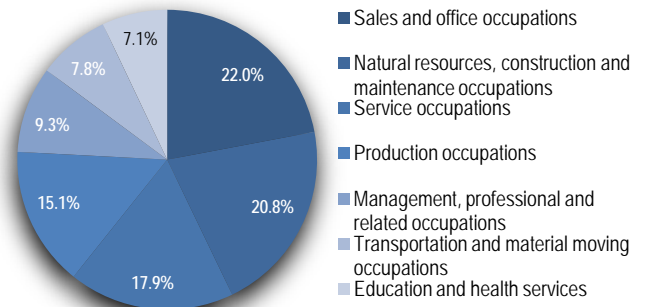
In-Area Labor Force Efficiency



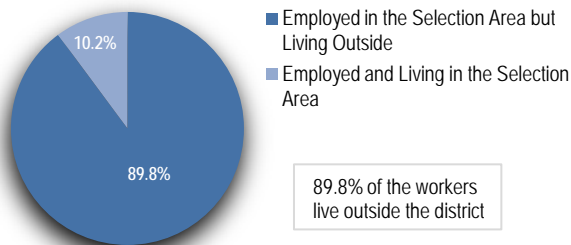
Households by Income



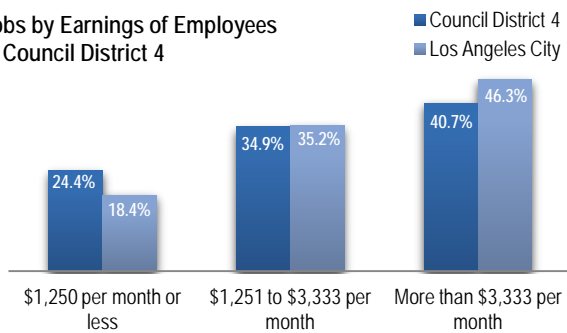
Resident Employment by Occupation
Population Age 16+ Years



In-Area Employment Efficiency



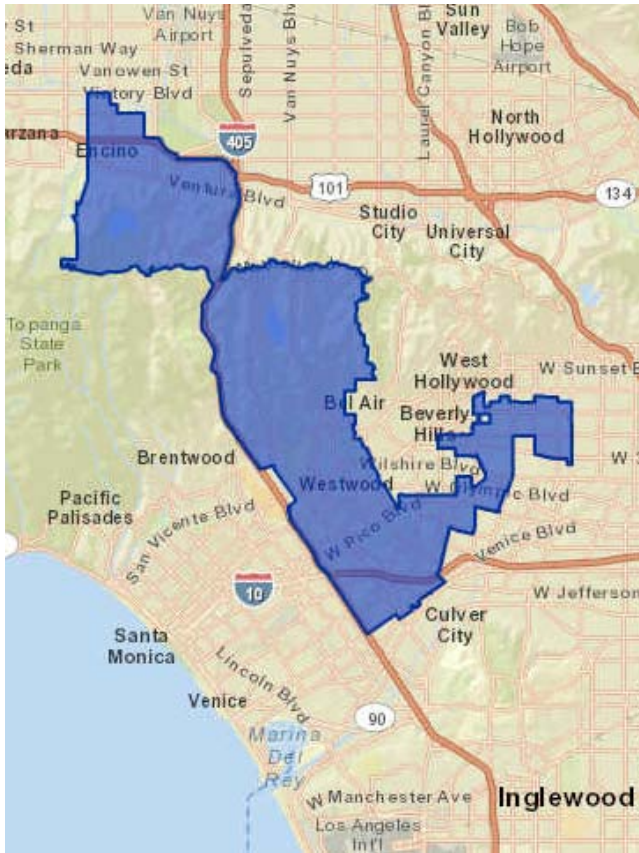
Jobs by Earnings of Employees
In Council District 4



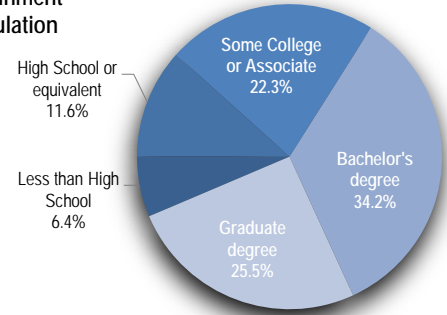
Council District 4 Employment
by NAICS Industry Sector (2011)

Industry Sector	Number	Share
Agriculture, Forestry, Fishing and Hunting	114	0.1%
Mining, Quarrying, and Oil and Gas Extraction	-	0.0%
Utilities	24	0.0%
Construction	1,403	1.4%
Manufacturing	1,560	1.5%
Wholesale Trade	1,958	1.9%
Retail Trade	13,537	13.1%
Transportation and Warehousing	495	0.5%
Information	18,041	17.5%
Finance and Insurance	6,778	6.6%
Real Estate and Rental and Leasing	3,504	3.4%
Professional, Scientific, and Technical Services	10,132	9.8%
Management of Companies and Enterprises	1,561	1.5%
Admin. & Support, Waste Mgmt and Remediation	4,991	4.8%
Educational Services	4,086	4.0%
Health Care and Social Assistance	9,017	8.8%
Arts, Entertainment, and Recreation	3,926	3.8%
Accommodation and Food Services	10,984	10.7%
Other Services (excluding Public Administration)	8,580	8.3%
Public Administration	2,298	2.2%
Total	102,989	100%

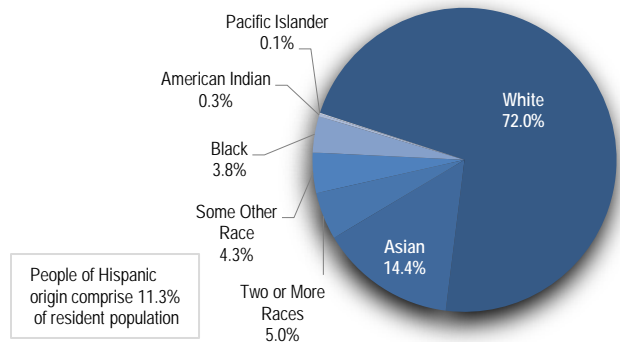
Council District 5



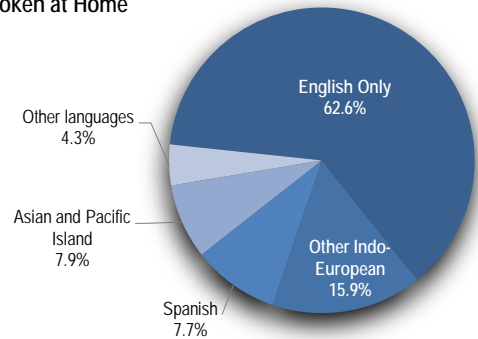
Educational Attainment of Resident Population Age 25+ Years



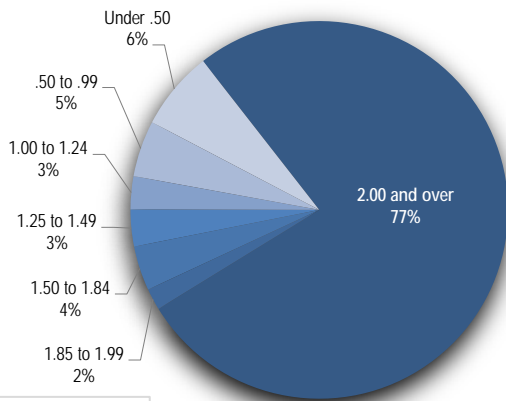
Race and Ethnicity of Resident Population



Language Spoken at Home Age 5+ Years



Ratio of Income to Poverty Level of Resident Population

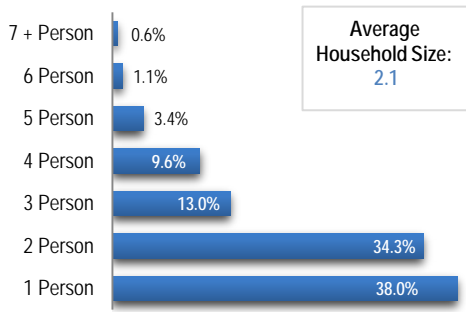


10.9% of households had income in the past 12 months below poverty level

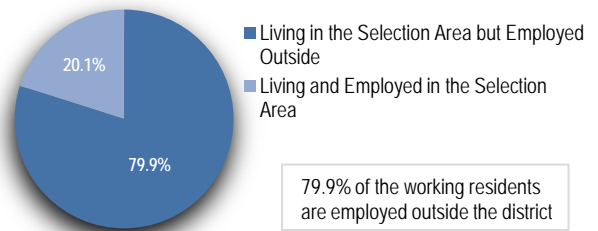
Means of Transportation to Work (Workers 16 and older)

	Number	Share
Drove alone	94,298	72.7%
Carpooled	7,922	6.1%
Public transportation	6,051	4.7%
<i>Bus or trolley bus</i>	5,885	4.5%
<i>Streetcar or trolley car</i>	37	0.0%
<i>Subway or elevated</i>	101	0.1%
<i>Railroad</i>	28	0.0%
Taxicab	120	0.1%
Motorcycle	227	0.2%
Bicycle	1,149	0.9%
Walked	8,011	6.2%
Other means	978	0.8%
Worked at home	10,944	8.4%

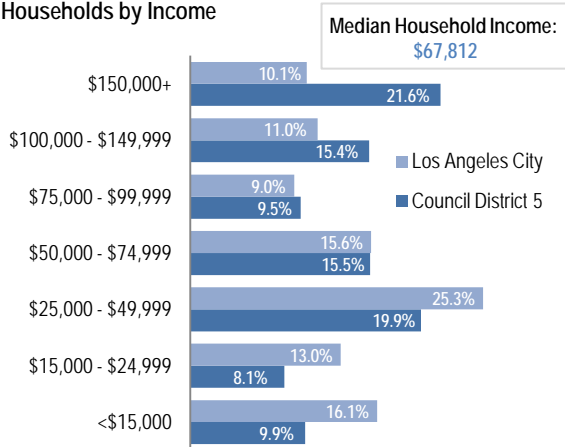
Households by Size



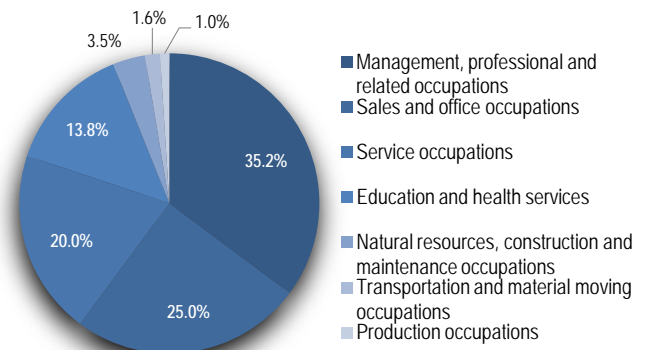
In-Area Labor Force Efficiency



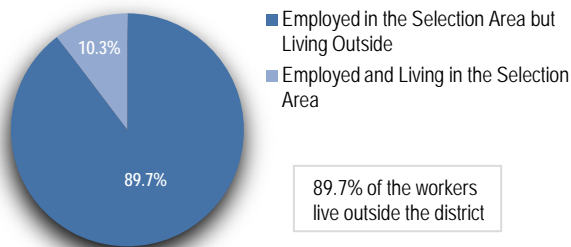
Households by Income



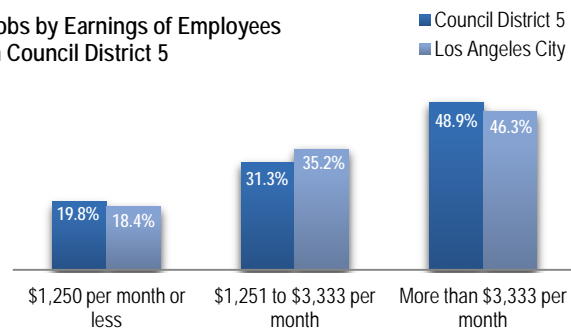
Resident Employment by Occupation
Population Age 16+ Years



In-Area Employment Efficiency



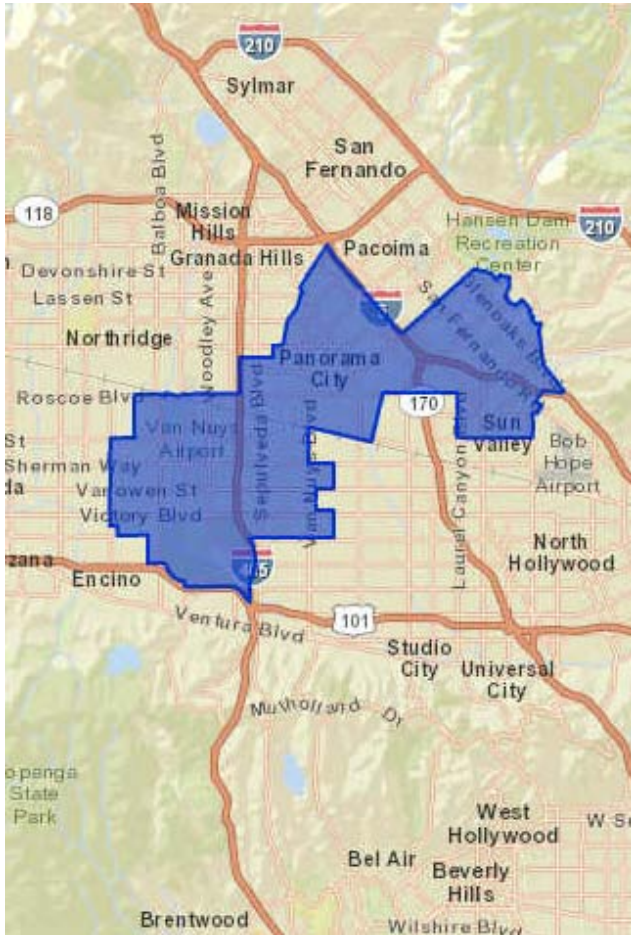
Jobs by Earnings of Employees In Council District 5



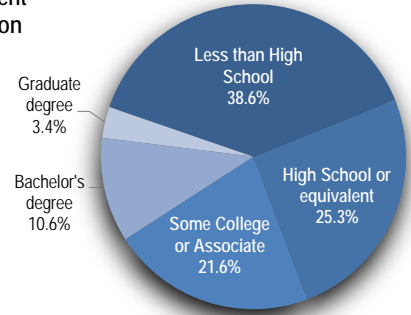
Council District 5 Employment by NAICS Industry Sector (2011)

Industry Sector	Number	Share
Agriculture, Forestry, Fishing and Hunting	72	0.0%
Mining, Quarrying, and Oil and Gas Extraction	787	0.4%
Utilities	44	0.0%
Construction	1,863	1.0%
Manufacturing	1,865	1.0%
Wholesale Trade	3,319	1.8%
Retail Trade	15,818	8.4%
Transportation and Warehousing	906	0.5%
Information	17,570	9.3%
Finance and Insurance	10,305	5.5%
Real Estate and Rental and Leasing	5,381	2.9%
Professional, Scientific, and Technical Services	27,529	14.6%
Management of Companies and Enterprises	1,296	0.7%
Admin. & Support, Waste Mgmt and Remediation	13,933	7.4%
Educational Services	25,658	13.6%
Health Care and Social Assistance	29,159	15.5%
Arts, Entertainment, and Recreation	4,457	2.4%
Accommodation and Food Services	15,383	8.2%
Other Services (excluding Public Administration)	12,415	6.6%
Public Administration	526	0.3%
Total	188,286	100%

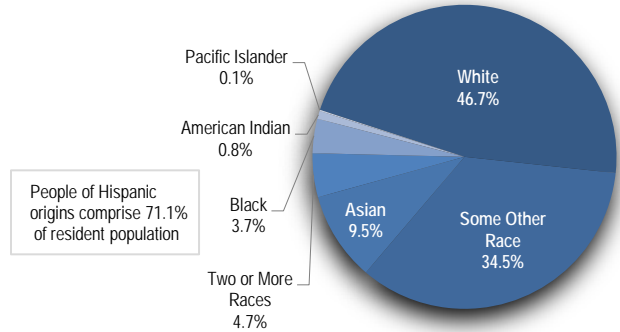
Council District 6



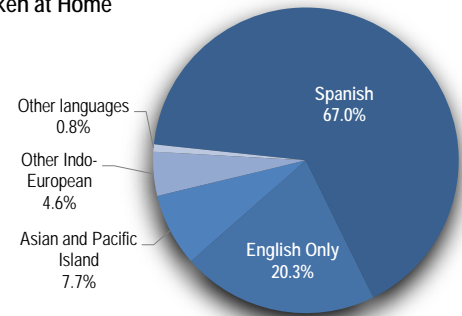
Educational Attainment of Resident Population Age 25+ Years



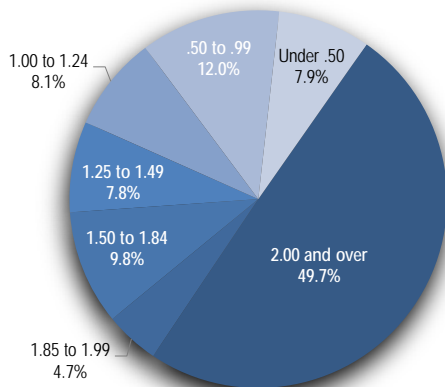
Race and Ethnicity of Resident Population



Language Spoken at Home Age 5+ Years



Ratio of Income to Poverty Level of Resident Population

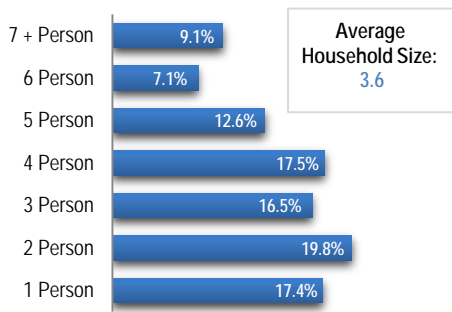


18.3% of households had income in the past 12 months below poverty level

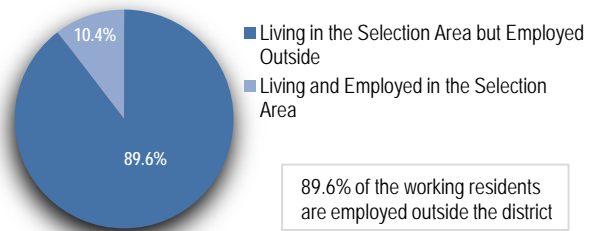
Means of Transportation to Work (Workers 16 and older)

Means of Transportation	Number	Share
Drove alone	80,174	68.9%
Carpooled	17,688	15.2%
Public transportation	10,171	8.7%
<i>Bus or trolley bus</i>	9,598	8.2%
<i>Streetcar or trolley car</i>	32	0.0%
<i>Subway or elevated</i>	480	0.4%
<i>Railroad</i>	60	0.1%
Taxicab	41	0.0%
Motorcycle	151	0.1%
Bicycle	599	0.5%
Walked	2,855	2.5%
Other means	1,648	1.4%
Worked at home	3,031	2.6%

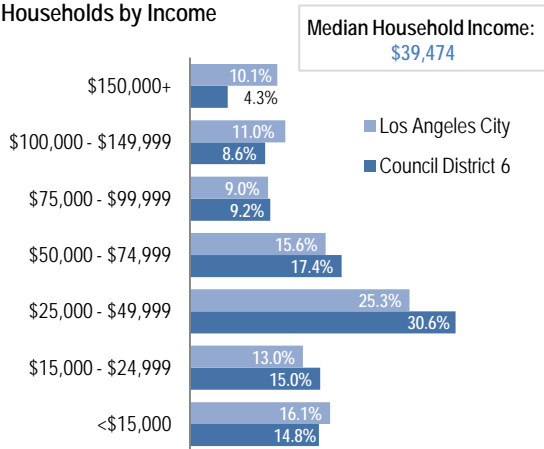
Households by Size



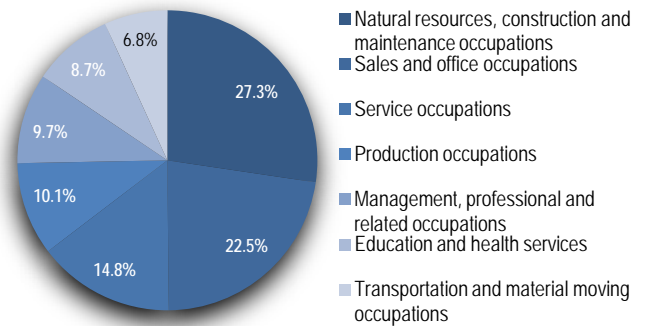
In-Area Labor Force Efficiency



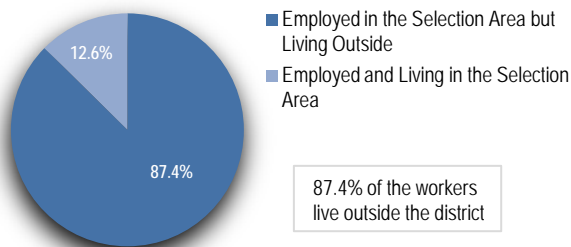
Households by Income



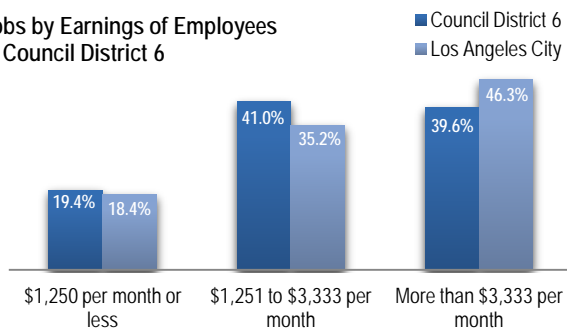
Resident Employment by Occupation
Population Age 16+ Years



In-Area Employment Efficiency



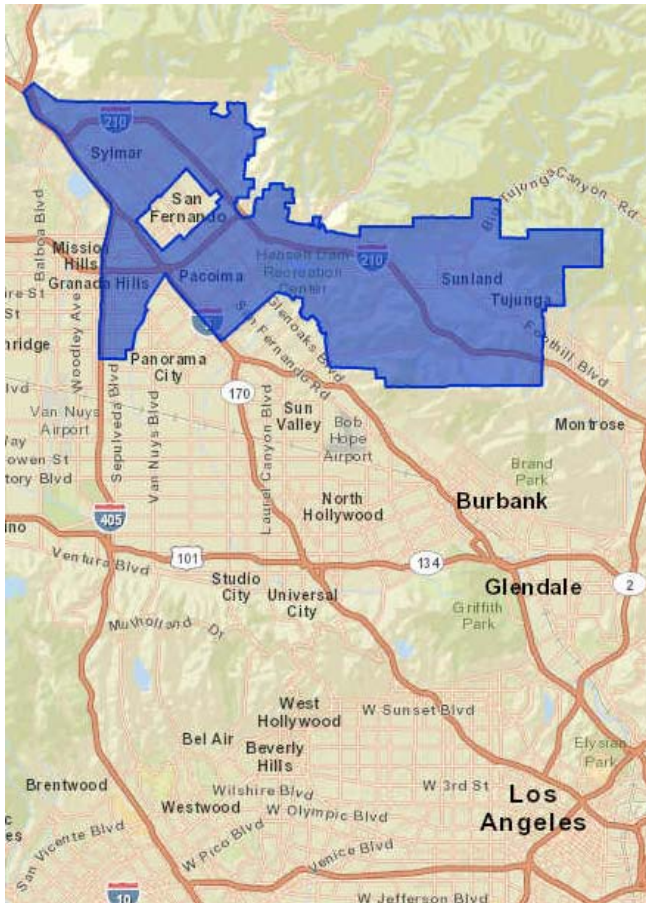
Jobs by Earnings of Employees
In Council District 6



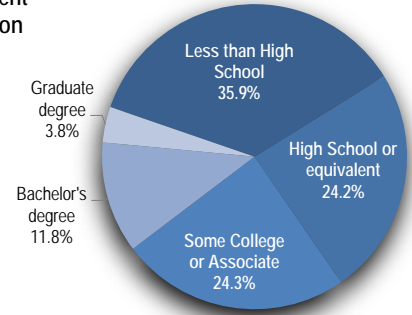
Council District 6 Employment
by NAICS Industry Sector (2011)

Industry Sector	Number	Share
Agriculture, Forestry, Fishing and Hunting	46	0.1%
Mining, Quarrying, and Oil and Gas Extraction	58	0.1%
Utilities	125	0.2%
Construction	3,790	5.7%
Manufacturing	9,076	13.5%
Wholesale Trade	4,837	7.2%
Retail Trade	8,669	12.9%
Transportation and Warehousing	3,972	5.9%
Information	1,529	2.3%
Finance and Insurance	1,754	2.6%
Real Estate and Rental and Leasing	1,898	2.8%
Professional, Scientific, and Technical Services	2,820	4.2%
Management of Companies and Enterprises	754	1.1%
Admin. & Support, Waste Mgmt and Remediation	3,479	5.2%
Educational Services	5,495	8.2%
Health Care and Social Assistance	10,496	15.6%
Arts, Entertainment, and Recreation	238	0.4%
Accommodation and Food Services	3,206	4.8%
Other Services (excluding Public Administration)	4,335	6.5%
Public Administration	496	0.7%
Total	67,073	100%

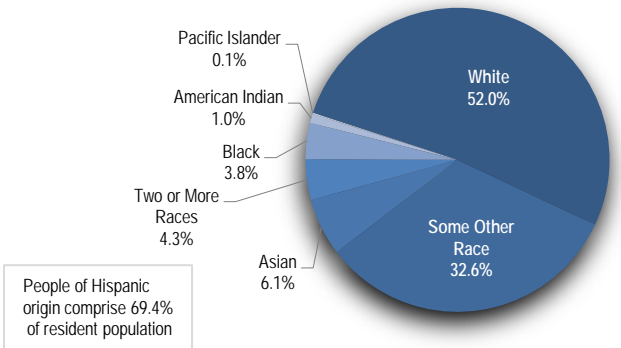
Council District 7



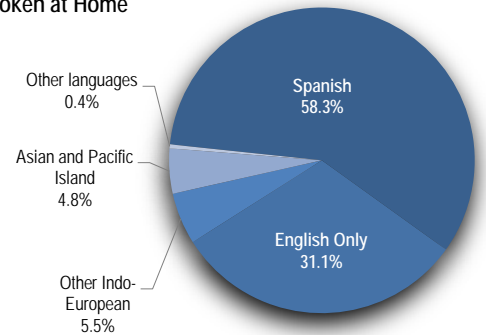
Educational Attainment of Resident Population Age 25+ Years



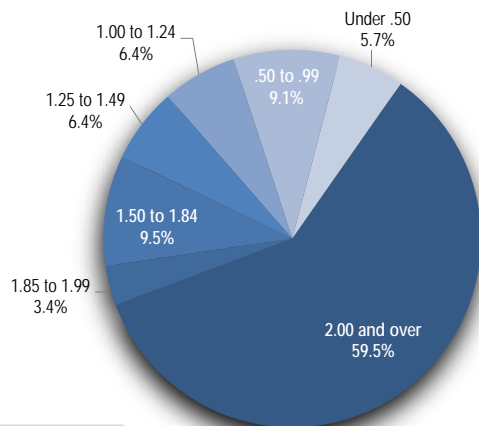
Race and Ethnicity of Resident Population



Language Spoken at Home Age 5+ Years



Ratio of Income to Poverty Level of Resident Population

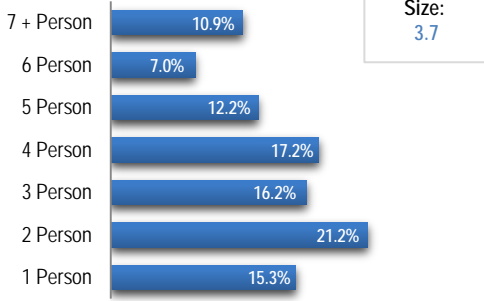


12.6% of households had income in the past 12 months below poverty level

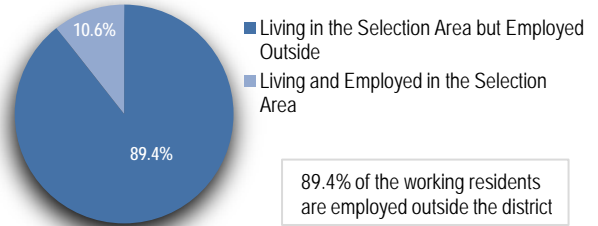
Means of Transportation to Work (Workers 16 and older)

Means of Transportation	Number	Share
Drove alone	78,057	72.3%
Carpooled	18,039	16.7%
Public transportation	4,660	4.3%
<i>Bus or trolley bus</i>	4,383	4.1%
<i>Subway or elevated</i>	107	0.1%
<i>Railroad</i>	171	0.2%
Taxicab	40	0.0%
Motorcycle	370	0.3%
Bicycle	378	0.3%
Walked	1,869	1.7%
Other means	1,530	1.4%
Worked at home	3,067	2.8%

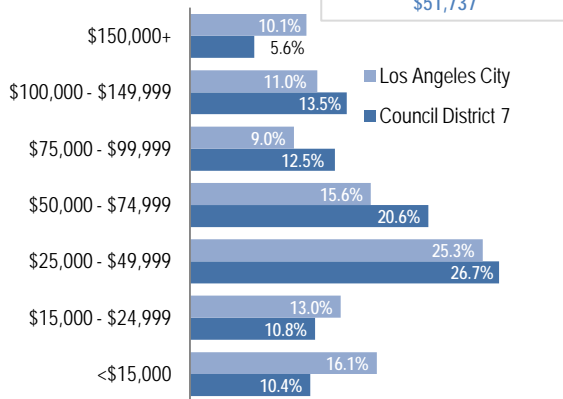
Households by Size



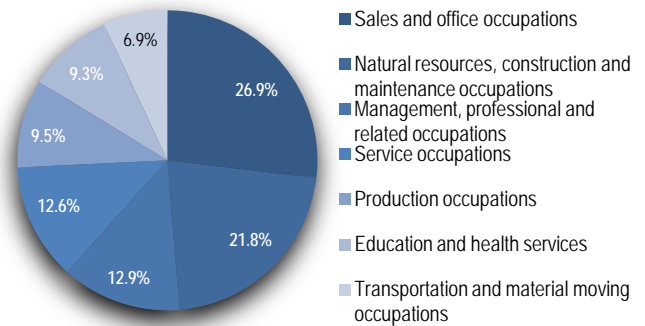
In-Area Labor Force Efficiency



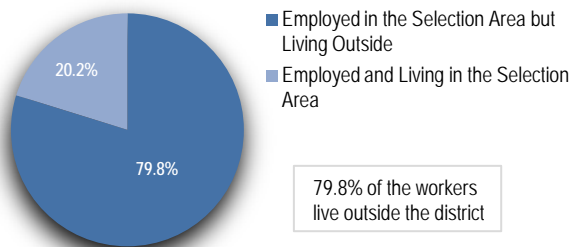
Households by Income



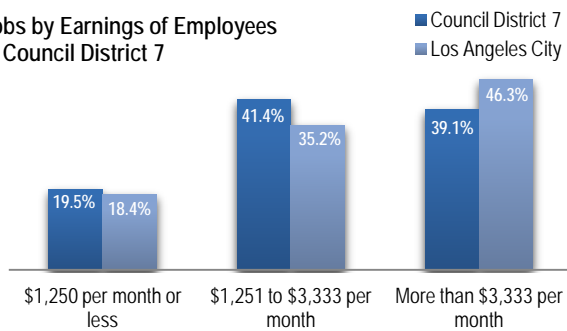
Resident Employment by Occupation
Population Age 16+ Years



In-Area Employment Efficiency



Jobs by Earnings of Employees In Council District 7



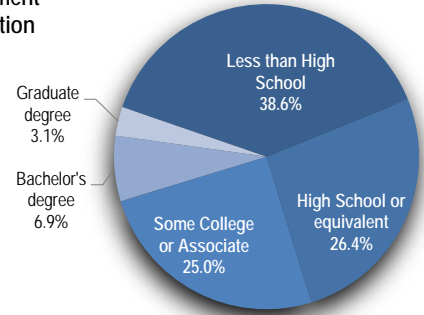
Council District 7 Employment by NAICS Industry Sector (2011)

Industry Sector	Number	Share
Agriculture, Forestry, Fishing and Hunting	124	0.3%
Mining, Quarrying, and Oil and Gas Extraction	-	0.0%
Utilities	64	0.1%
Construction	2,938	6.3%
Manufacturing	11,399	24.6%
Wholesale Trade	3,531	7.6%
Retail Trade	5,347	11.5%
Transportation and Warehousing	1,217	2.6%
Information	203	0.4%
Finance and Insurance	599	1.3%
Real Estate and Rental and Leasing	740	1.6%
Professional, Scientific, and Technical Services	1,344	2.9%
Management of Companies and Enterprises	348	0.8%
Admin. & Support, Waste Mgmt and Remediation	1,567	3.4%
Educational Services	4,519	9.7%
Health Care and Social Assistance	7,033	15.2%
Arts, Entertainment, and Recreation	229	0.5%
Accommodation and Food Services	2,191	4.7%
Other Services (excluding Public Administration)	2,907	6.3%
Public Administration	50	0.1%
Total	46,350	100%

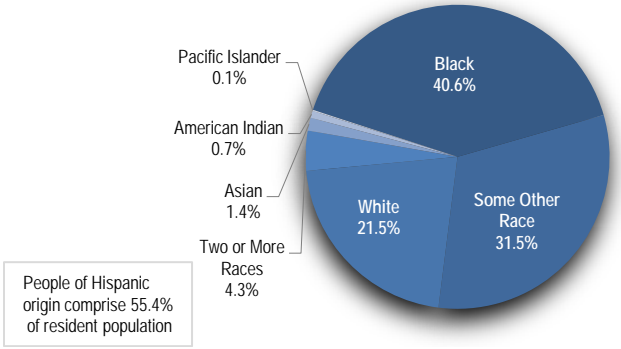
Council District 8



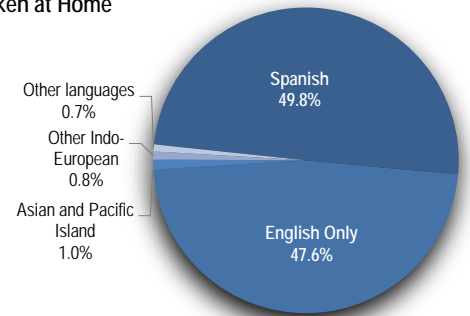
Educational Attainment of Resident Population Age 25+ Years



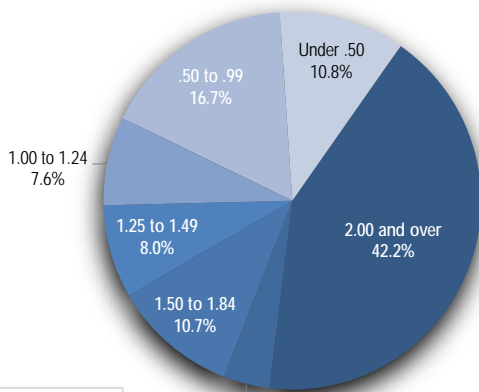
Race and Ethnicity of Resident Population



Language Spoken at Home Age 5+ Years



Ratio of Income to Poverty Level of Resident Population

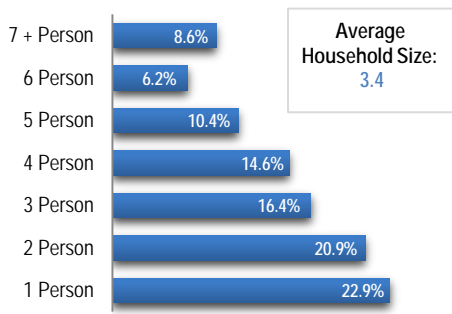


26.8% of households had income in the past 12 months below poverty level

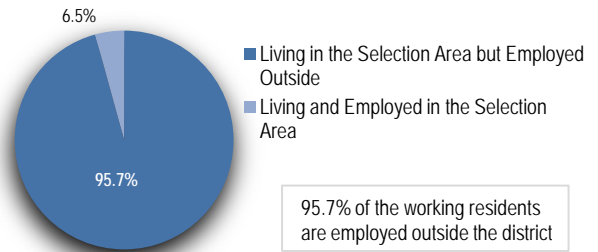
Means of Transportation to Work (Workers 16 and older)

	Number	Share
Drove alone	61,748	66.7%
Carpooled	11,941	12.9%
Public transportation	13,398	14.5%
<i>Bus or trolley bus</i>	13,168	14.2%
<i>Streetcar or trolley car</i>	81	0.1%
<i>Subway or elevated</i>	105	0.1%
<i>Railroad</i>	44	0.0%
Taxicab	113	0.1%
Motorcycle	296	0.3%
Bicycle	494	0.5%
Walked	1,541	1.7%
Other means	818	0.9%
Worked at home	2,271	2.5%

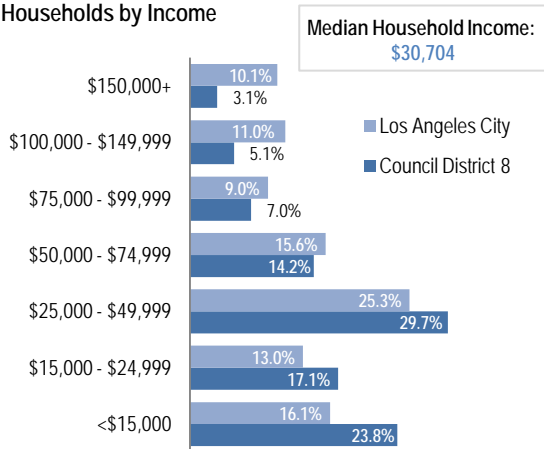
Households by Size



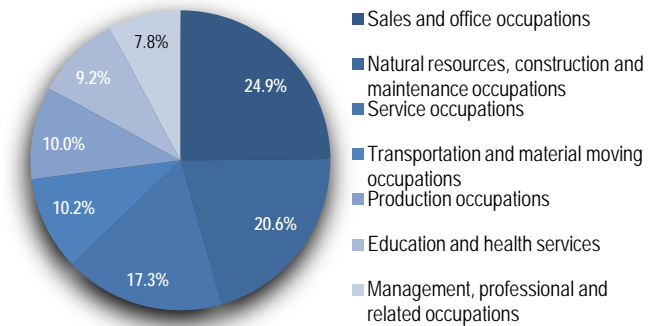
In-Area Labor Force Efficiency



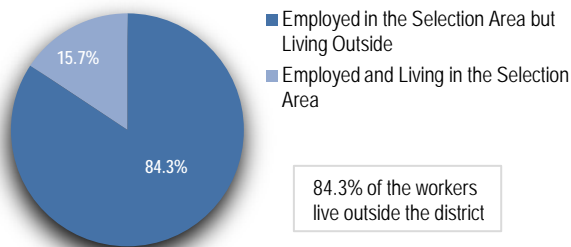
Households by Income



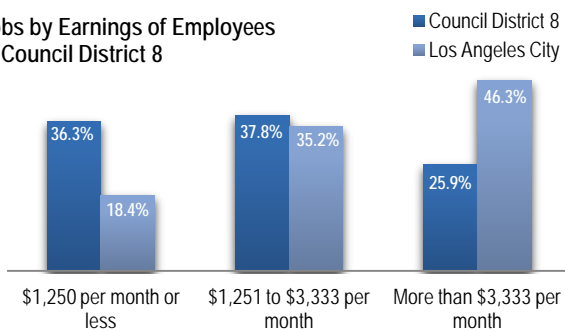
Resident Employment by Occupation
Population Age 16+ Years



In-Area Employment Efficiency



Jobs by Earnings of Employees
In Council District 8



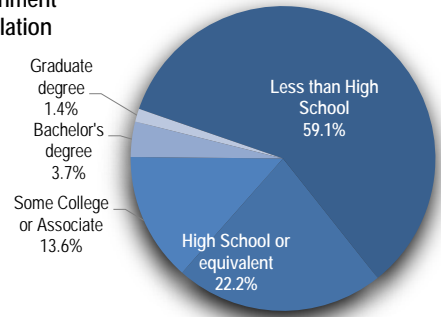
Council District 8 Employment by NAICS Industry Sector (2011)

NAICS Industry Sector	Number	Share
Agriculture, Forestry, Fishing and Hunting	8	0.0%
Mining, Quarrying, and Oil and Gas Extraction	2	0.0%
Utilities	4	0.0%
Construction	361	1.9%
Manufacturing	965	5.1%
Wholesale Trade	575	3.0%
Retail Trade	2,863	15.2%
Transportation and Warehousing	992	5.3%
Information	121	0.6%
Finance and Insurance	377	2.0%
Real Estate and Rental and Leasing	172	0.9%
Professional, Scientific, and Technical Services	348	1.8%
Management of Companies and Enterprises	132	0.7%
Admin. & Support, Waste Mgmt and Remediation	236	1.2%
Educational Services	3,266	17.3%
Health Care and Social Assistance	2,555	13.5%
Arts, Entertainment, and Recreation	26	0.1%
Accommodation and Food Services	1,546	8.2%
Other Services (excluding Public Administration)	4,164	22.0%
Public Administration	177	0.9%
Total	18,890	100%

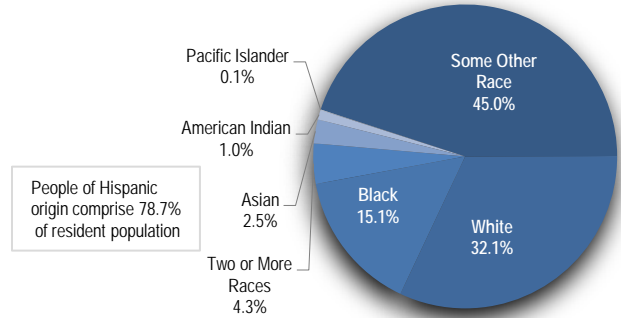
Council District 9



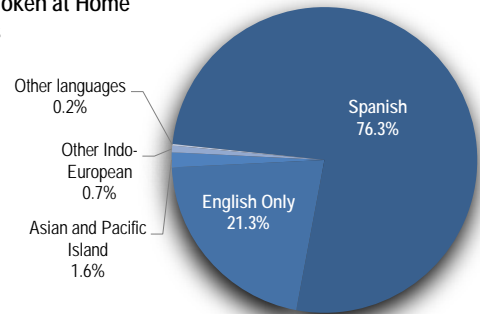
Educational Attainment of Resident Population Age 25+ Years



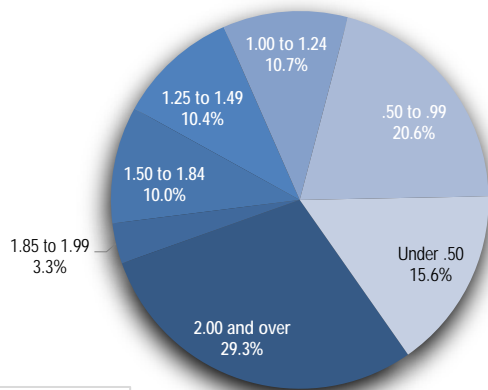
Race and Ethnicity of Resident Population



Language Spoken at Home Age 5+ Years



Ratio of Income to Poverty Level of Resident Population

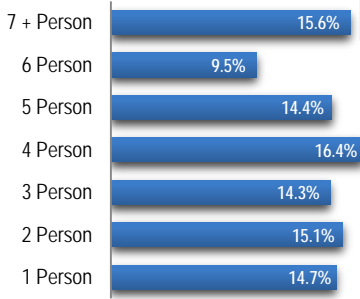


36.0% of households had income in the past 12 months below poverty level

Means of Transportation to Work (Workers 16 and older)

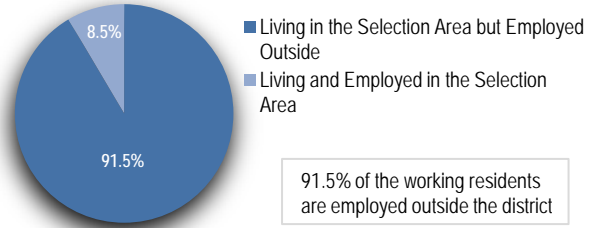
	Number	Share
Drove alone	49,596	53.6%
Carpooled	12,847	13.9%
Public transportation	18,948	20.5%
<i>Bus or trolley bus</i>	18,630	20.1%
<i>Streetcar or trolley car</i>	71	0.1%
<i>Subway or elevated</i>	247	0.3%
<i>Railroad</i>	1	0.0%
Taxicab	41	0.0%
Motorcycle	13	0.0%
Bicycle	1,517	1.6%
Walked	5,946	6.4%
Other means	892	1.0%
Worked at home	2,800	3.0%

Households by Size



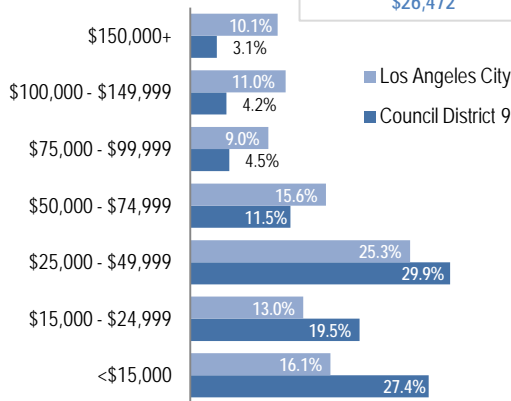
Average Household Size: 4.2

In-Area Labor Force Efficiency



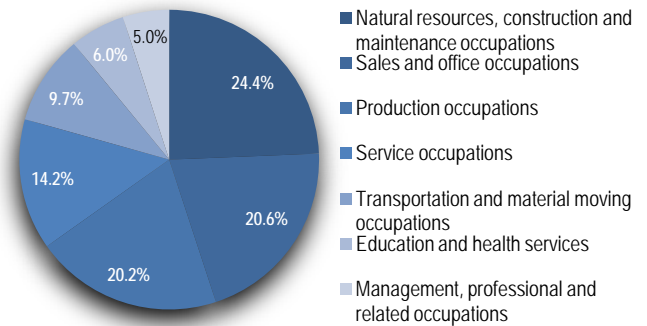
91.5% of the working residents are employed outside the district

Households by Income

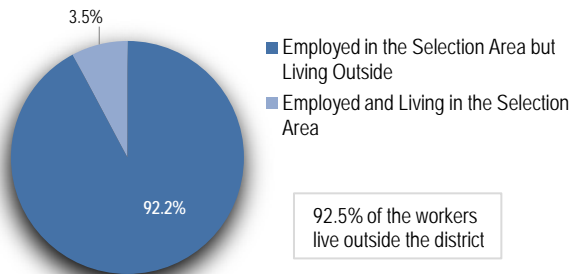


Median Household Income: \$26,472

Resident Employment by Occupation
Population Age 16+ Years

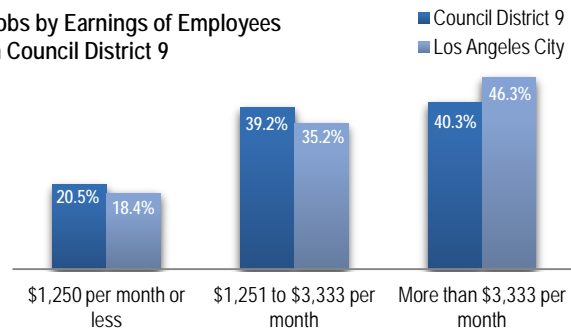


In-Area Employment Efficiency



92.5% of the workers live outside the district

Jobs by Earnings of Employees In Council District 9



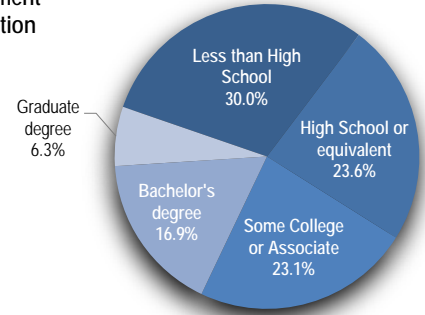
Council District 9 Employment by NAICS Industry Sector (2011)

Industry Sector	Number	Share
Agriculture, Forestry, Fishing and Hunting	8	0.0%
Mining, Quarrying, and Oil and Gas Extraction	2	0.0%
Utilities	13	0.0%
Construction	252	0.4%
Manufacturing	8,690	13.7%
Wholesale Trade	5,708	9.0%
Retail Trade	4,633	7.3%
Transportation and Warehousing	1,509	2.4%
Information	185	0.3%
Finance and Insurance	984	1.6%
Real Estate and Rental and Leasing	377	0.6%
Professional, Scientific, and Technical Services	1,971	3.1%
Management of Companies and Enterprises	500	0.8%
Admin. & Support, Waste Mgmt and Remediation	1,713	2.7%
Educational Services	23,395	36.9%
Health Care and Social Assistance	2,862	4.5%
Arts, Entertainment, and Recreation	2,070	3.3%
Accommodation and Food Services	3,359	5.3%
Other Services (excluding Public Administration)	4,221	6.7%
Public Administration	999	1.6%
Total	63,451	100%

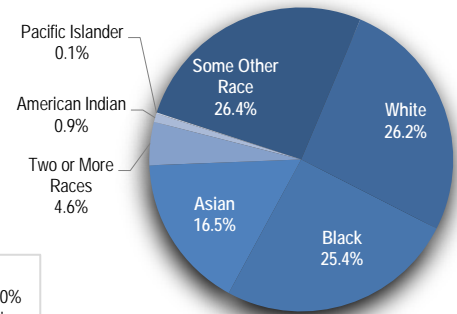
Council District 10



Educational Attainment of Resident Population Age 25+ Years

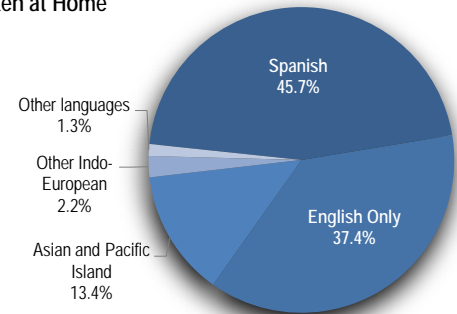


Race and Ethnicity of Resident Population

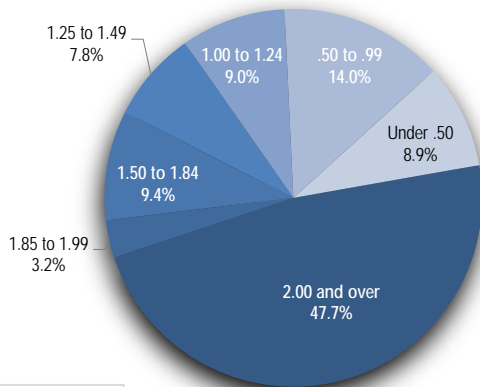


People of Hispanic origin comprise 49.0% of resident population

Language Spoken at Home Age 5+ Years



Ratio of Income to Poverty Level of Resident Population

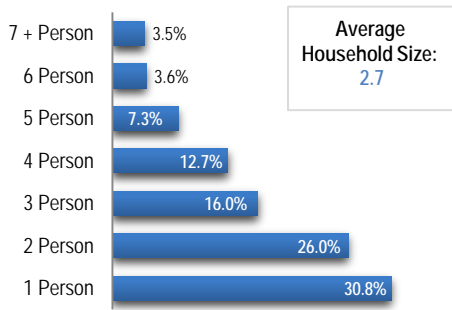


21.2% of households had income in the past 12 months below poverty level

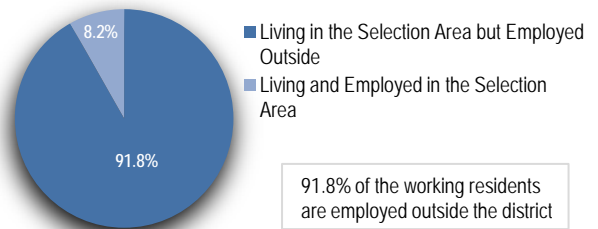
Means of Transportation to Work (Workers 16 and older)

Means of Transportation	Number	Share
Drove alone	73,797	60.8%
Carpooled	12,323	10.2%
Public transportation	24,463	20.2%
<i>Bus or trolley bus</i>	23,763	19.6%
<i>Subway or elevated</i>	586	0.5%
<i>Railroad</i>	71	0.1%
<i>Ferryboat</i>	43	0.0%
Taxicab	140	0.1%
Motorcycle	193	0.2%
Bicycle	870	0.7%
Walked	3,124	2.6%
Other means	1,337	1.1%
Worked at home	5,081	4.2%

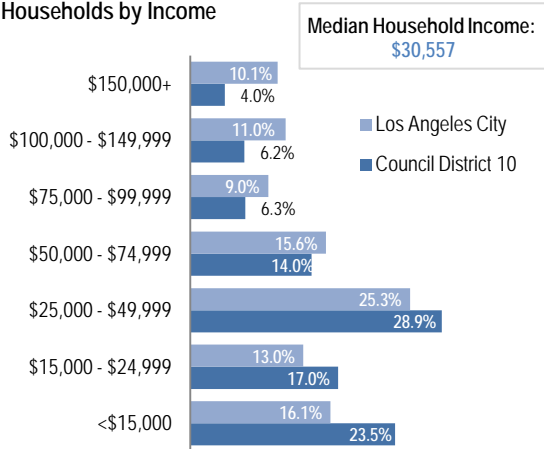
Households by Size



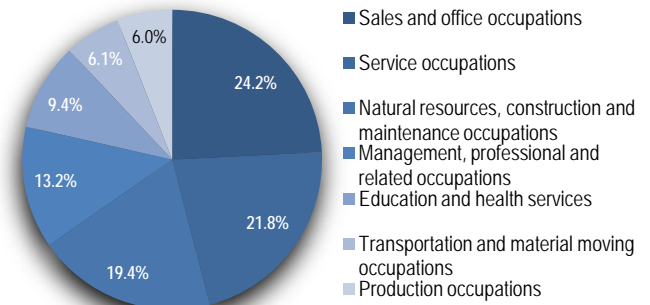
In-Area Labor Force Efficiency



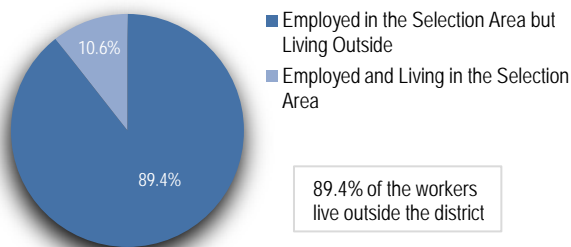
Households by Income



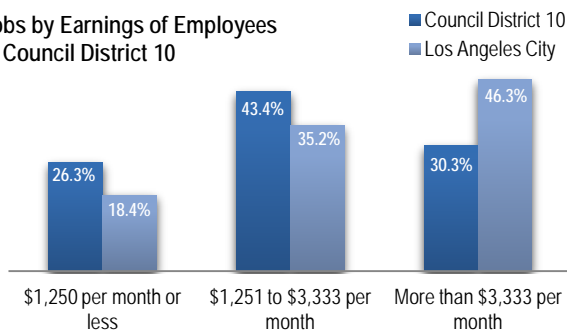
Resident Employment by Occupation
Population Age 16+ Years



In-Area Employment Efficiency



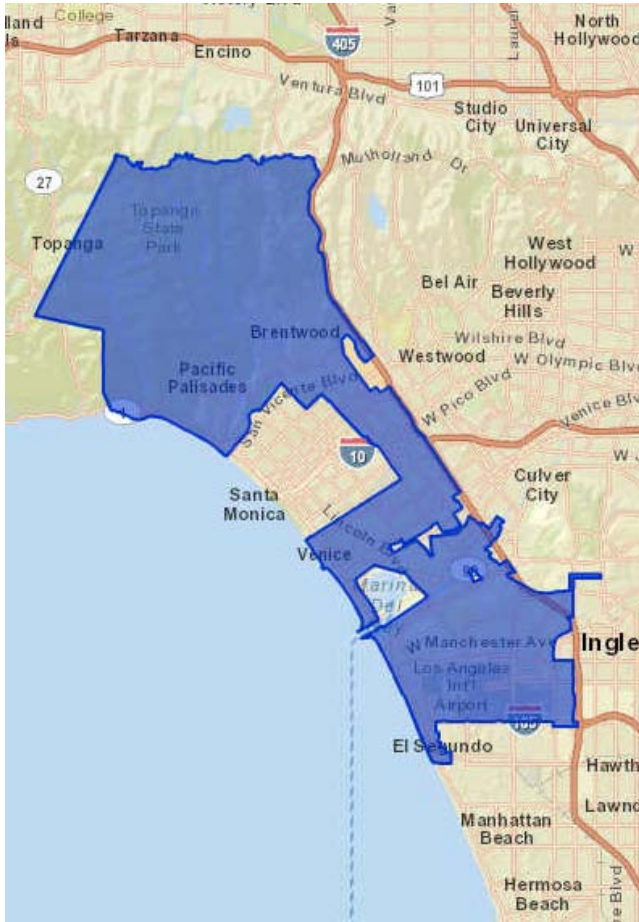
Jobs by Earnings of Employees
In Council District 10



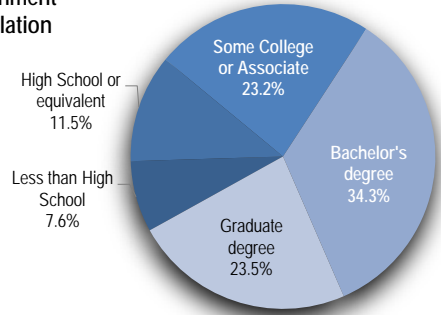
Council District 10 Employment
by NAICS Industry Sector (2011)

Industry Sector	Number	Share
Agriculture, Forestry, Fishing and Hunting	23	0.0%
Mining, Quarrying, and Oil and Gas Extraction	24	0.0%
Utilities	77	0.1%
Construction	1,529	2.5%
Manufacturing	2,685	4.4%
Wholesale Trade	3,076	5.0%
Retail Trade	6,007	9.8%
Transportation and Warehousing	396	0.6%
Information	3,932	6.4%
Finance and Insurance	2,280	3.7%
Real Estate and Rental and Leasing	1,235	2.0%
Professional, Scientific, and Technical Services	4,872	8.0%
Management of Companies and Enterprises	1,554	2.5%
Admin. & Support, Waste Mgmt and Remediation	8,216	13.5%
Educational Services	5,467	9.0%
Health Care and Social Assistance	6,860	11.2%
Arts, Entertainment, and Recreation	1,232	2.0%
Accommodation and Food Services	5,670	9.3%
Other Services (excluding Public Administration)	5,746	9.4%
Public Administration	171	0.3%
Total	61,052	100%

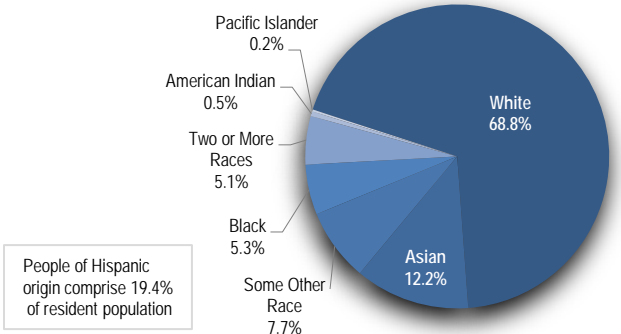
Council District 11



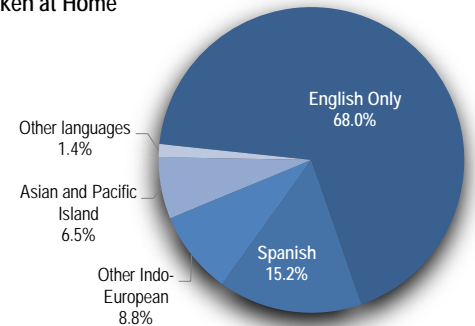
Educational Attainment of Resident Population Age 25+ Years



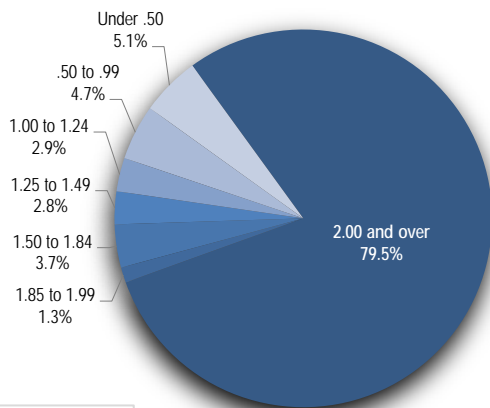
Race and Ethnicity of Resident Population



Language Spoken at Home Age 5+ Years



Ratio of Income to Poverty Level of Resident Population

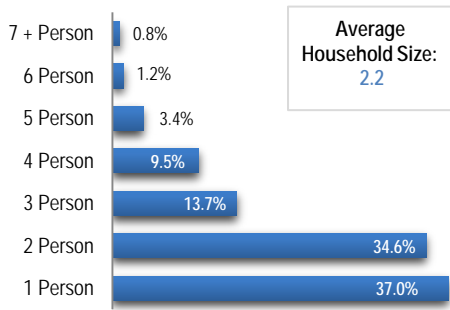


8.6% of households had income in the past 12 months below poverty level

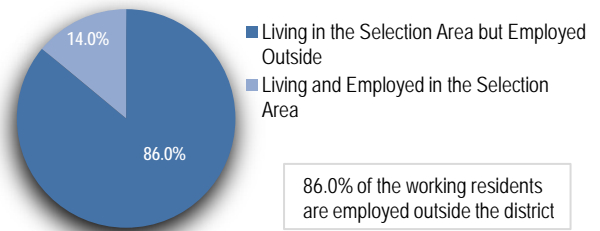
Means of Transportation to Work (Workers 16 and older)

Means of Transportation	Number	Share
Drove alone	103,069	74.6%
Carpooled	8,726	6.3%
Public transportation	5,570	4.0%
<i>Bus or trolley bus</i>	5,424	3.9%
<i>Streetcar or trolley car</i>	22	0.0%
<i>Subway or elevated</i>	96	0.1%
<i>Railroad</i>	28	0.0%
Taxicab	227	0.2%
Motorcycle	563	0.4%
Bicycle	1,987	1.4%
Walked	4,997	3.6%
Other means	1,002	0.7%
Worked at home	12,021	8.7%

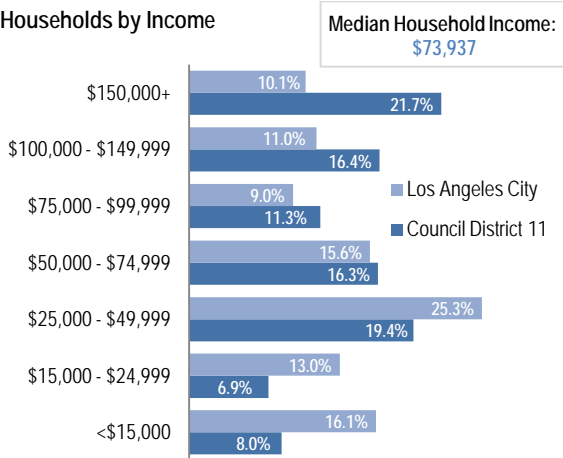
Households by Size



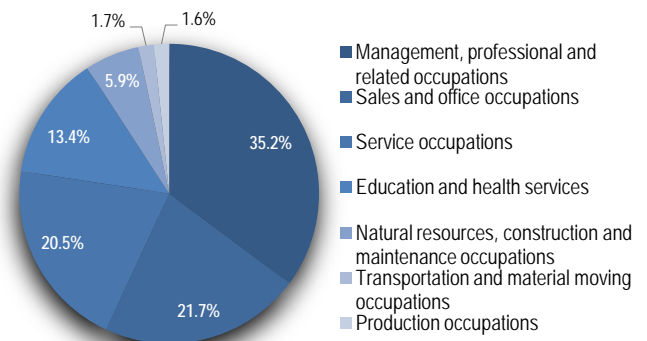
In-Area Labor Force Efficiency



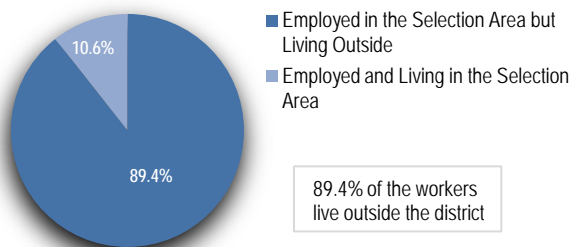
Households by Income



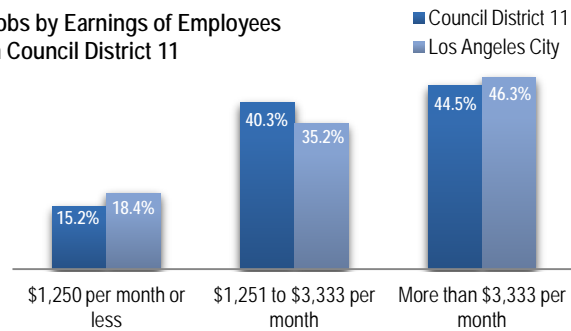
**Resident Employment by Occupation
Population Age 16+ Years**



In-Area Employment Efficiency



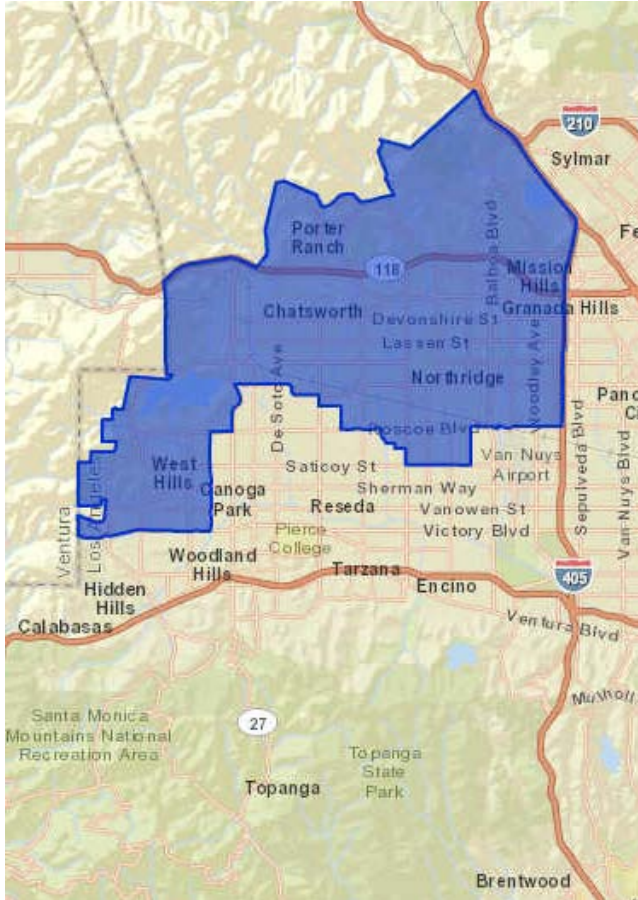
**Jobs by Earnings of Employees
In Council District 11**



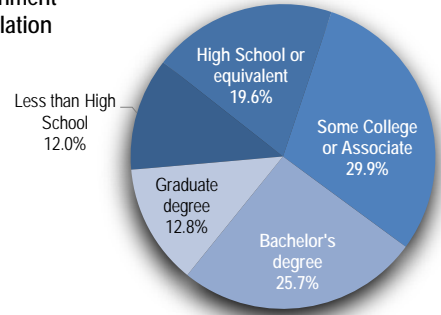
**Council District 11 Employment
by NAICS Industry Sector (2011)**

Industry Sector	Number	Share
Agriculture, Forestry, Fishing and Hunting	1,591	1.1%
Mining, Quarrying, and Oil and Gas Extraction	-	0.0%
Utilities	70	0.1%
Construction	2,694	1.9%
Manufacturing	3,309	2.4%
Wholesale Trade	3,484	2.5%
Retail Trade	11,794	8.5%
Transportation and Warehousing	27,786	19.9%
Information	6,693	4.8%
Finance and Insurance	3,405	2.4%
Real Estate and Rental and Leasing	5,929	4.3%
Professional, Scientific, and Technical Services	16,831	12.1%
Management of Companies and Enterprises	2,481	1.8%
Admin. & Support, Waste Mgmt and Remediation	7,692	5.5%
Educational Services	8,276	5.9%
Health Care and Social Assistance	8,324	6.0%
Arts, Entertainment, and Recreation	3,612	2.6%
Accommodation and Food Services	18,276	13.1%
Other Services (excluding Public Administration)	6,651	4.8%
Public Administration	602	0.4%
Total	139,500	100%

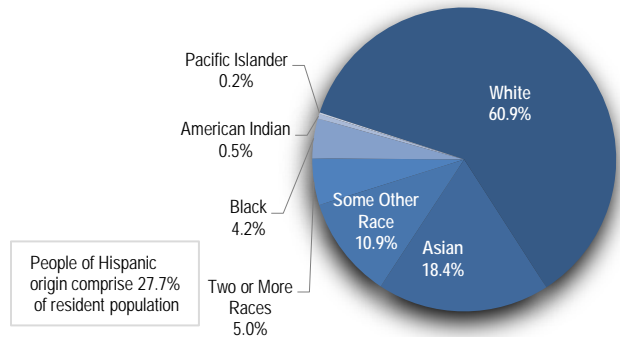
Council District 12



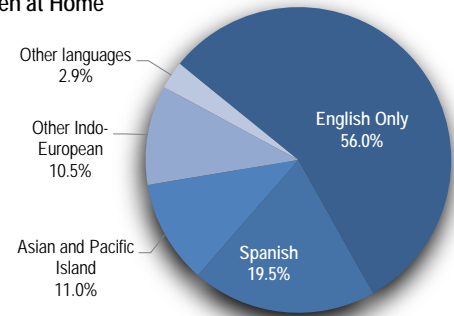
Educational Attainment of Resident Population Age 25+ Years



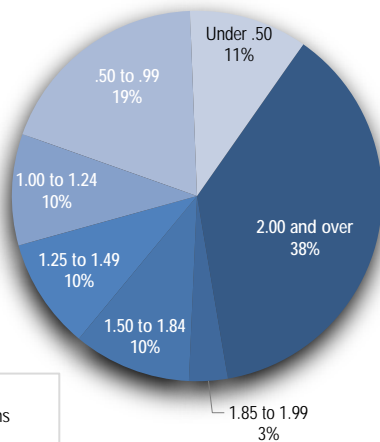
Race and Ethnicity of Resident Population



Language Spoken at Home Age 5+ Years



Ratio of Income to Poverty Level of Resident Population

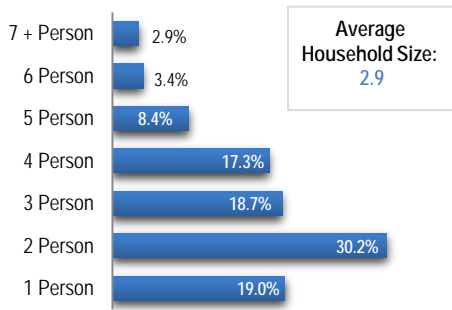


7.0% of households had income in the past 12 months below poverty level

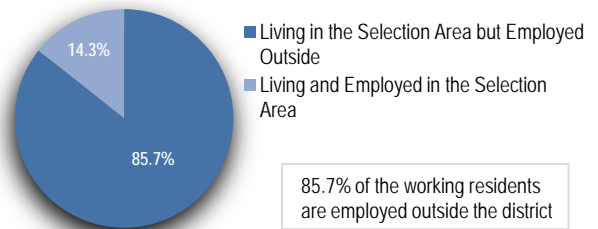
Means of Transportation to Work (Workers 16 and older)

Means of Transportation	Number	Share
Drove alone	95,848	77.6%
Carpooled	13,654	11.1%
Public transportation	3,449	2.8%
<i>Bus or trolley bus</i>	2,724	2.2%
<i>Streetcar or trolley car</i>	-	0.0%
<i>Subway or elevated</i>	213	0.2%
<i>Railroad</i>	512	0.4%
Taxicab	49	0.0%
Motorcycle	345	0.3%
Bicycle	601	0.5%
Walked	2,018	1.6%
Other means	1,049	0.8%
Worked at home	6,468	5.2%

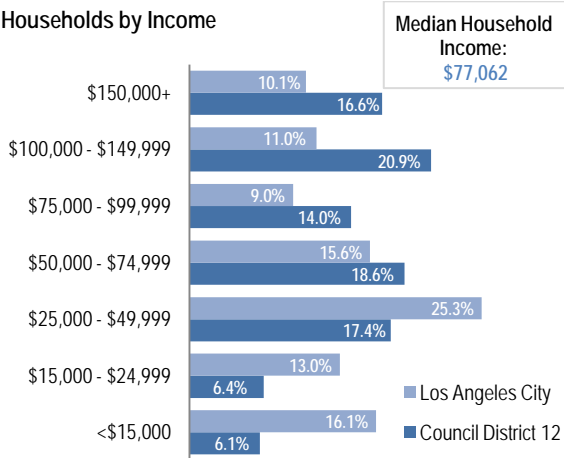
Households by Size



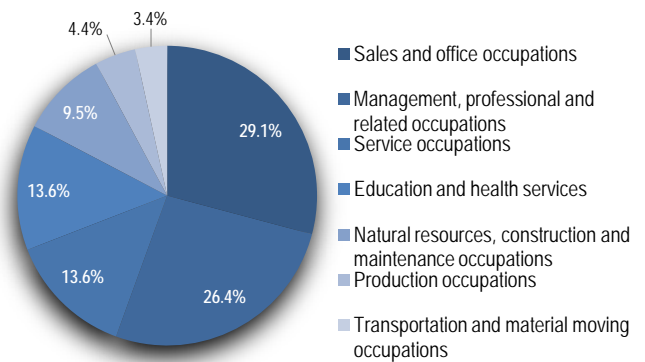
In-Area Labor Force Efficiency



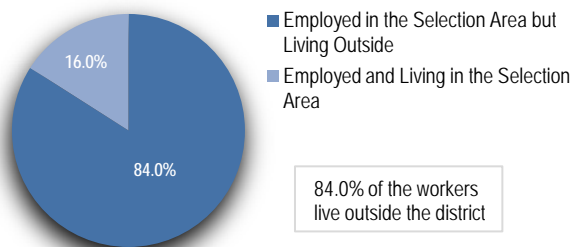
Households by Income



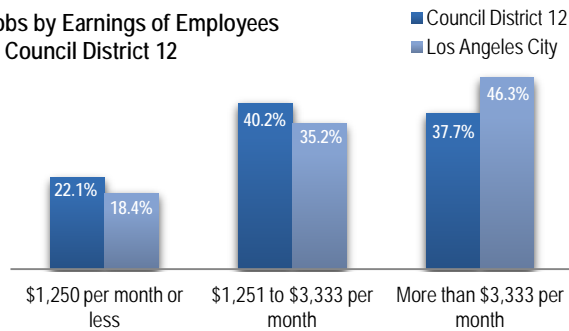
**Resident Employment by Occupation
Population Age 16+ Years**



In-Area Employment Efficiency



**Jobs by Earnings of Employees
In Council District 12**



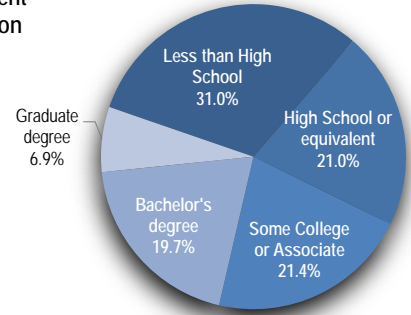
**Council District 12 Employment
by NAICS Industry Sector (2011)**

Industry Sector	Number	Share
Agriculture, Forestry, Fishing and Hunting	44	0.0%
Mining, Quarrying, and Oil and Gas Extraction	17	0.0%
Utilities	271	0.3%
Construction	3,775	4.1%
Manufacturing	13,047	14.3%
Wholesale Trade	5,694	6.2%
Retail Trade	11,704	12.8%
Transportation and Warehousing	915	1.0%
Information	2,241	2.5%
Finance and Insurance	5,442	6.0%
Real Estate and Rental and Leasing	1,048	1.2%
Professional, Scientific, and Technical Services	4,321	4.7%
Management of Companies and Enterprises	901	1.0%
Admin. & Support, Waste Mgmt and Remediation	5,752	6.3%
Educational Services	9,489	10.4%
Health Care and Social Assistance	13,676	15.0%
Arts, Entertainment, and Recreation	709	0.8%
Accommodation and Food Services	6,912	7.6%
Other Services (excluding Public Administration)	4,743	5.2%
Public Administration	406	0.4%
Total	91,107	100%

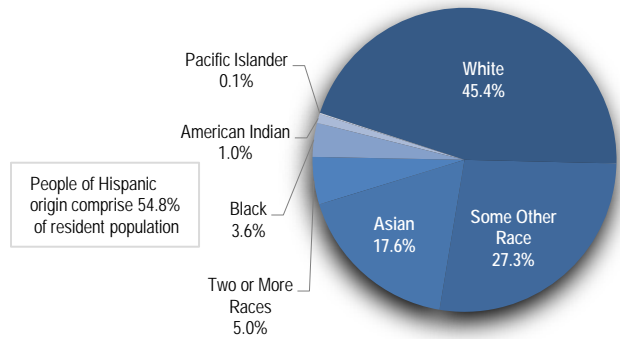
Council District 13



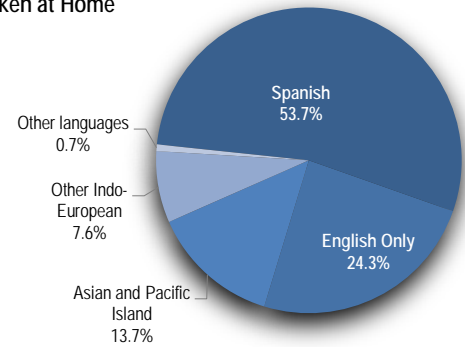
Educational Attainment of Resident Population Age 25+ Years



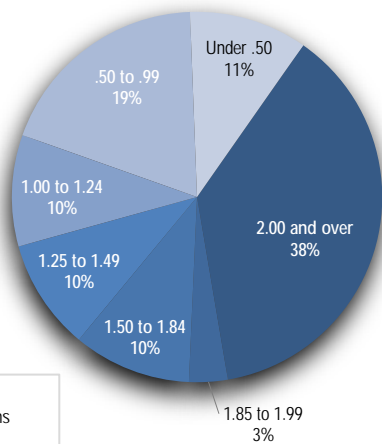
Race and Ethnicity of Resident Population



Language Spoken at Home Age 5+ Years



Ratio of Income to Poverty Level of Resident Population

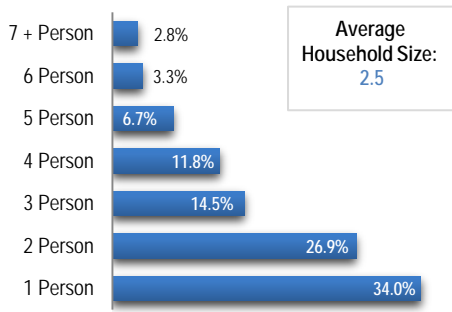


21.5% of households had income in the past 12 months below poverty level

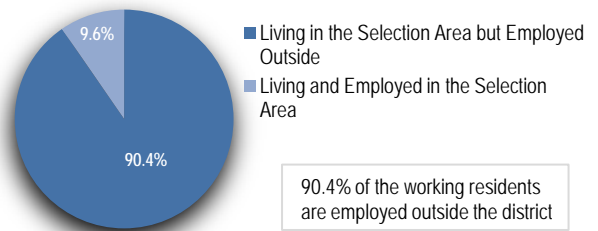
Means of Transportation to Work (Workers 16 and older)

	Number	Share
Drove alone	72,684	55.8%
Carpooled	12,744	9.8%
Public transportation	29,172	22.4%
<i>Bus or trolley bus</i>	27,149	20.9%
<i>Streetcar or trolley car</i>	242	0.2%
<i>Subway or elevated</i>	1,611	1.2%
<i>Railroad</i>	145	0.1%
<i>Ferryboat</i>	24	0.0%
Taxicab	147	0.1%
Motorcycle	391	0.3%
Bicycle	1,293	1.0%
Walked	6,601	5.1%
Other means	1,176	0.9%
Worked at home	5,945	4.6%

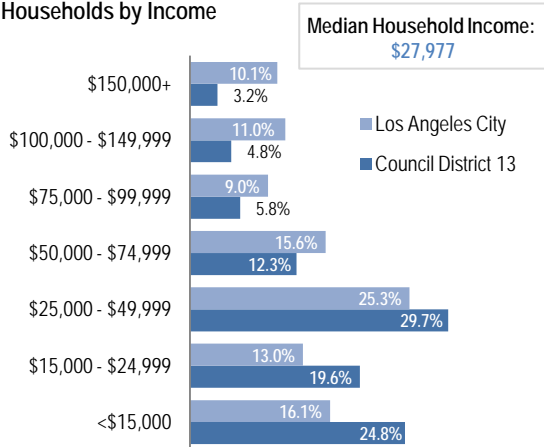
Households by Size



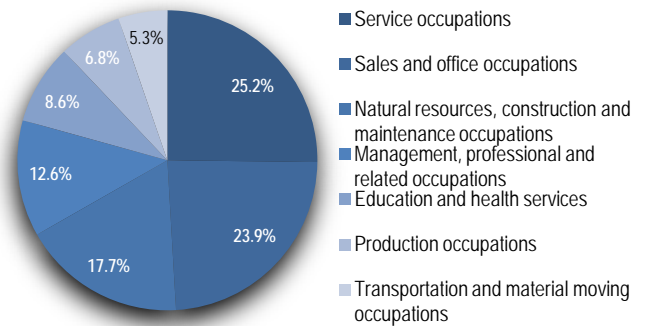
In-Area Labor Force Efficiency



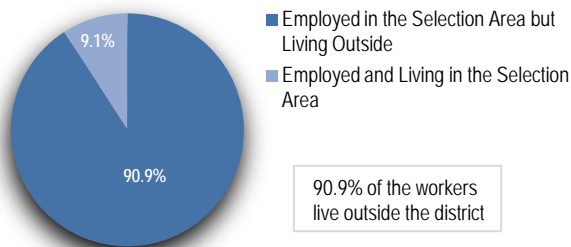
Households by Income



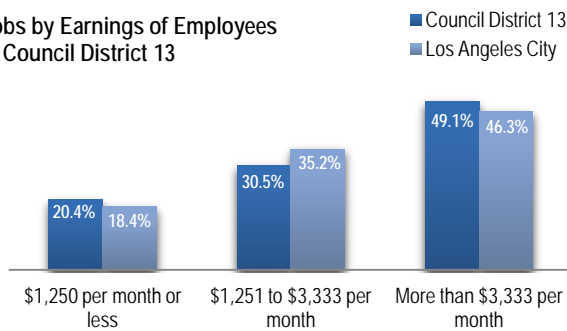
Resident Employment by Occupation
Population Age 16+ Years



In-Area Employment Efficiency



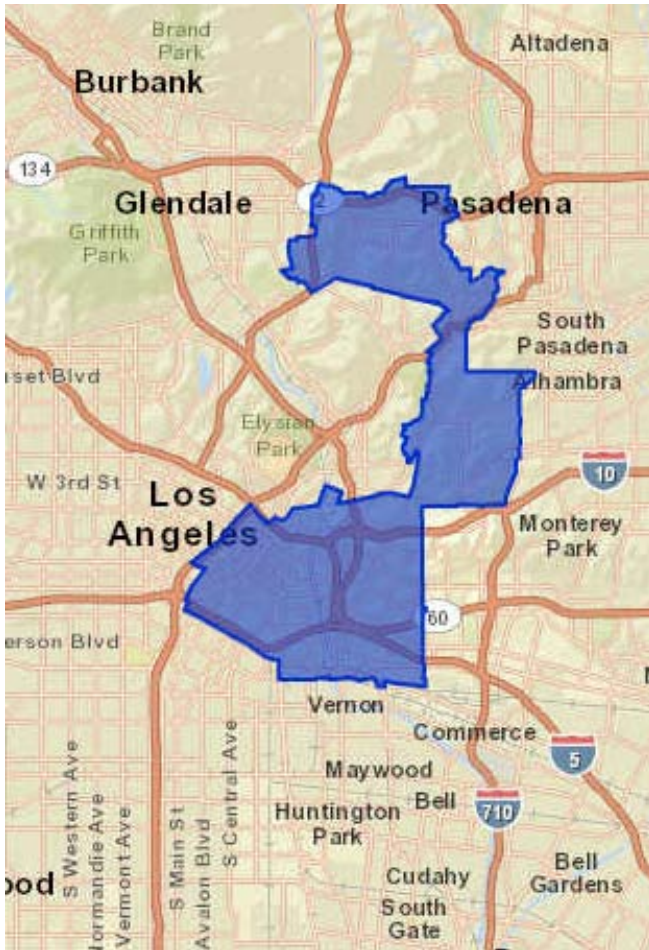
Jobs by Earnings of Employees In Council District 13



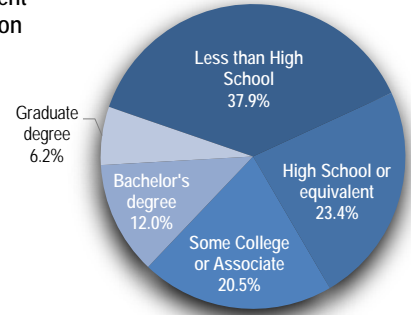
Council District 13 Employment by NAICS Industry Sector (2011)

Industry Sector	Number	Share
Agriculture, Forestry, Fishing and Hunting	23	0.0%
Mining, Quarrying, and Oil and Gas Extraction	97	0.1%
Utilities	223	0.2%
Construction	1,354	1.5%
Manufacturing	3,981	4.3%
Wholesale Trade	1,455	1.6%
Retail Trade	7,939	8.5%
Transportation and Warehousing	1,371	1.5%
Information	11,341	12.2%
Finance and Insurance	1,288	1.4%
Real Estate and Rental and Leasing	1,813	1.9%
Professional, Scientific, and Technical Services	5,623	6.0%
Management of Companies and Enterprises	1,380	1.5%
Admin. & Support, Waste Mgmt and Remediation	2,642	2.8%
Educational Services	6,909	7.4%
Health Care and Social Assistance	27,515	29.5%
Arts, Entertainment, and Recreation	1,554	1.7%
Accommodation and Food Services	8,603	9.2%
Other Services (excluding Public Administration)	7,363	7.9%
Public Administration	667	0.7%
Total	93,141	100%

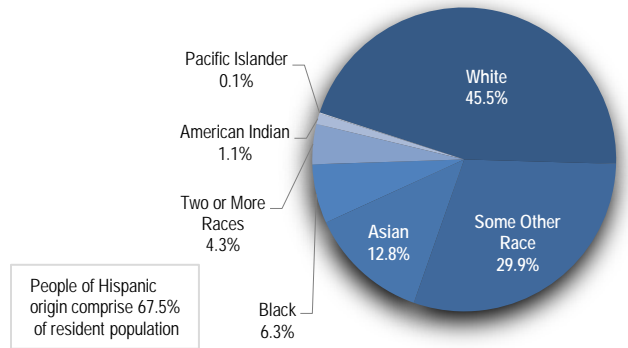
Council District 14



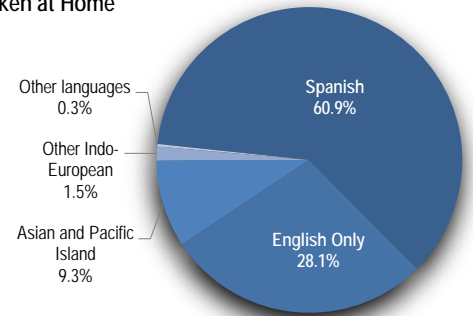
Educational Attainment of Resident Population Age 25+ Years



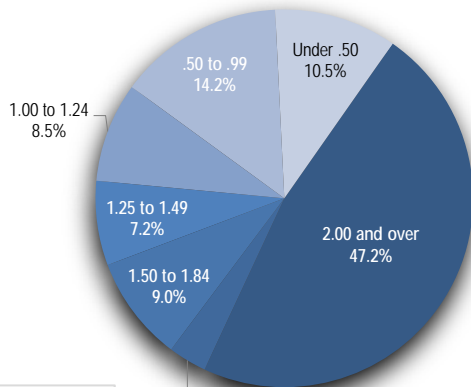
Race and Ethnicity of Resident Population



Language Spoken at Home Age 5+ Years



Ratio of Income to Poverty Level of Resident Population

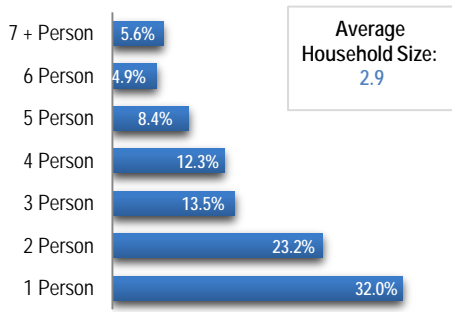


22.7% of households had income in the past 12 months below poverty level

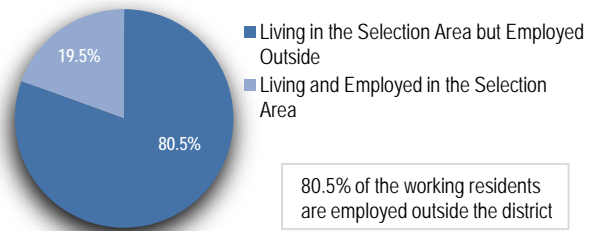
Means of Transportation to Work (Workers 16 and older)

Means of Transportation	Number	Share
Drove alone	58,539	61.2%
Carpooled	12,806	13.4%
Public transportation	13,013	13.6%
<i>Bus or trolley bus</i>	12,473	13.0%
<i>Streetcar or trolley car</i>	35	0.0%
<i>Subway or elevated</i>	394	0.4%
<i>Railroad</i>	110	0.1%
Taxicab	78	0.1%
Motorcycle	300	0.3%
Bicycle	364	0.4%
Walked	5,896	6.2%
Other means	1,450	1.5%
Worked at home	3,191	3.3%

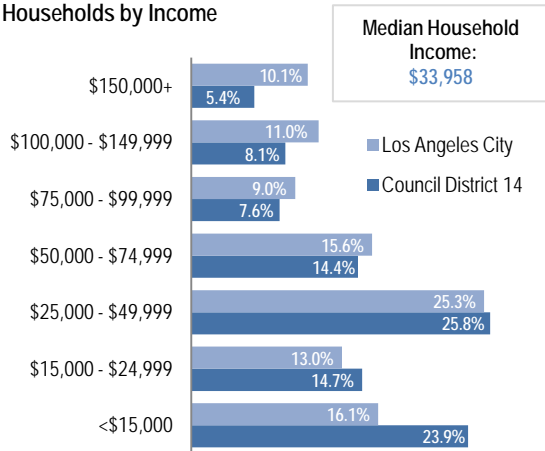
Households by Size



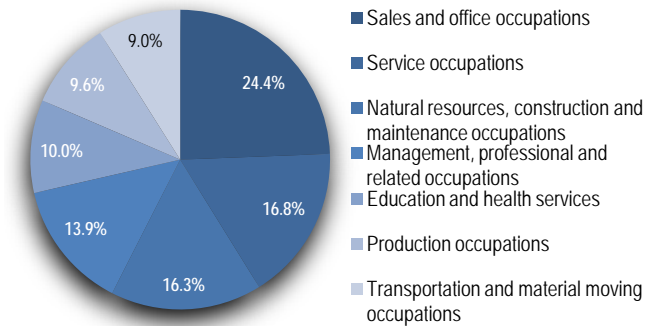
In-Area Labor Force Efficiency



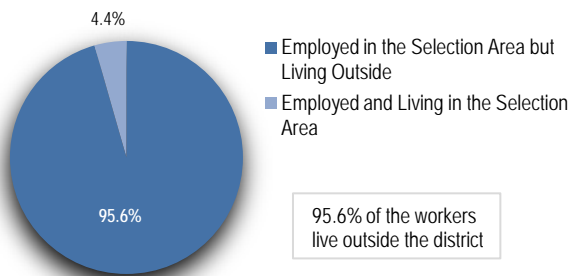
Households by Income



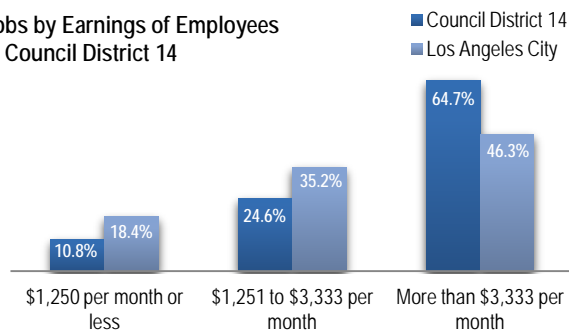
Resident Employment by Occupation
Population Age 16+ Years



In-Area Employment Efficiency



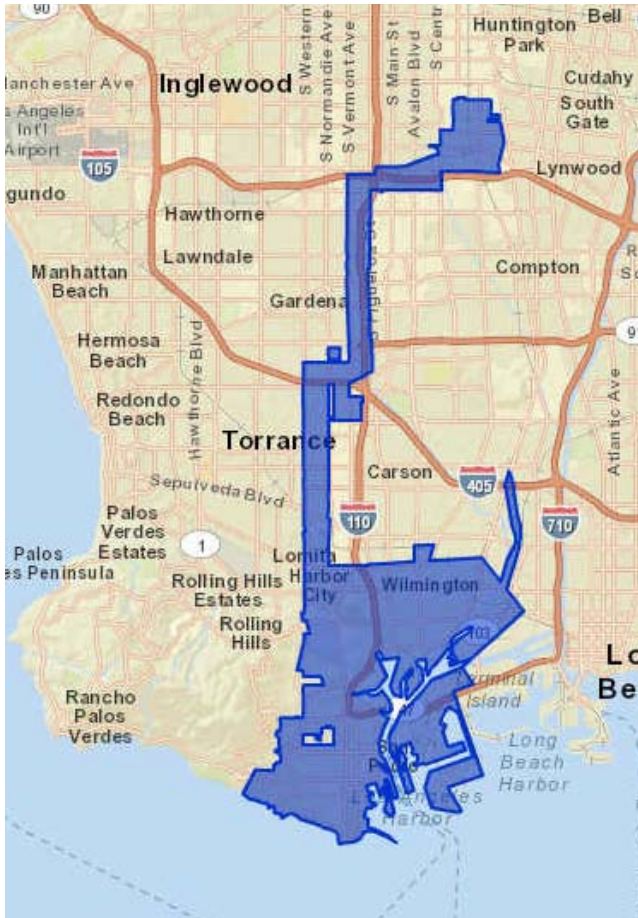
Jobs by Earnings of Employees
In Council District 14



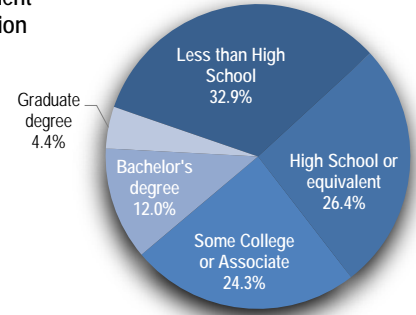
Council District 14 Employment by NAICS Industry Sector (2011)

Industry Sector	Number	Share
Agriculture, Forestry, Fishing and Hunting	65	0.0%
Mining, Quarrying, and Oil and Gas Extraction	163	0.0%
Utilities	13,927	4.2%
Construction	2,902	0.9%
Manufacturing	16,224	4.9%
Wholesale Trade	23,864	7.2%
Retail Trade	14,067	4.2%
Transportation and Warehousing	12,844	3.9%
Information	7,081	2.1%
Finance and Insurance	19,169	5.8%
Real Estate and Rental and Leasing	3,716	1.1%
Professional, Scientific, and Technical Services	29,565	8.9%
Management of Companies and Enterprises	6,670	2.0%
Admin. & Support, Waste Mgmt and Remediation	7,753	2.3%
Educational Services	12,504	3.8%
Health Care and Social Assistance	22,100	6.6%
Arts, Entertainment, and Recreation	10,264	3.1%
Accommodation and Food Services	15,634	4.7%
Other Services (excluding Public Administration)	20,668	6.2%
Public Administration	93,578	28.1%
Total	332,758	100%

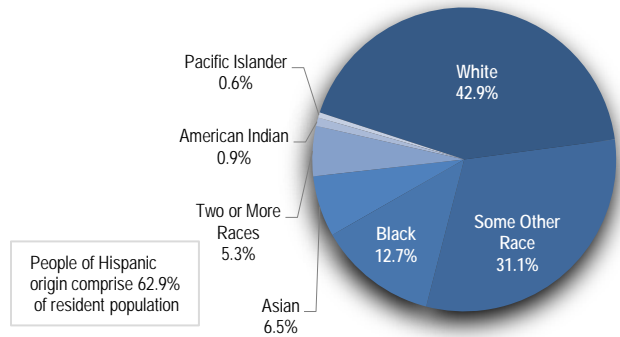
Council District 15



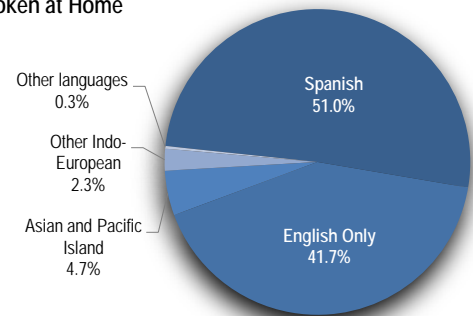
Educational Attainment of Resident Population Age 25+ Years



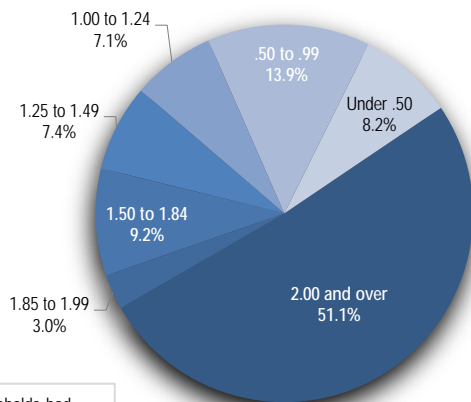
Race and Ethnicity of Resident Population



Language Spoken at Home Age 5+ Years



Ratio of Income to Poverty Level of Resident Population

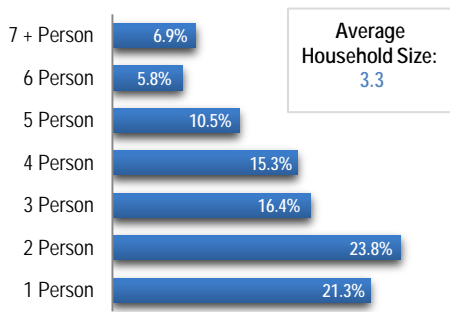


19.5% of households had income in the past 12 months below poverty level

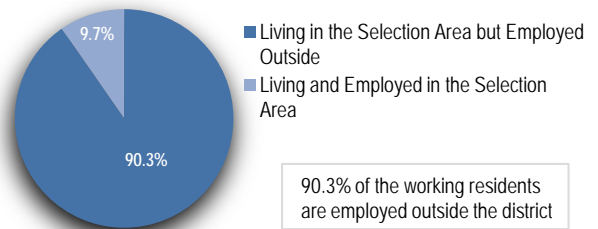
Means of Transportation to Work (Workers 16 and older)

Means of Transportation	Number	Share
Drove alone	73,676	72.0%
Carpooled	14,100	13.8%
Public transportation	6,821	6.7%
<i>Bus or trolley bus</i>	6,570	6.4%
<i>Streetcar or trolley car</i>	54	0.1%
<i>Subway or elevated</i>	114	0.1%
<i>Railroad</i>	83	0.1%
Taxicab	22	0.0%
Motorcycle	298	0.3%
Bicycle	677	0.7%
Walked	2,789	2.7%
Other means	1,194	1.2%
Worked at home	2,793	2.7%

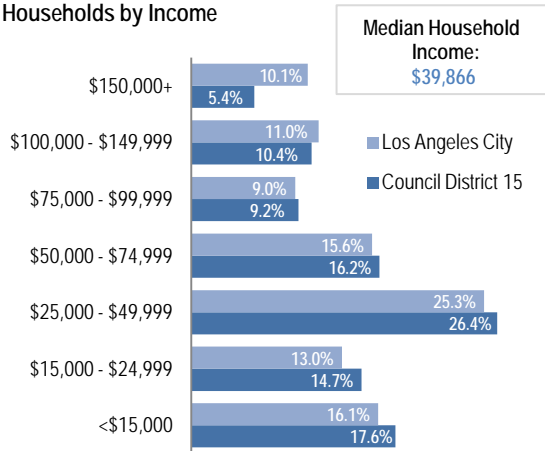
Households by Size



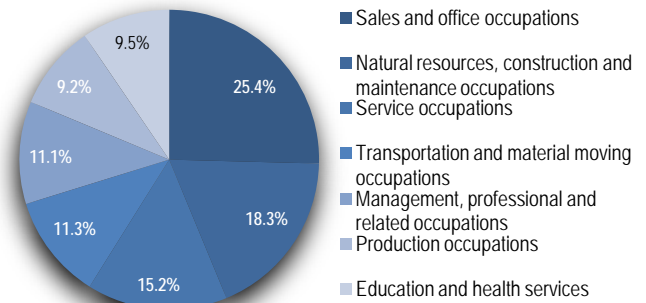
In-Area Labor Force Efficiency



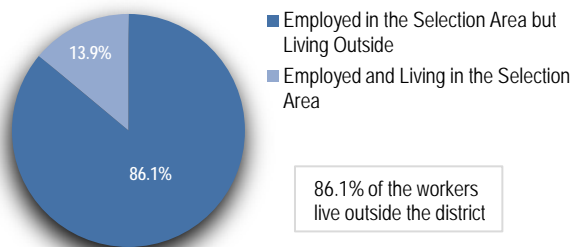
Households by Income



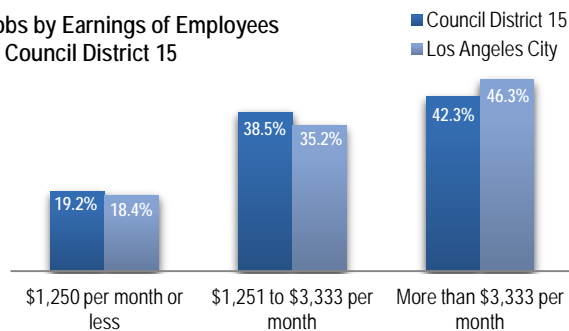
Resident Employment by Occupation
Population Age 16+ Years



In-Area Employment Efficiency



Jobs by Earnings of Employees
In Council District 15



Council District 15 Employment
by NAICS Industry Sector (2011)

NAICS Industry Sector	Number	Share
Agriculture, Forestry, Fishing and Hunting	73	0.1%
Mining, Quarrying, and Oil and Gas Extraction	33	0.1%
Utilities	50	0.1%
Construction	2,398	4.4%
Manufacturing	7,680	14.1%
Wholesale Trade	4,992	9.2%
Retail Trade	5,222	9.6%
Transportation and Warehousing	4,754	8.8%
Information	688	1.3%
Finance and Insurance	998	1.8%
Real Estate and Rental and Leasing	562	1.0%
Professional, Scientific, and Technical Services	2,364	4.4%
Management of Companies and Enterprises	1,220	2.2%
Admin. & Support, Waste Mgmt and Remediation	4,827	8.9%
Educational Services	4,538	8.4%
Health Care and Social Assistance	6,293	11.6%
Arts, Entertainment, and Recreation	253	0.5%
Accommodation and Food Services	3,233	6.0%
Other Services (excluding Public Administration)	3,936	7.3%
Public Administration	168	0.3%
Total	54,282	100%

A3 Planning Areas of the City of Los Angeles

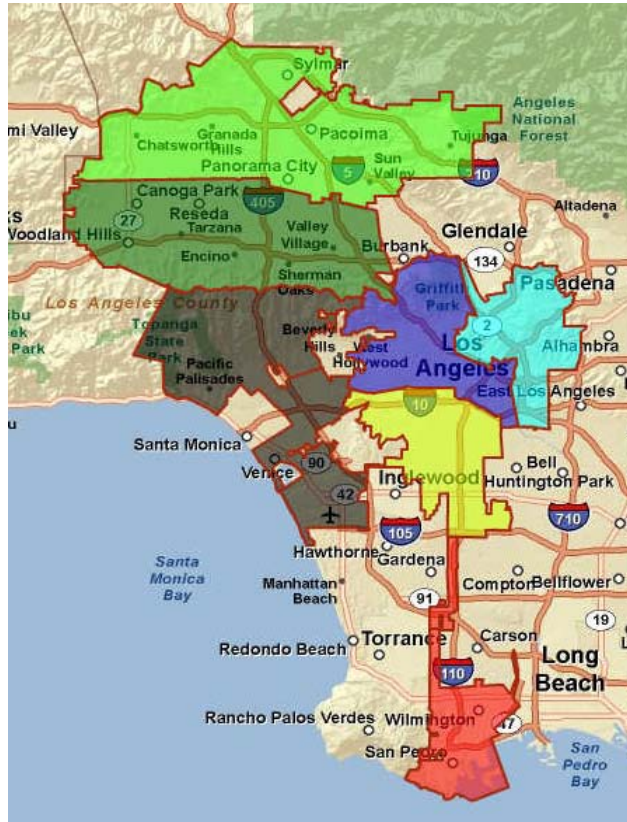
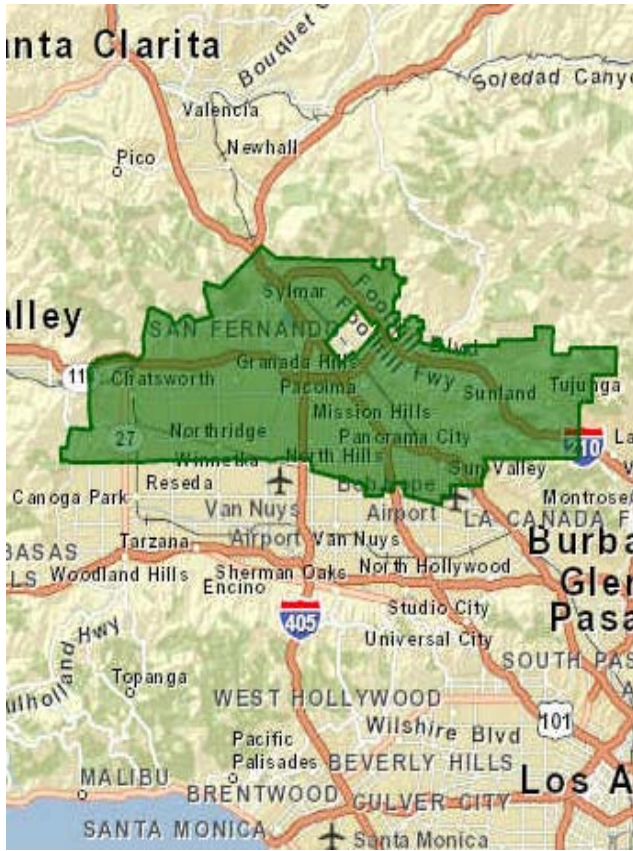


Exhibit A-7
Population and Income (2012)
Planning Areas of the City of Los Angeles

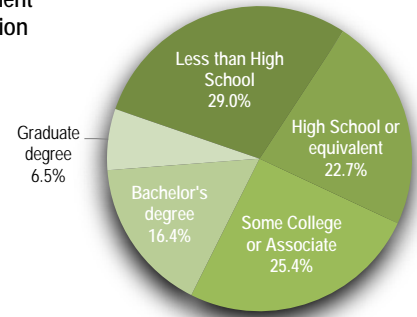
	Population	Households	Average Household Size	Median Household Income	Per Capita Income
North Valley Planning Area	701,304	199,676	3.46	\$ 55,555	\$ 21,604
South Valley Planning Area	738,541	277,686	2.64	54,009	29,830
West Los Angeles Planning Area	413,466	184,223	2.15	72,620	47,663
Central Los Angeles Planning Area	656,885	279,119	2.26	31,928	25,139
East Los Angeles Planning Area	394,309	123,707	3.13	37,658	17,978
South Los Angeles Planning Area	730,119	203,402	3.52	29,168	12,884
Harbor Planning Area	197,751	64,072	3.04	43,886	20,407
City of Los Angeles	3,833,473	1,332,301	2.81	\$ 44,116	\$ 24,516

Sources: ESRI; Census 2010

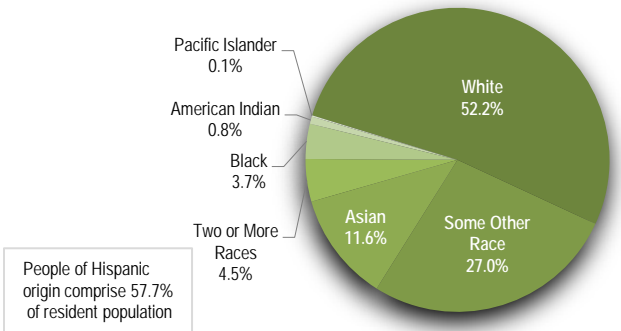
North Valley Planning Area



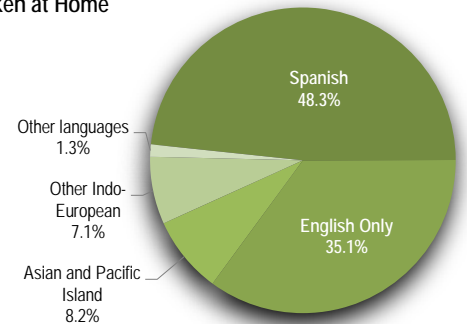
Educational Attainment of Resident Population Age 25+ Years



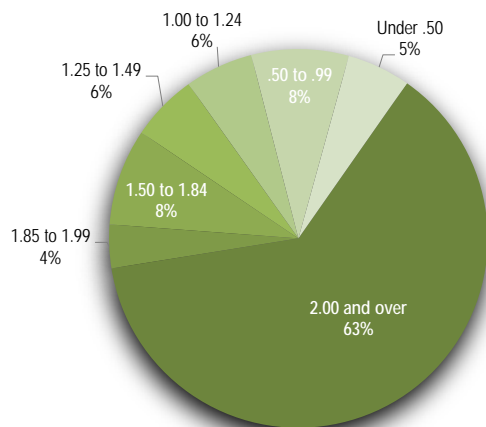
Race and Ethnicity of Resident Population



Language Spoken at Home Age 5+ Years



Ratio of Income to Poverty Level of Resident Population

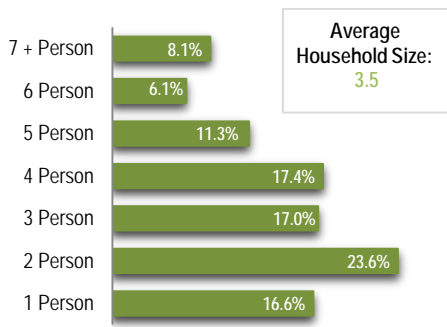


12.1% of the population have a household income under the poverty threshold.

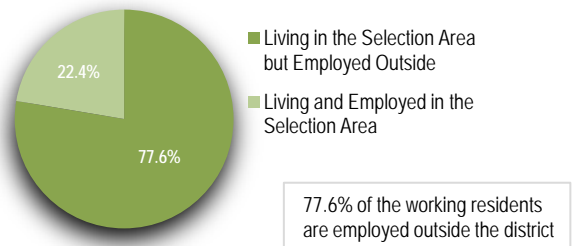
Means of Transportation to Work (Workers 16 and older)

Means of Transportation	Number	Share
Drove alone	223,086	72.2%
Carpooled	46,291	15.0%
Public transportation	15,709	5.1%
<i>Bus or trolley bus</i>	14,213	4.6%
<i>Streetcar or trolley car</i>	11	0.0%
<i>Subway or elevated</i>	776	0.3%
<i>Railroad</i>	709	0.2%
<i>Ferryboat</i>	0	0.0%
Taxicab	114	0.0%
Motorcycle	772	0.3%
Bicycle	1,408	0.5%
Walked	6,479	2.1%
Other means	4,245	1.4%
Worked at home	10,666	3.5%

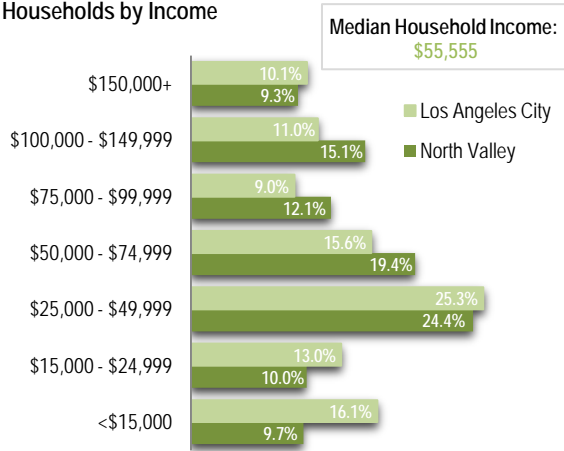
Households by Size



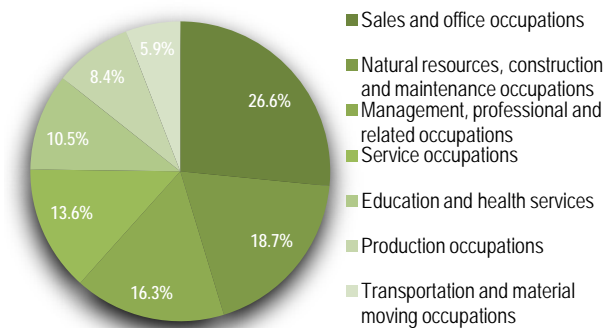
In-Area Labor Force Efficiency



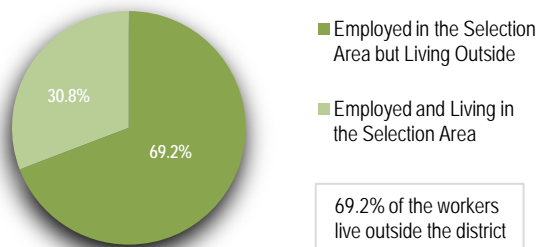
Households by Income



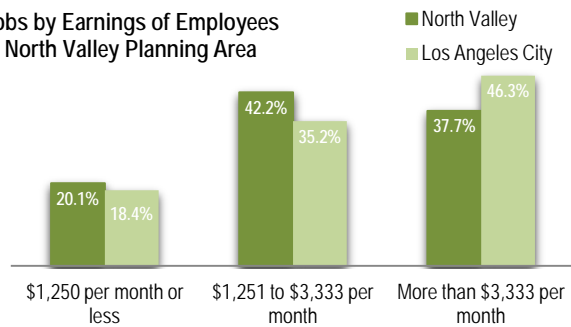
Resident Employment by Occupation
Population Age 16+ Years



In-Area Employment Efficiency



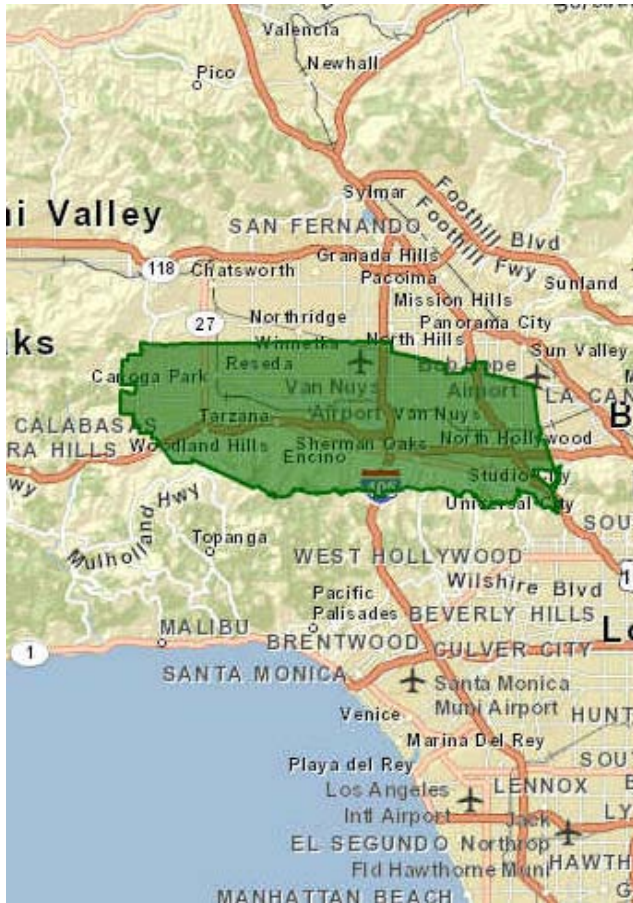
Jobs by Earnings of Employees
In North Valley Planning Area



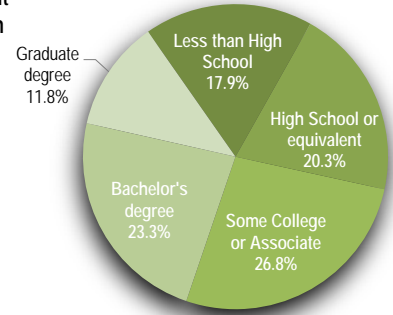
North Valley Planning Area Employment
by NAICS Industry Sector (2010)

Industry Sector	Number	Share
Agriculture, Forestry, Fishing and Hunting	291	0.2%
Mining, Quarrying, and Oil and Gas Extraction	100	0.1%
Utilities	335	0.2%
Construction	9,508	5.5%
Manufacturing	36,327	20.9%
Wholesale Trade	11,382	6.5%
Retail Trade	21,626	12.4%
Transportation and Warehousing	4,182	2.4%
Information	3,626	2.1%
Finance and Insurance	5,517	3.2%
Real Estate and Rental and Leasing	2,906	1.7%
Professional, Scientific, and Technical Services	5,773	3.3%
Management of Companies and Enterprises	1,563	0.9%
Admin. & Support, Waste Mgmt and Remediation	9,902	5.7%
Educational Services	17,304	10.0%
Health Care and Social Assistance	21,706	12.5%
Arts, Entertainment, and Recreation	947	0.5%
Accommodation and Food Services	9,945	5.7%
Other Services (excluding Public Administration)	9,823	5.6%
Public Administration	1,107	0.6%
Total	173,870	100%

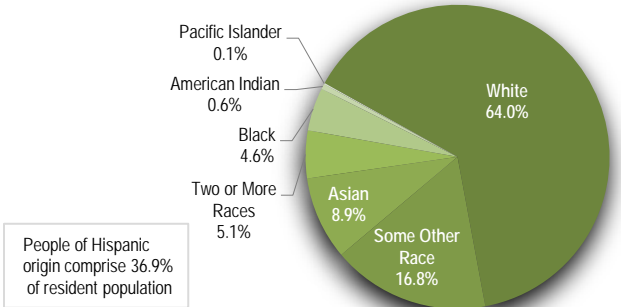
South Valley Planning Area



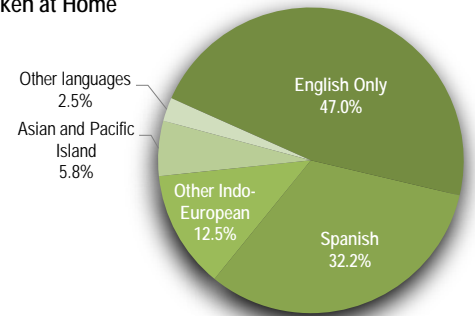
Educational Attainment of Resident Population Age 25+ Years



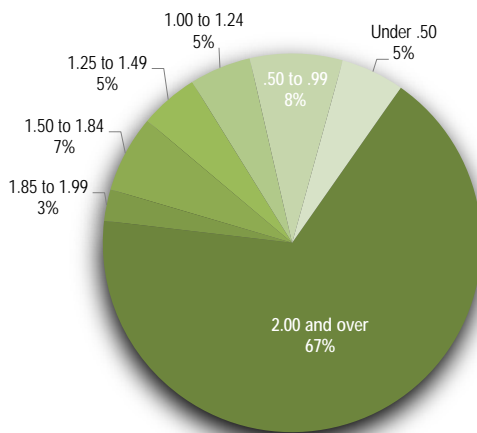
Race and Ethnicity of Resident Population



Language Spoken at Home Age 5+ Years



Ratio of Income to Poverty Level of Resident Population

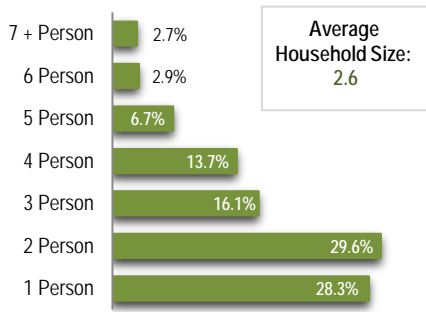


11.7% of the population have a household income under the poverty threshold.

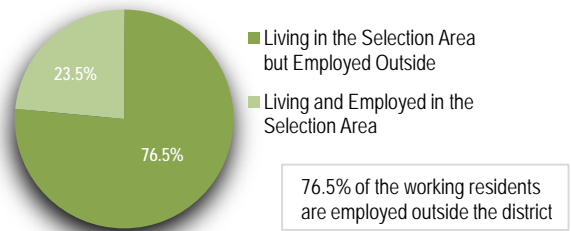
Means of Transportation to Work (Workers 16 and older)

Means of Transportation	Number	Share
Drove alone	263,650	74.2%
Carpooled	35,919	10.1%
Public transportation	20,703	5.8%
<i>Bus or trolley bus</i>	17,722	5.0%
<i>Streetcar or trolley car</i>	138	0.0%
<i>Subway or elevated</i>	2,324	0.7%
<i>Railroad</i>	519	0.1%
<i>Ferryboat</i>	0	0.0%
Taxicab	320	0.1%
Motorcycle	793	0.2%
Bicycle	2,794	0.8%
Walked	7,803	2.2%
Other means	3,749	1.1%
Worked at home	19,575	5.5%

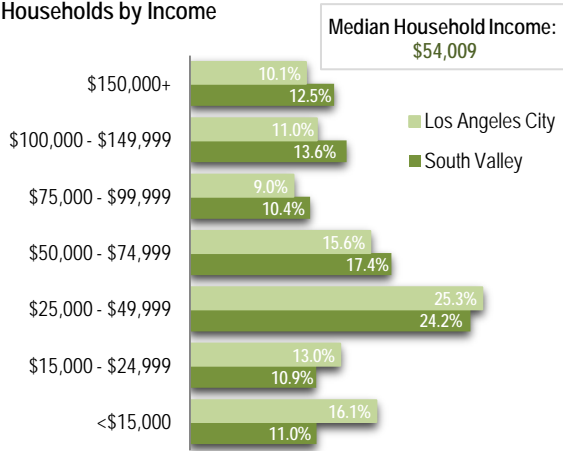
Households by Size



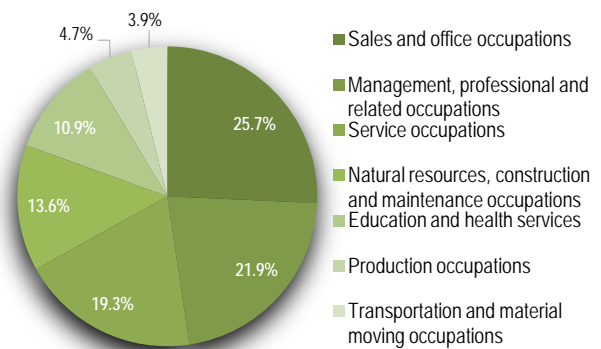
In-Area Labor Force Efficiency



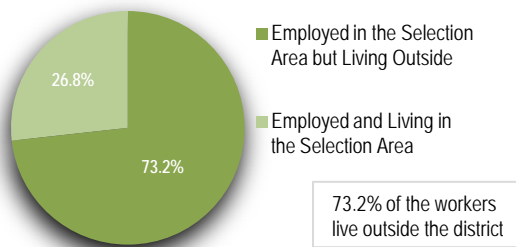
Households by Income



Resident Employment by Occupation
Population Age 16+ Years



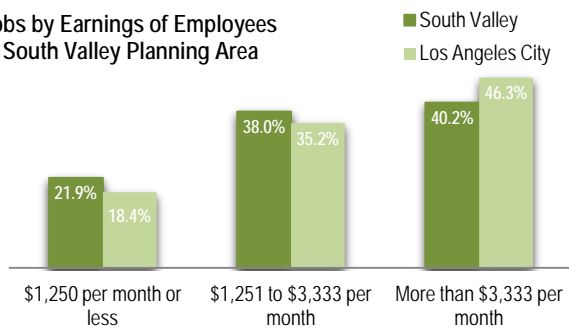
In-Area Employment Efficiency



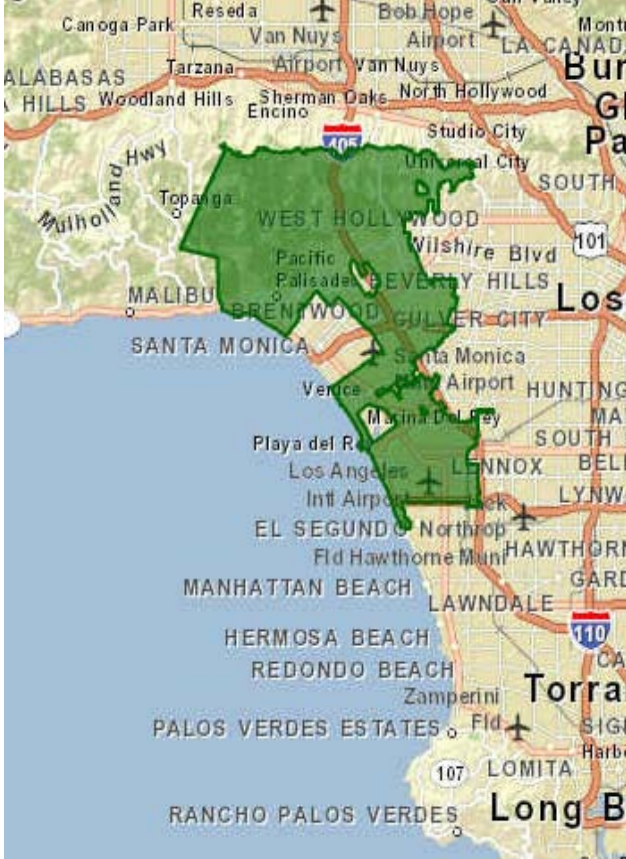
South Valley Planning Area Employment by NAICS Industry Sector (2010)

Industry Sector	Number	Share
Agriculture, Forestry, Fishing and Hunting	291	0.2%
Mining, Quarrying, and Oil and Gas Extraction	100	0.1%
Utilities	335	0.2%
Construction	9,508	5.5%
Manufacturing	36,327	20.9%
Wholesale Trade	11,382	6.5%
Retail Trade	21,626	12.4%
Transportation and Warehousing	4,182	2.4%
Information	3,626	2.1%
Finance and Insurance	5,517	3.2%
Real Estate and Rental and Leasing	2,906	1.7%
Professional, Scientific, and Technical Services	5,773	3.3%
Management of Companies and Enterprises	1,563	0.9%
Admin. & Support, Waste Mgmt and Remediation	9,902	5.7%
Educational Services	17,304	10.0%
Health Care and Social Assistance	21,706	12.5%
Arts, Entertainment, and Recreation	947	0.5%
Accommodation and Food Services	9,945	5.7%
Other Services (excluding Public Administration)	9,823	5.6%
Public Administration	1,107	0.6%
Total	236,942	100%

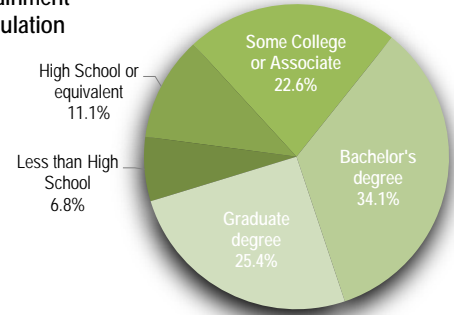
Jobs by Earnings of Employees In South Valley Planning Area



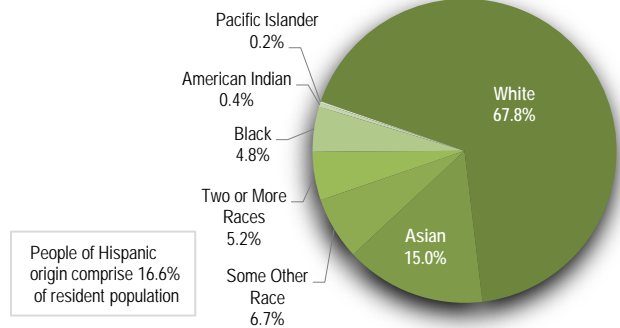
West Los Angeles Planning Area



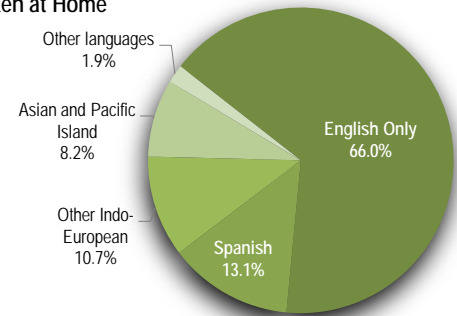
Educational Attainment of Resident Population Age 25+ Years



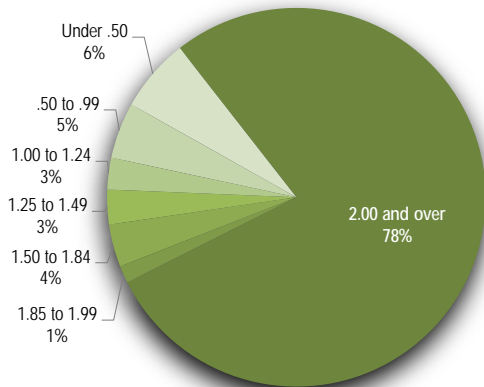
Race and Ethnicity of Resident Population



Language Spoken at Home Age 5+ Years



Ratio of Income to Poverty Level of Resident Population

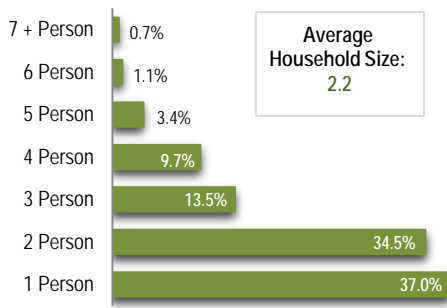


9.8% of the population have a household income under the poverty threshold.

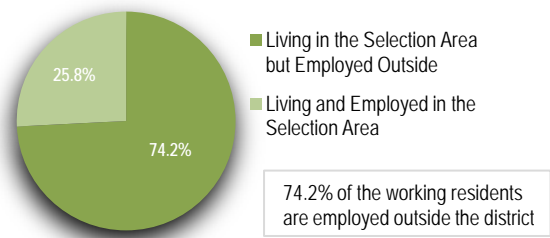
Means of Transportation to Work (Workers 16 and older)

Means of Transportation	Number	Share
Drove alone	157,688	72.9%
Carpooled	13,333	6.2%
Public transportation	9,760	4.5%
<i>Bus or trolley bus</i>	9,550	4.4%
<i>Streetcar or trolley car</i>	36	0.0%
<i>Subway or elevated</i>	146	0.1%
<i>Railroad</i>	28	0.0%
<i>Ferryboat</i>	0	0.0%
Taxicab	292	0.1%
Motorcycle	776	0.4%
Bicycle	2,799	1.3%
Walked	11,064	5.1%
Other means	1,689	0.8%
Worked at home	19,041	8.8%

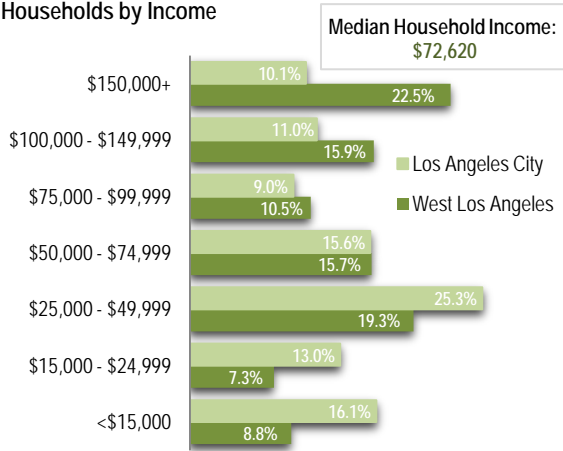
Households by Size



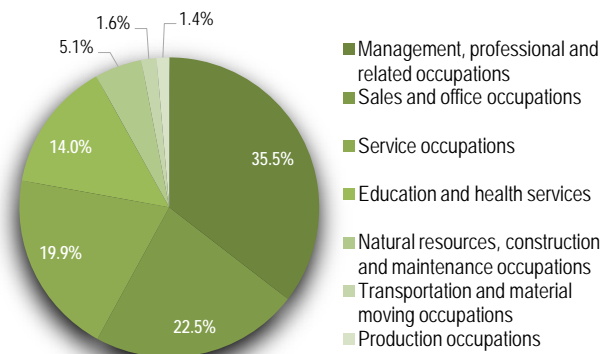
In-Area Labor Force Efficiency



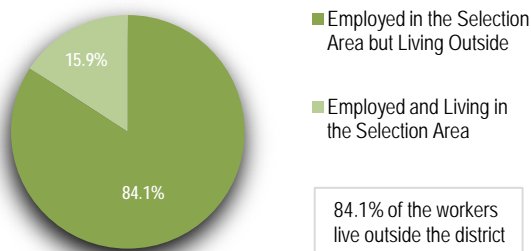
Households by Income



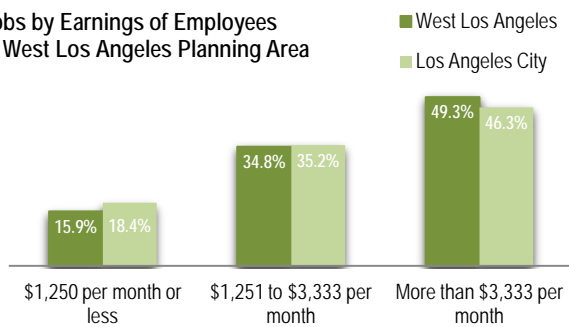
Resident Employment by Occupation
Population Age 16+ Years



In-Area Employment Efficiency



Jobs by Earnings of Employees
In West Los Angeles Planning Area



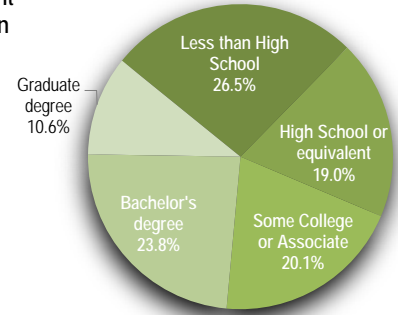
West Los Angeles Planning Area Employment
by NAICS Industry Sector (2010)

Industry Sector	Number	Share
Agriculture, Forestry, Fishing and Hunting	291	0.2%
Mining, Quarrying, and Oil and Gas Extraction	100	0.1%
Utilities	335	0.2%
Construction	9,508	5.5%
Manufacturing	36,327	20.9%
Wholesale Trade	11,382	6.5%
Retail Trade	21,626	12.4%
Transportation and Warehousing	4,182	2.4%
Information	3,626	2.1%
Finance and Insurance	5,517	3.2%
Real Estate and Rental and Leasing	2,906	1.7%
Professional, Scientific, and Technical Services	5,773	3.3%
Management of Companies and Enterprises	1,563	0.9%
Admin. & Support, Waste Mgmt and Remediation	9,902	5.7%
Educational Services	17,304	10.0%
Health Care and Social Assistance	21,706	12.5%
Arts, Entertainment, and Recreation	947	0.5%
Accommodation and Food Services	9,945	5.7%
Other Services (excluding Public Administration)	9,823	5.6%
Public Administration	1,107	0.6%
Total	254,112	100%

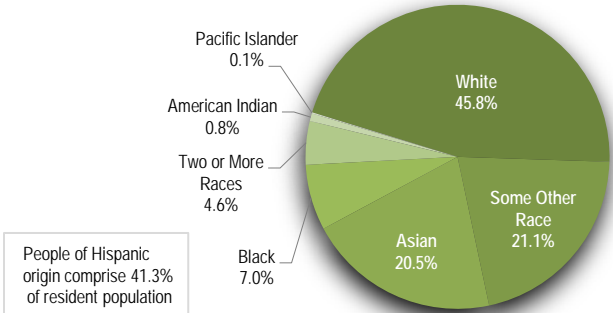
Central Los Angeles Planning Area



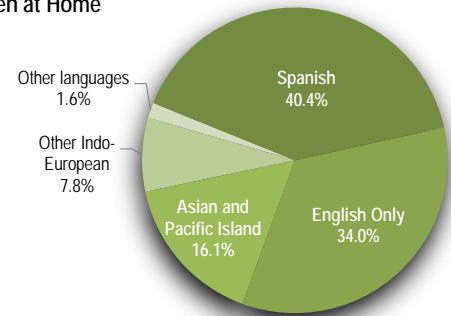
Educational Attainment of Resident Population Age 25+ Years



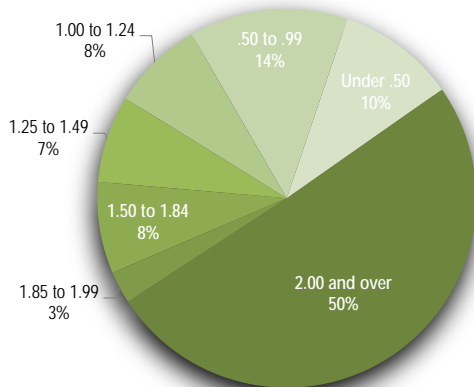
Race and Ethnicity of Resident Population



Language Spoken at Home Age 5+ Years



Ratio of Income to Poverty Level of Resident Population

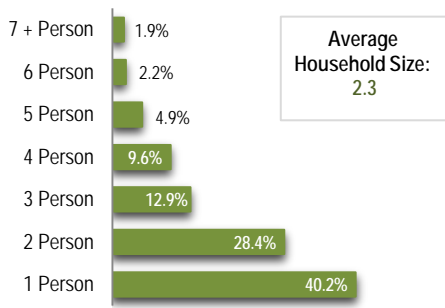


20.5% of the population have a household income under the poverty threshold.

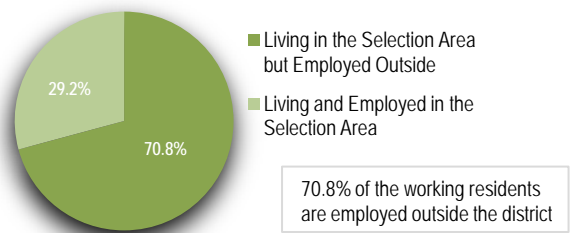
Means of Transportation to Work (Workers 16 and older)

Means of Transportation	Number	Share
Drove alone	185,458	57.2%
Carpooled	28,317	8.7%
Public transportation	68,231	21.0%
<i>Bus or trolley bus</i>	64,145	19.8%
<i>Streetcar or trolley car</i>	306	0.1%
<i>Subway or elevated</i>	3,433	1.1%
<i>Railroad</i>	322	0.1%
<i>Ferryboat</i>	24	0.0%
Taxicab	409	0.1%
Motorcycle	805	0.2%
Bicycle	2,515	0.8%
Walked	15,339	4.7%
Other means	3,642	1.1%
Worked at home	19,435	6.0%

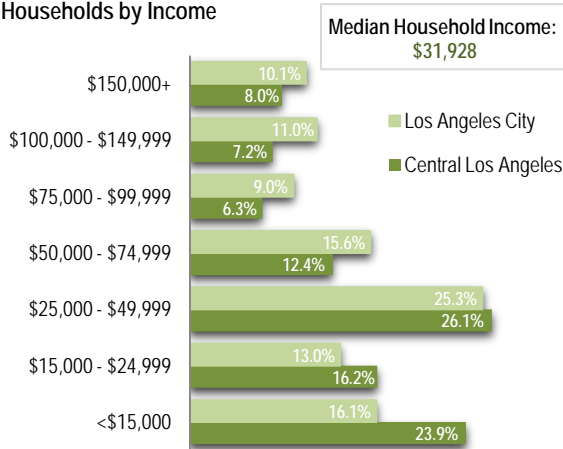
Households by Size



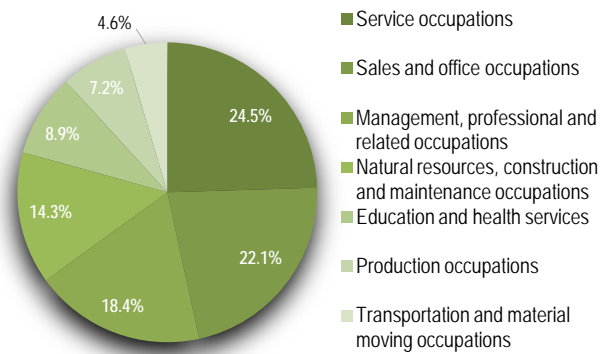
In-Area Labor Force Efficiency



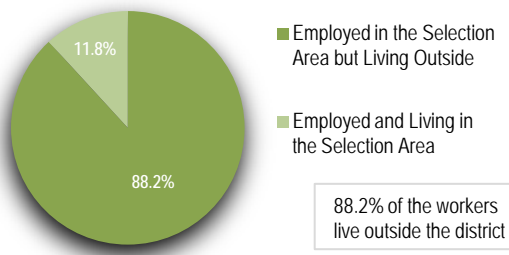
Households by Income



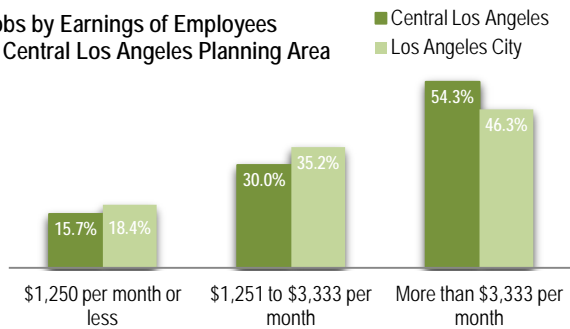
Resident Employment by Occupation
Population Age 16+ Years



In-Area Employment Efficiency



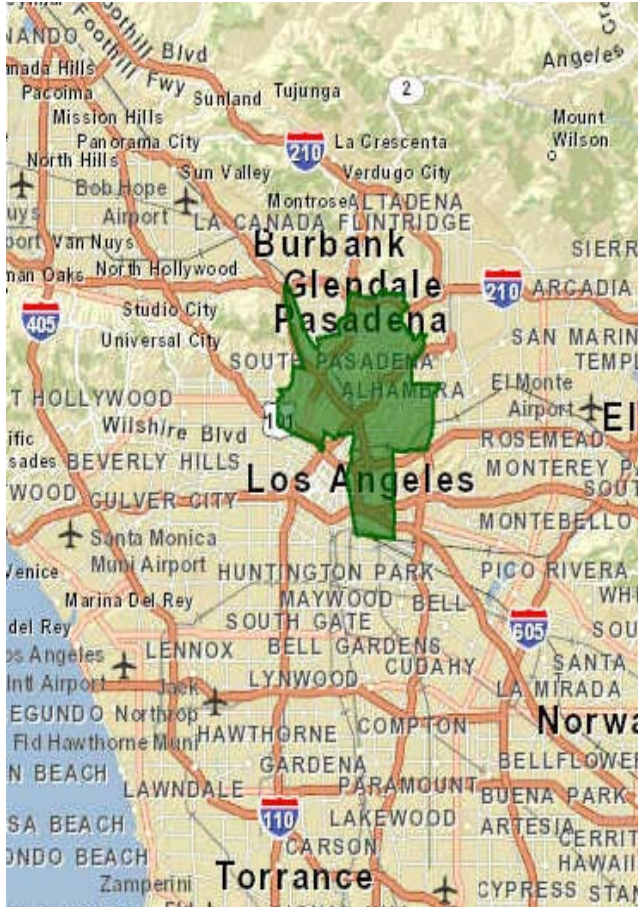
Jobs by Earnings of Employees
In Central Los Angeles Planning Area



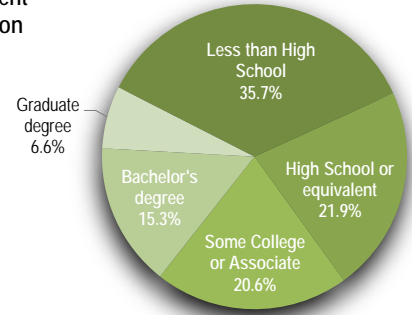
Central Los Angeles Planning Area Employment
by NAICS Industry Sector (2010)

Industry Sector	Number	Share
Agriculture, Forestry, Fishing and Hunting	291	0.2%
Mining, Quarrying, and Oil and Gas Extraction	100	0.1%
Utilities	335	0.2%
Construction	9,508	5.5%
Manufacturing	36,327	20.9%
Wholesale Trade	11,382	6.5%
Retail Trade	21,626	12.4%
Transportation and Warehousing	4,182	2.4%
Information	3,626	2.1%
Finance and Insurance	5,517	3.2%
Real Estate and Rental and Leasing	2,906	1.7%
Professional, Scientific, and Technical Services	5,773	3.3%
Management of Companies and Enterprises	1,563	0.9%
Admin. & Support, Waste Mgmt and Remediation	9,902	5.7%
Educational Services	17,304	10.0%
Health Care and Social Assistance	21,706	12.5%
Arts, Entertainment, and Recreation	947	0.5%
Accommodation and Food Services	9,945	5.7%
Other Services (excluding Public Administration)	9,823	5.6%
Public Administration	1,107	0.6%
Total	517,181	100%

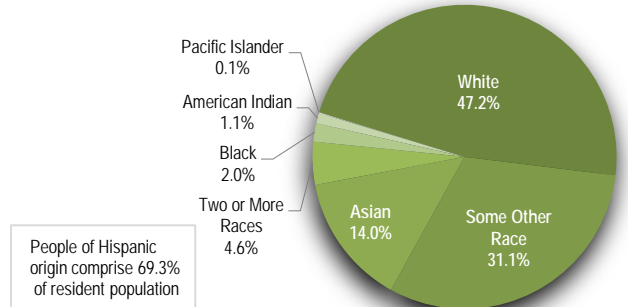
East Los Angeles Planning Area



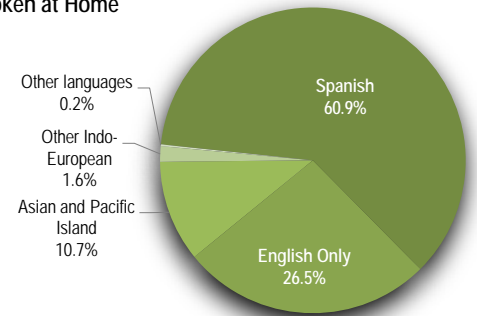
Educational Attainment of Resident Population Age 25+ Years



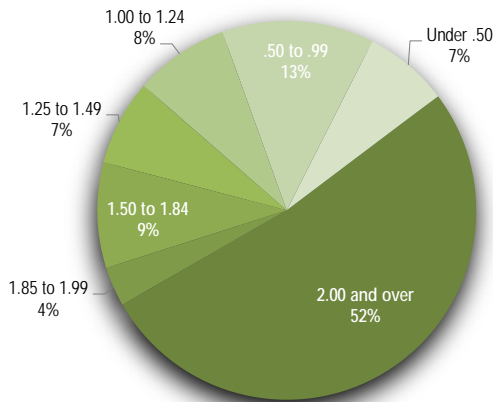
Race and Ethnicity of Resident Population



Language Spoken at Home Age 5+ Years



Ratio of Income to Poverty Level of Resident Population

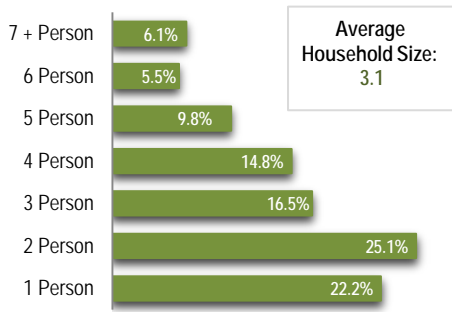


18.0% of the population have a household income under the poverty threshold.

Means of Transportation to Work (Workers 16 and older)

Means of Transportation	Number	Share
Drove alone	115,417	64.4%
Carpooled	22,490	12.5%
Public transportation	23,247	13.0%
<i>Bus or trolley bus</i>	22,239	12.4%
<i>Streetcar or trolley car</i>	78	0.0%
<i>Subway or elevated</i>	747	0.4%
<i>Railroad</i>	183	0.1%
<i>Ferryboat</i>	0	0.0%
Taxicab	142	0.1%
Motorcycle	441	0.2%
Bicycle	942	0.5%
Walked	7,561	4.2%
Other means	2,483	1.4%
Worked at home	6,621	3.7%

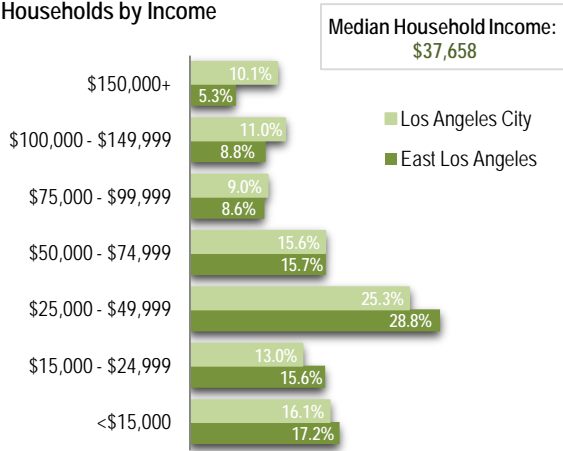
Households by Size



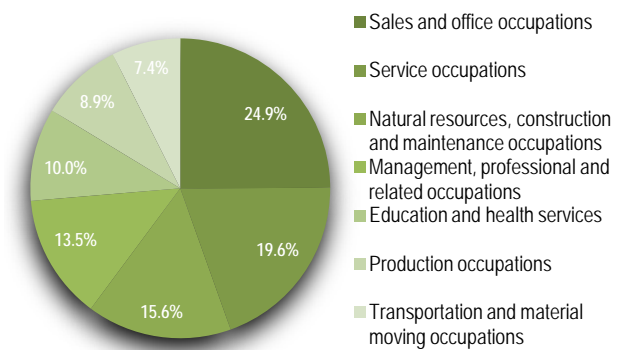
In-Area Labor Force Efficiency



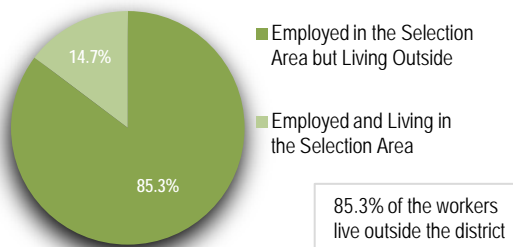
Households by Income



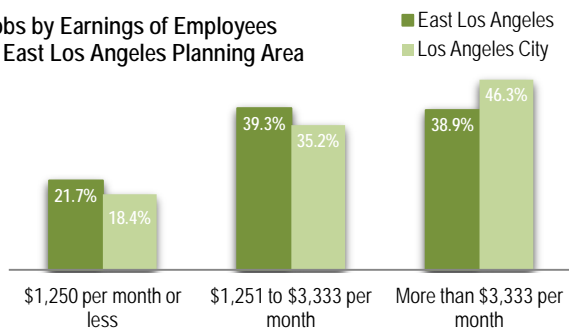
Resident Employment by Occupation
Population Age 16+ Years



In-Area Employment Efficiency



Jobs by Earnings of Employees
In East Los Angeles Planning Area



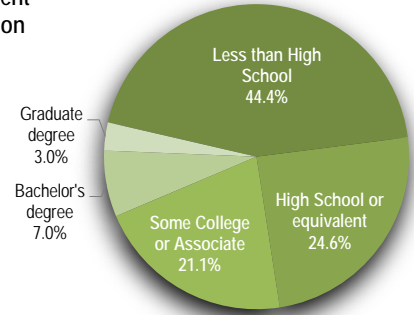
East Los Angeles Planning Area Employment
by NAICS Industry Sector (2010)

NAICS Industry Sector	Number	Share
Agriculture, Forestry, Fishing and Hunting	291	0.2%
Mining, Quarrying, and Oil and Gas Extraction	100	0.1%
Utilities	335	0.2%
Construction	9,508	5.5%
Manufacturing	36,327	20.9%
Wholesale Trade	11,382	6.5%
Retail Trade	21,626	12.4%
Transportation and Warehousing	4,182	2.4%
Information	3,626	2.1%
Finance and Insurance	5,517	3.2%
Real Estate and Rental and Leasing	2,906	1.7%
Professional, Scientific, and Technical Services	5,773	3.3%
Management of Companies and Enterprises	1,563	0.9%
Admin. & Support, Waste Mgmt and Remediation	9,902	5.7%
Educational Services	17,304	10.0%
Health Care and Social Assistance	21,706	12.5%
Arts, Entertainment, and Recreation	947	0.5%
Accommodation and Food Services	9,945	5.7%
Other Services (excluding Public Administration)	9,823	5.6%
Public Administration	1,107	0.6%
Total	78,196	100%

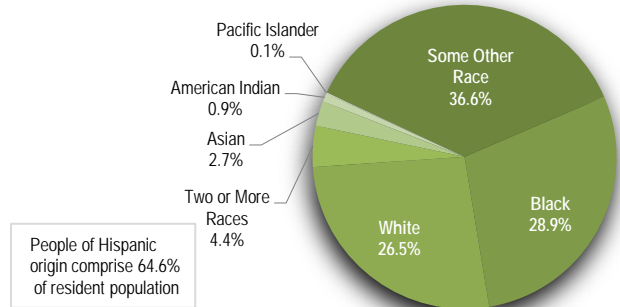
South Los Angeles Planning Area



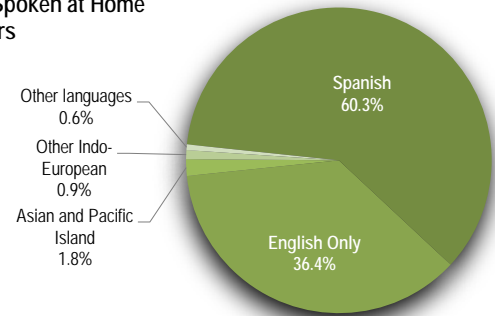
Educational Attainment of Resident Population Age 25+ Years



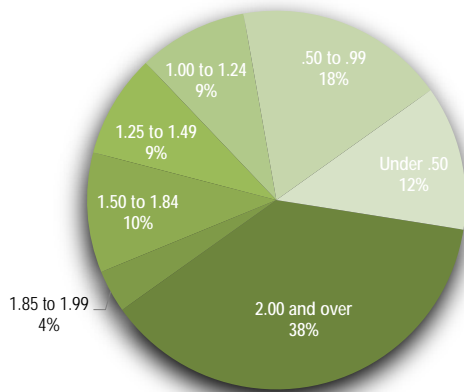
Race and Ethnicity of Resident Population



Language Spoken at Home Age 5+ Years



Ratio of Income to Poverty Level of Resident Population

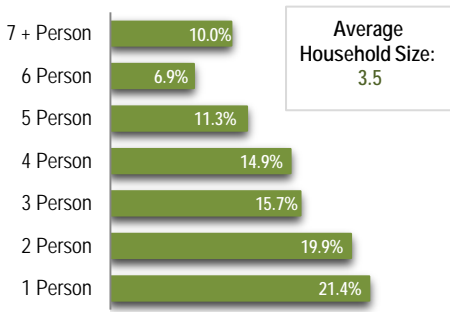


29.1% of the population have a household income under the poverty threshold.

Means of Transportation to Work (Workers 16 and older)

Means of Transportation	Number	Share
Drove alone	170,667	61.3%
Carpooled	35,717	12.8%
Public transportation	48,020	17.2%
<i>Bus or trolley bus</i>	47,110	16.9%
<i>Streetcar or trolley car</i>	217	0.1%
<i>Subway or elevated</i>	498	0.2%
<i>Railroad</i>	152	0.1%
<i>Ferryboat</i>	43	0.0%
Taxicab	174	0.1%
Motorcycle	403	0.1%
Bicycle	2,666	1.0%
Walked	9,757	3.5%
Other means	2,874	1.0%
Worked at home	8,341	3.0%

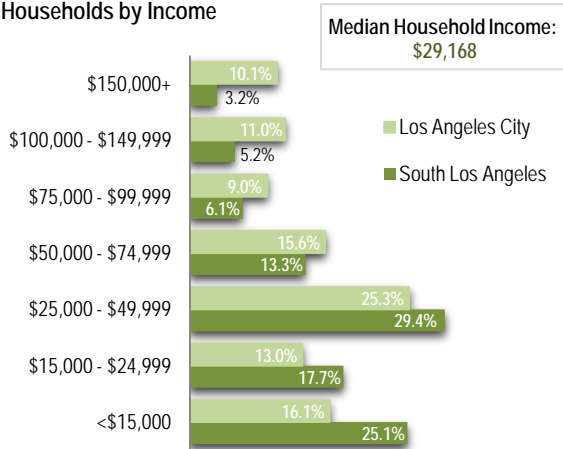
Households by Size



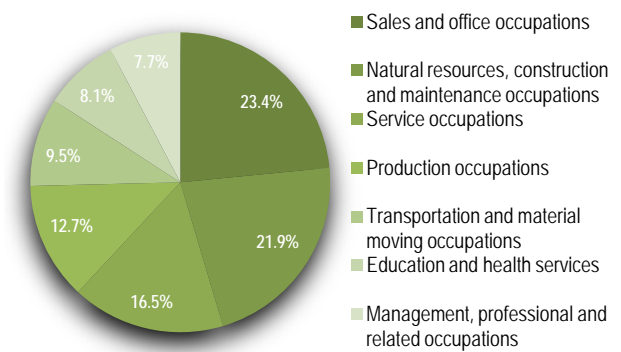
In-Area Labor Force Efficiency



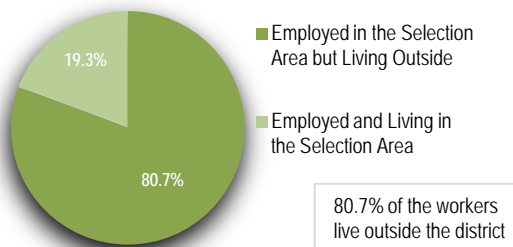
Households by Income



Resident Employment by Occupation
Population Age 16+ Years



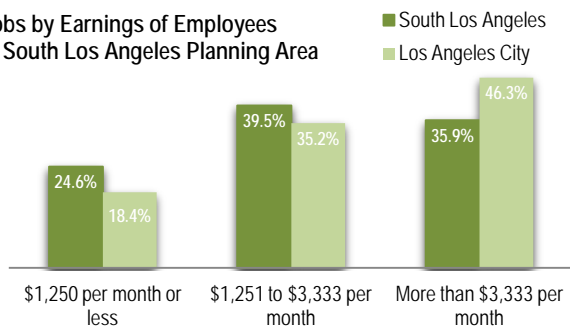
In-Area Employment Efficiency



South Los Angeles Planning Area Employment by NAICS Industry Sector (2010)

NAICS Industry Sector	Number	Share
Agriculture, Forestry, Fishing and Hunting	291	0.2%
Mining, Quarrying, and Oil and Gas Extraction	100	0.1%
Utilities	335	0.2%
Construction	9,508	5.5%
Manufacturing	36,327	20.9%
Wholesale Trade	11,382	6.5%
Retail Trade	21,626	12.4%
Transportation and Warehousing	4,182	2.4%
Information	3,626	2.1%
Finance and Insurance	5,517	3.2%
Real Estate and Rental and Leasing	2,906	1.7%
Professional, Scientific, and Technical Services	5,773	3.3%
Management of Companies and Enterprises	1,563	0.9%
Admin. & Support, Waste Mgmt and Remediation	9,902	5.7%
Educational Services	17,304	10.0%
Health Care and Social Assistance	21,706	12.5%
Arts, Entertainment, and Recreation	947	0.5%
Accommodation and Food Services	9,945	5.7%
Other Services (excluding Public Administration)	9,823	5.6%
Public Administration	1,107	0.6%
Total	120,151	100%

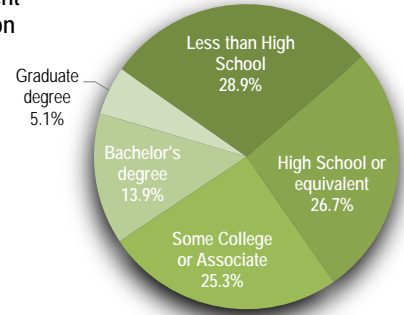
Jobs by Earnings of Employees
In South Los Angeles Planning Area



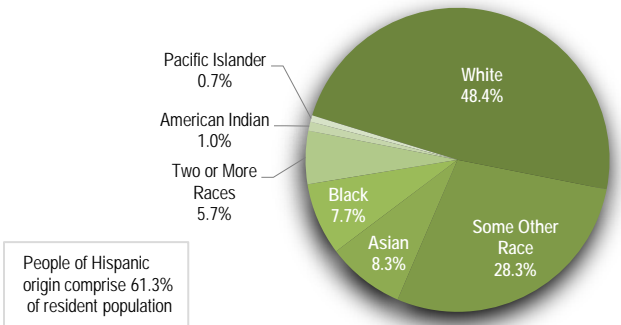
Harbor Planning Area



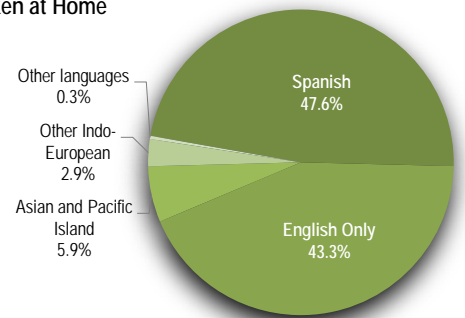
Educational Attainment of Resident Population Age 25+ Years



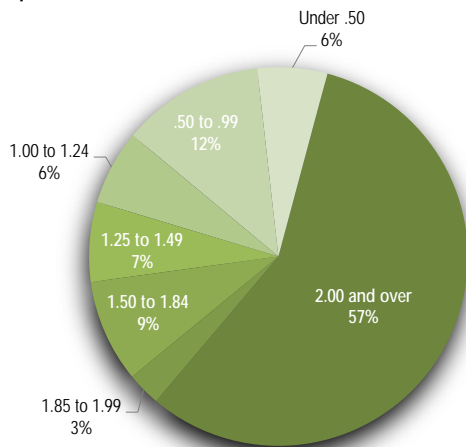
Race and Ethnicity of Resident Population



Language Spoken at Home Age 5+ Years



Ratio of Income to Poverty Level of Resident Population

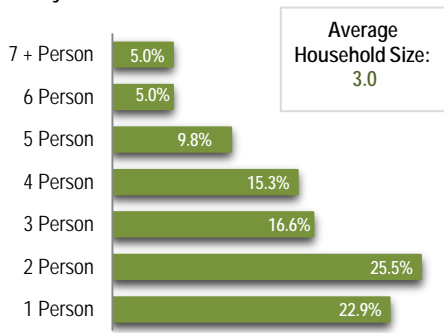


15.6% of the population have a household income under the poverty threshold.

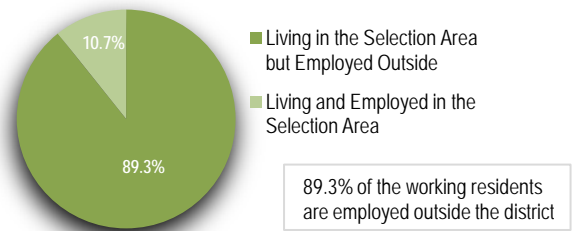
Means of Transportation to Work (Workers 16 and older)

Means of Transportation	Number	Share
Drove alone	63,361	73.2%
Carpooled	11,423	13.2%
Public transportation	5,030	5.8%
<i>Bus or trolley bus</i>	5,000	5.8%
<i>Streetcar or trolley car</i>	0	0.0%
<i>Subway or elevated</i>	30	0.0%
<i>Railroad</i>	0	0.0%
<i>Ferryboat</i>	0	0.0%
Taxicab	22	0.0%
Motorcycle	275	0.3%
Bicycle	637	0.7%
Walked	2,491	2.9%
Other means	1,015	1.2%
Worked at home	2,331	2.7%

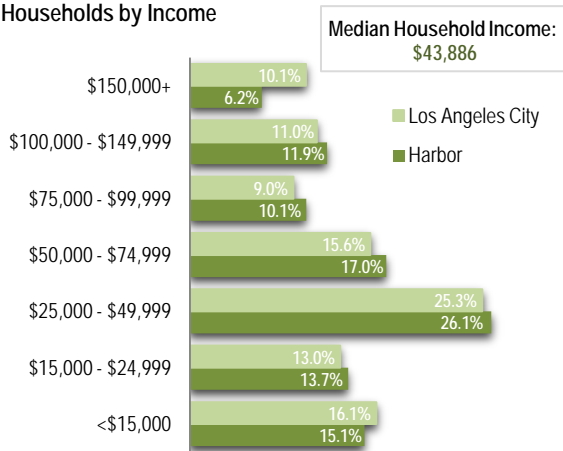
Households by Size



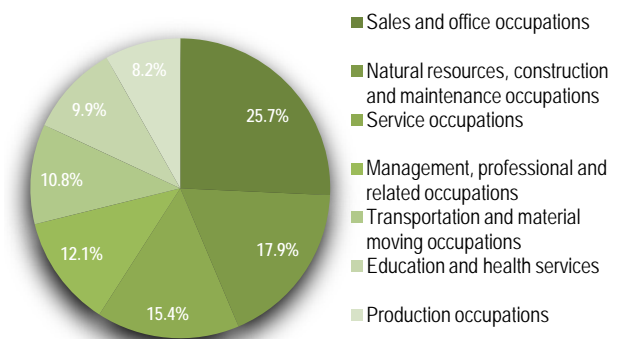
In-Area Labor Force Efficiency



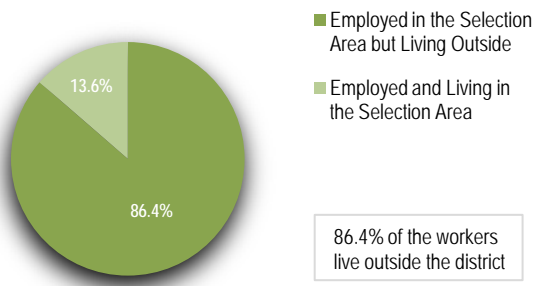
Households by Income



**Resident Employment by Occupation
Population Age 16+ Years**



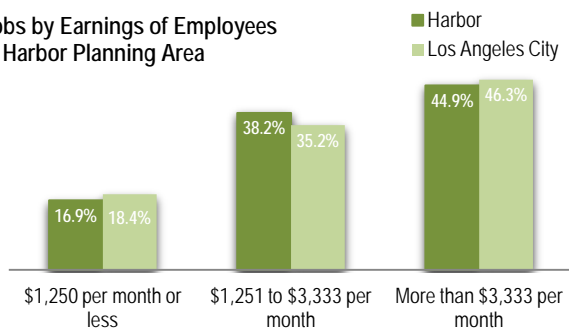
In-Area Employment Efficiency



Harbor Planning Area Employment by NAICS Industry Sector (2010)

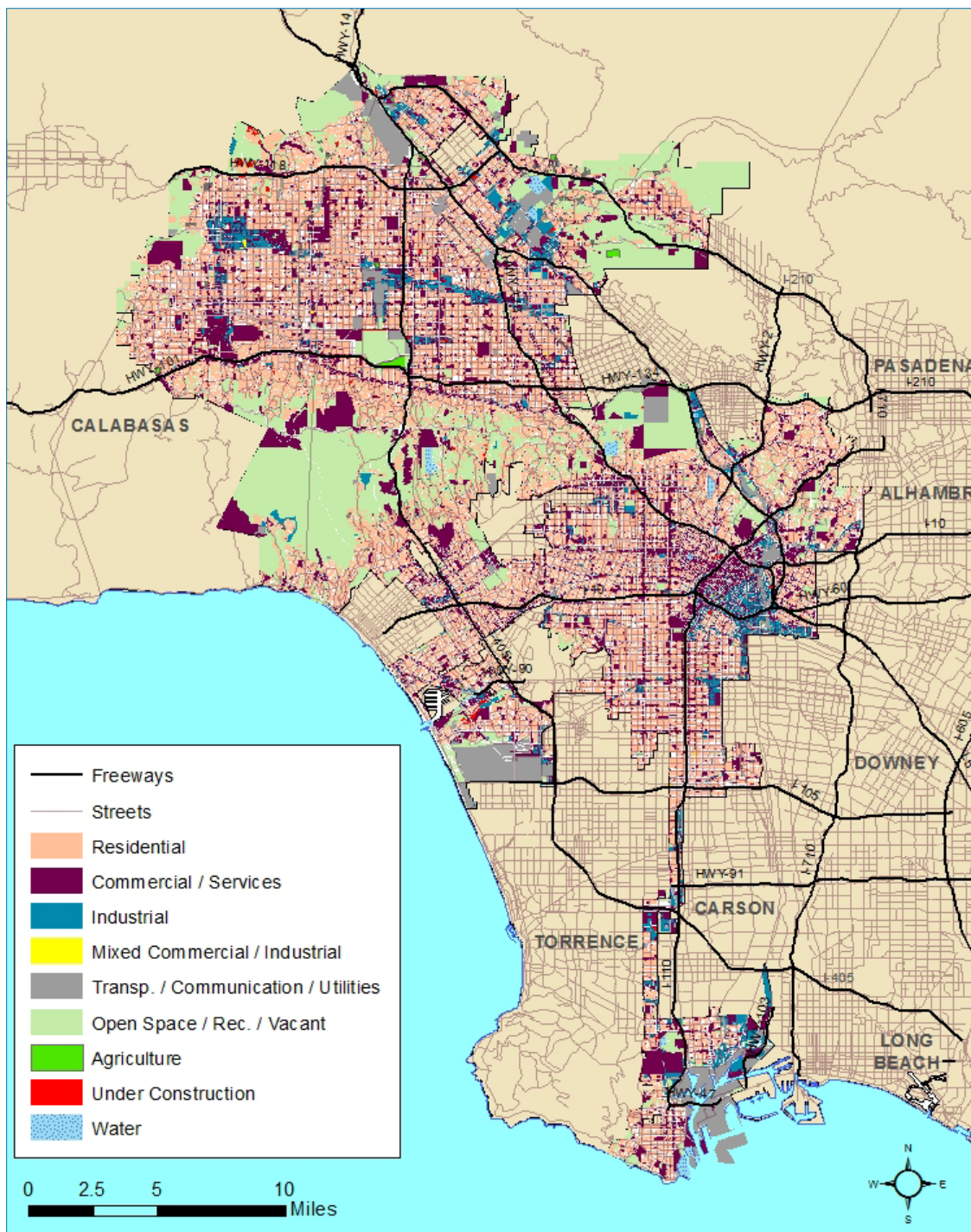
Industry Sector	Number	Share
Agriculture, Forestry, Fishing and Hunting	291	0.2%
Mining, Quarrying, and Oil and Gas Extraction	100	0.1%
Utilities	335	0.2%
Construction	9,508	5.5%
Manufacturing	36,327	20.9%
Wholesale Trade	11,382	6.5%
Retail Trade	21,626	12.4%
Transportation and Warehousing	4,182	2.4%
Information	3,626	2.1%
Finance and Insurance	5,517	3.2%
Real Estate and Rental and Leasing	2,906	1.7%
Professional, Scientific, and Technical Services	5,773	3.3%
Management of Companies and Enterprises	1,563	0.9%
Admin. & Support, Waste Mgmt and Remediation	9,902	5.7%
Educational Services	17,304	10.0%
Health Care and Social Assistance	21,706	12.5%
Arts, Entertainment, and Recreation	947	0.5%
Accommodation and Food Services	9,945	5.7%
Other Services (excluding Public Administration)	9,823	5.6%
Public Administration	1,107	0.6%
Total	51,265	100%

Jobs by Earnings of Employees In Harbor Planning Area



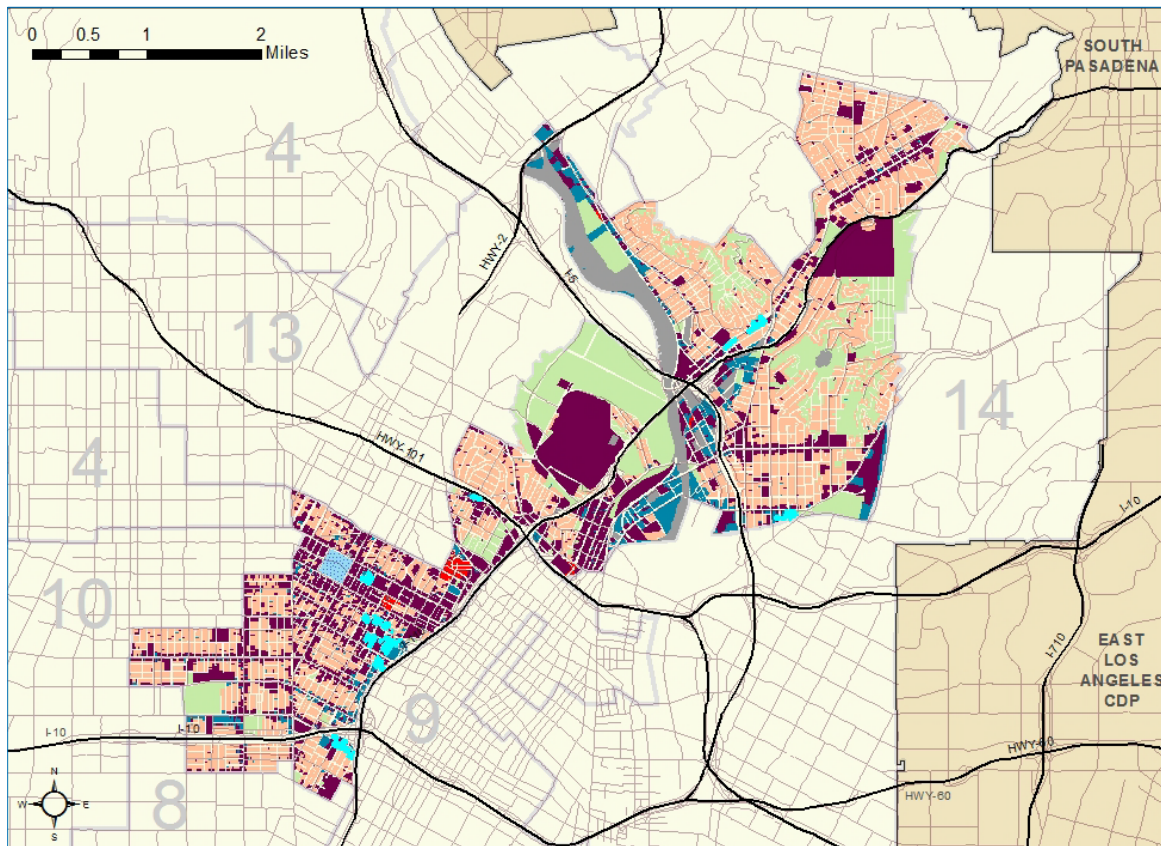
A4 Land Use Maps

Exhibit A-8
Land Use in the City of Los Angeles



Sources: SCAG; ESRI; LAEDC

Exhibit A-9
Land Use in Council District 1



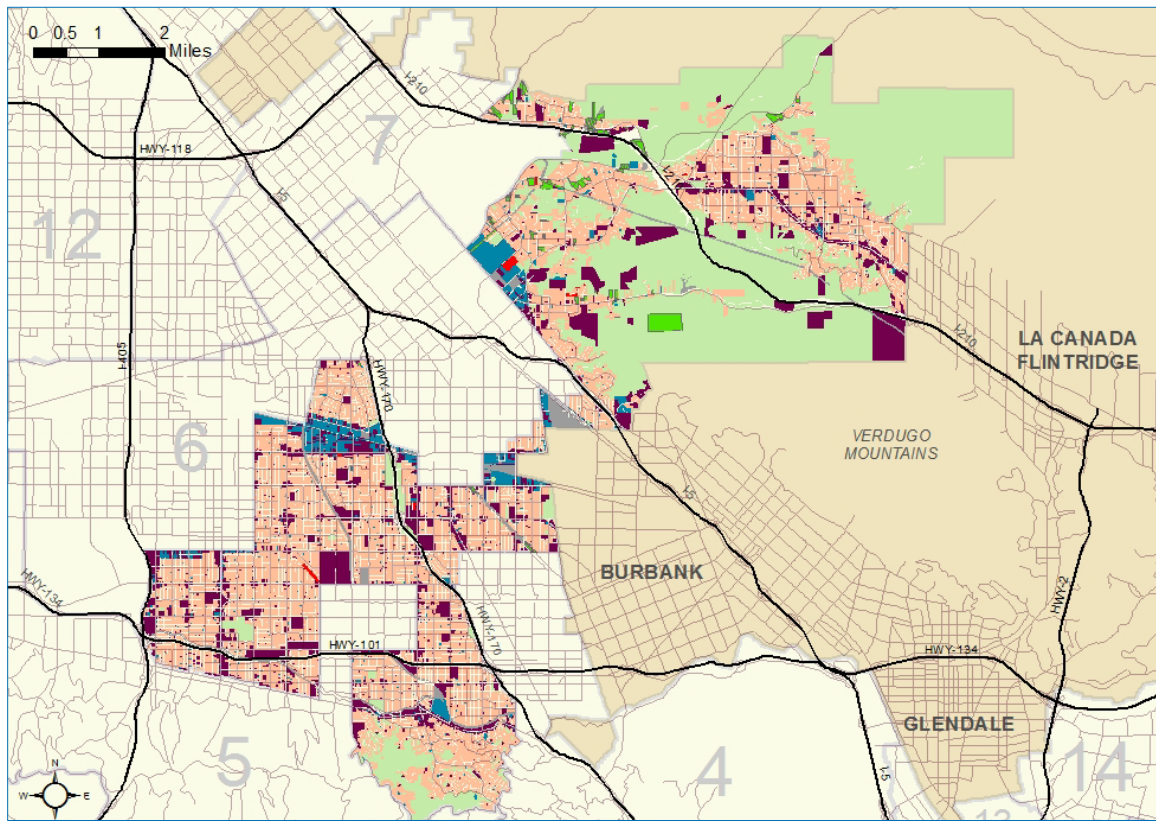
Sources: SCAG; ESRI; LAEDC

Exhibit A-10
Land Use by Type in Council District 1

	Acreage (000s)	% of Total
Residential	2.6	39.7%
Commercial	1.9	27.7%
Industrial	0.4	5.4%
Transportation, Communication, Utilities	0.4	6.4%
Open Space and Recreation	0.6	8.8%
Agriculture	0.0	0.0%
Other Land Uses	0.1	1.3%
Vacant	0.0	10.2%
Water	0.0	0.5%
Total Zoned Land Area	6.7	99.9%
Total Land Area	6.7	100.0%

Sources: SCAG; ESRI; LAEDC

Exhibit A-11
Land Use in Council District 2



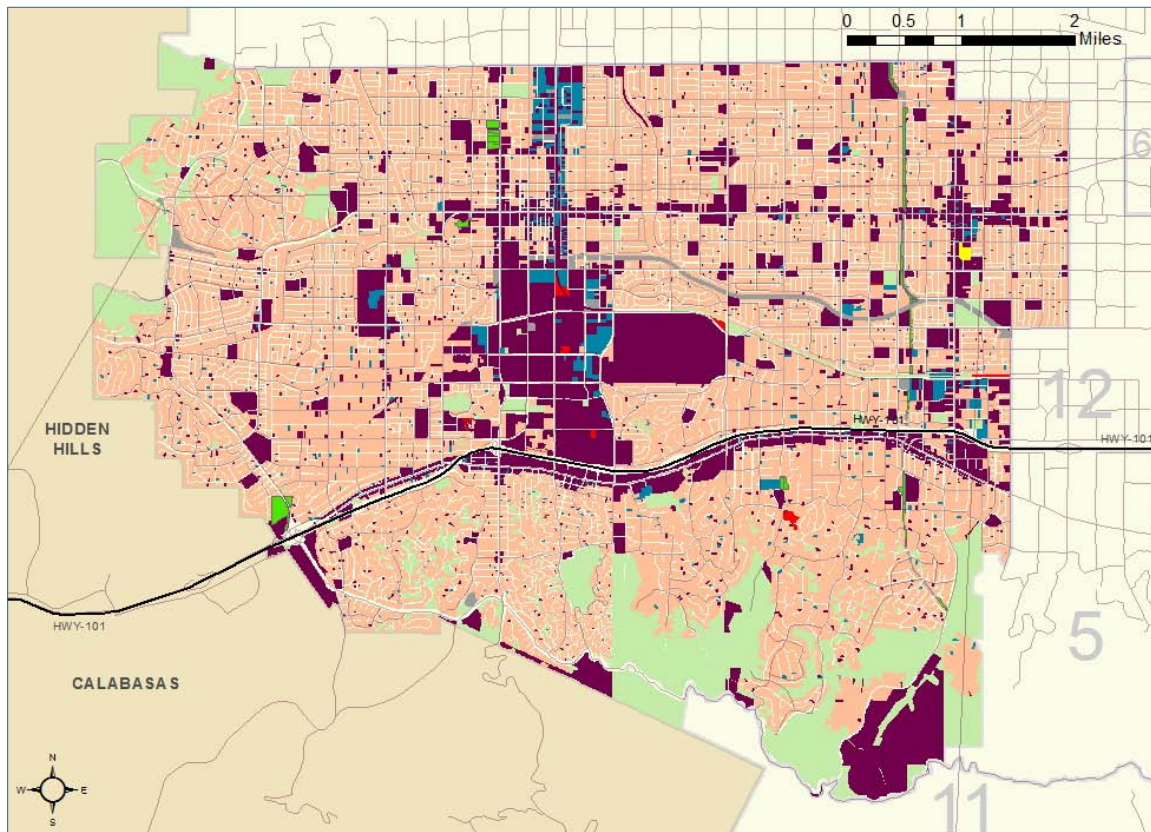
Sources: SCAG; ESRI; LAEDC

Exhibit A-12
Land Use by Type in Council District 2

	Acreage (000s)	% of Total
Residential	10.7	39.6%
Commercial	3.1	11.3%
Industrial	0.9	3.5%
Transportation, Communication, Utilities	0.6	2.4%
Open Space and Recreation	0.5	2.0%
Agriculture	0.3	1.2%
Other Land Uses	0.0	0.2%
Vacant	10.8	39.7%
Water	0.0	0.0%
Total Zoned Land Area	27.0	99.8%
Total Land Area	27.1	100.0%

Sources: SCAG; ESRI; LAEDC

Exhibit A-13
Land Use in Council District 3



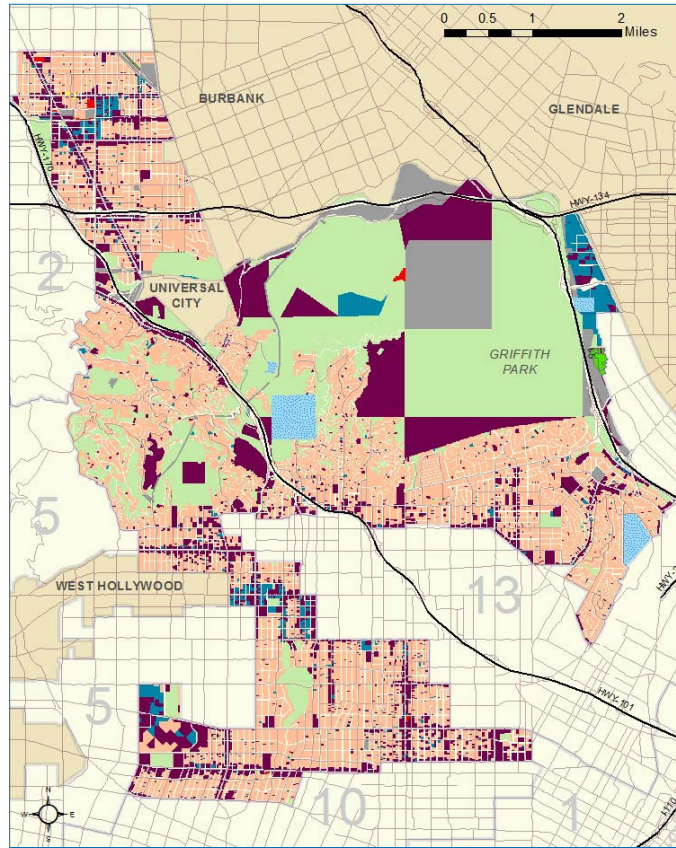
Sources: SCAG; ESRI; LAEDC

Exhibit A-14
Land Use by Type in Council District 3

	Acreage (000s)	% of Total
Residential	13.4	62.9%
Commercial	4.3	20.0%
Industrial	0.5	2.2%
Transportation, Communication, Utilities	0.2	1.0%
Open Space and Recreation	0.7	3.3%
Agriculture	0.1	0.4%
Other Land Uses	0.0	0.2%
Vacant	2.1	9.8%
Water	0.0	0.0%
Total Zoned Land Area	21.2	99.8%
Total Land Area	21.3	100.0%

Sources: SCAG; ESRI; LAEDC

Exhibit A-15
Land Use in Council District 4



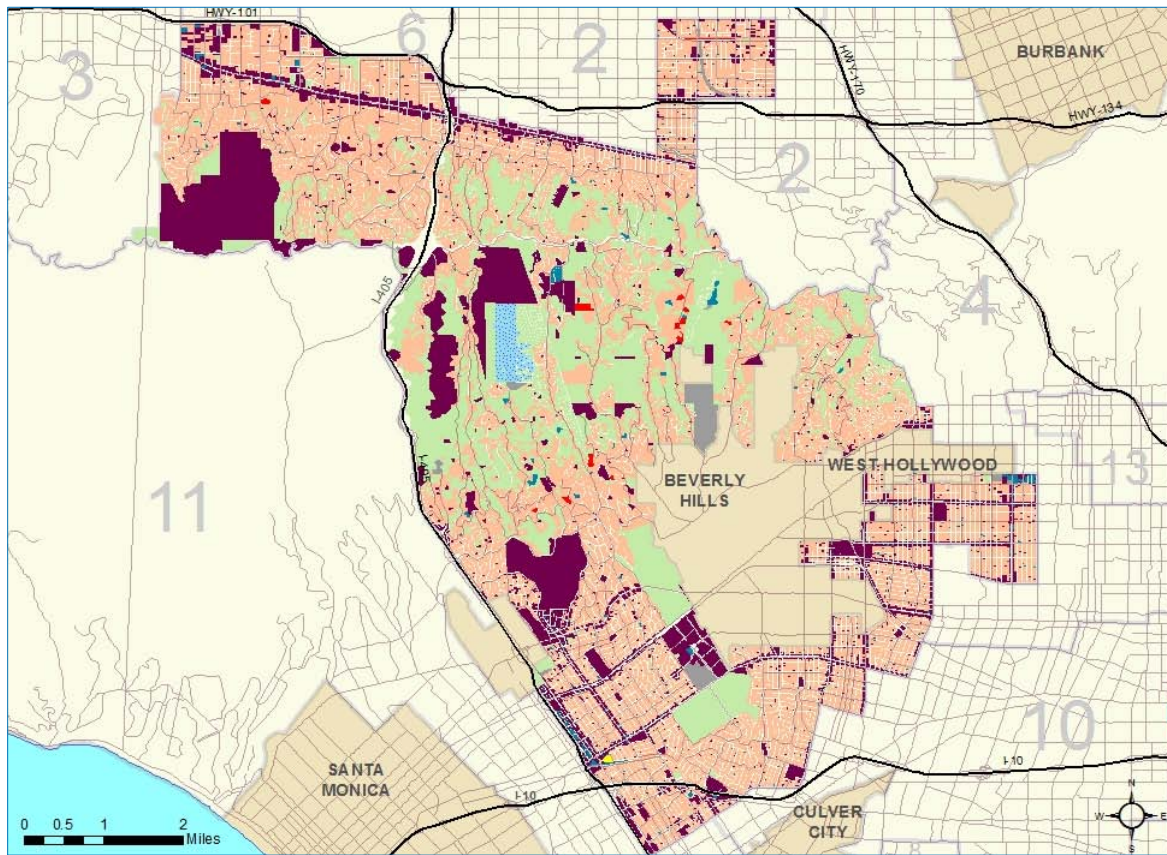
Sources: SCAG; ESRI; LAEDC

Exhibit A-16
Land Use by Type in Council District 4

	Acreage (000s)	% of Total
Residential	6.5	39.7%
Commercial	2.8	17.4%
Industrial	0.5	3.3%
Transportation, Communication, Utilities	1.1	7.0%
Open Space and Recreation	1.6	9.9%
Agriculture	0.0	0.2%
Other Land Uses	0.0	0.2%
Vacant	3.4	20.5%
Water	0.3	1.6%
Total Zoned Land Area	16.3	99.7%
Total Land Area	16.4	100.0%

Sources: SCAG; ESRI; LAEDC

Exhibit A-17
Land Use in Council District 5



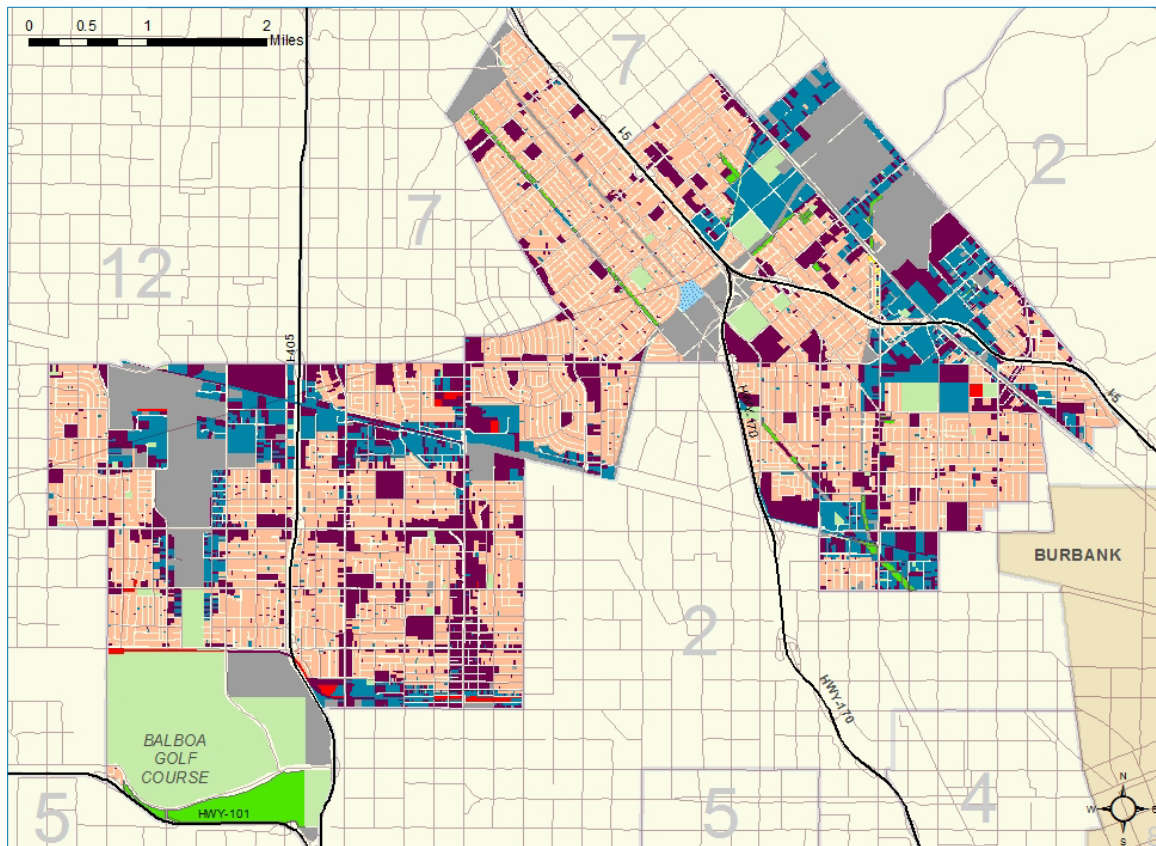
Sources: SCAG; ESRI; LAEDC

Exhibit A-18
Land Use by Type in Council District 5

	Acreage (000s)	% of Total
Residential	13.6	54.1%
Commercial	4.5	17.7%
Industrial	0.2	1.0%
Transportation, Communication, Utilities	0.3	1.2%
Open Space and Recreation	1.0	3.8%
Agriculture	0.1	0.0%
Other Land Uses	0.1	0.3%
Vacant	5.3	20.9%
Water	0.2	0.8%
Total Zoned Land Area	25.1	99.8%
Total Land Area	25.2	100.0%

Sources: SCAG; ESRI; LAEDC

Exhibit A-19
Land Use in Council District 6



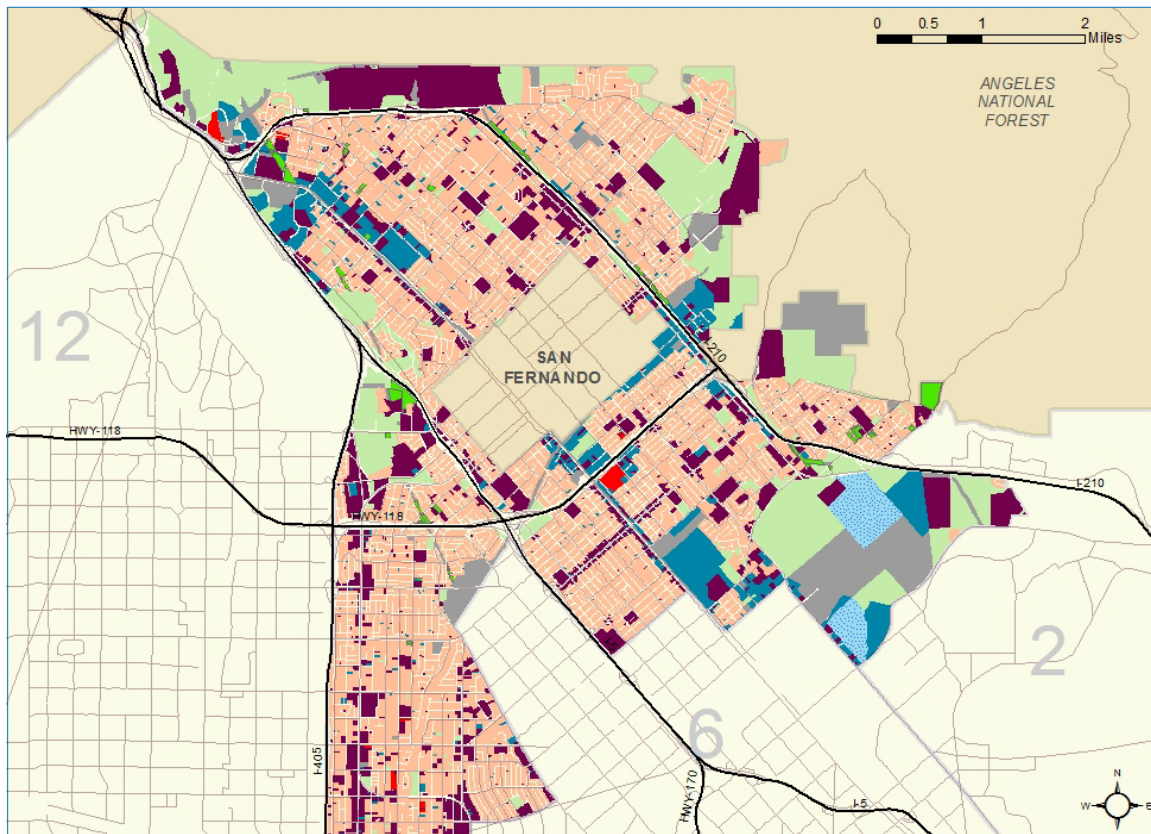
Sources: SCAG; ESRI; LAEDC

Exhibit A-20
Land Use by Type in Council District 6

	Acreage (000s)	% of Total
Residential	5.8	43.0%
Commercial	2.4	17.8%
Industrial	1.7	12.3%
Transportation, Communication, Utilities	1.9	13.8%
Open Space and Recreation	1.2	8.7%
Agriculture	0.3	2.2%
Other Land Uses	0.1	0.5%
Vacant	0.2	1.3%
Water	0.0	0.2%
Total Zoned Land Area	13.5	99.8%
Total Land Area	13.6	100.0%

Sources: SCAG; ESRI; LAEDC

Exhibit A-21
Land Use in Council District 7



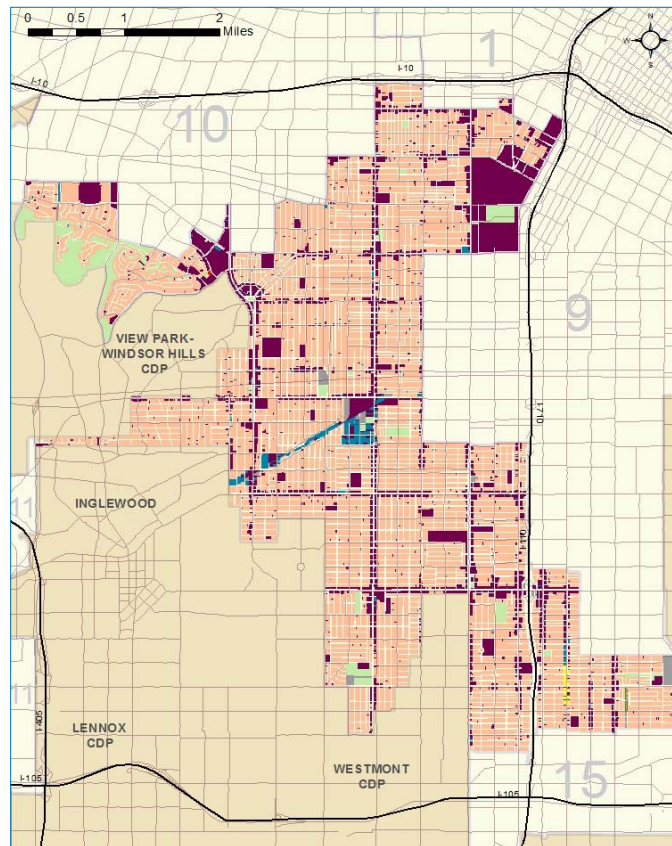
Sources: SCAG; ESRI; LAEDC

Exhibit A-22
Land Use by Type in Council District 7

	Acreage (000s)	% of Total
Residential	7.0	47.1%
Commercial	2.6	17.2%
Industrial	1.1	7.2%
Transportation, Communication, Utilities	1.3	8.5%
Open Space and Recreation	1.1	7.6%
Agriculture	0.1	0.9%
Other Land Uses	0.1	0.4%
Vacant	1.3	9.0%
Water	0.3	1.9%
Total Zoned Land Area	14.8	99.7%
Total Land Area	14.9	100.0%

Sources: SCAG; ESRI; LAEDC

Exhibit A-23
Land Use in Council District 8



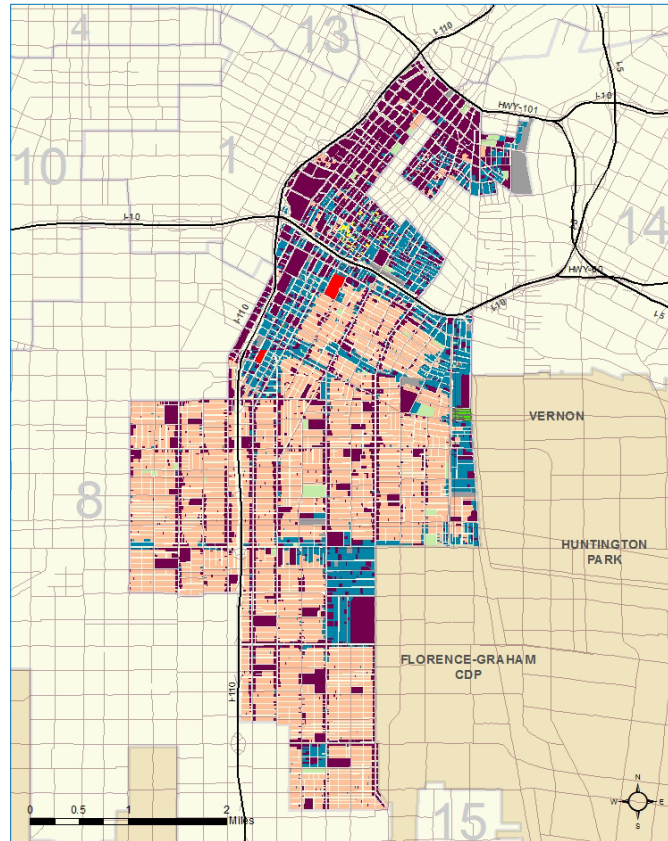
Sources: SCAG; ESRI; LAEDC

Exhibit A-24
Land Use by Type in Council District 8

	Acreage (000s)	% of Total
Residential	6.0	74.1%
Commercial	1.5	18.7%
Industrial	0.1	1.4%
Transportation, Communication, Utilities	0.1	0.9%
Open Space and Recreation	0.3	3.1%
Agriculture	0.0	0.0%
Other Land Uses	0.7	0.7%
Vacant	0.1	1.0%
Water	0.0	0.0%
Total Zoned Land Area	8.1	99.9%
Total Land Area	8.1	100.0%

Sources: SCAG; ESRI; LAEDC

Exhibit A-25
Land Use in Council District 9



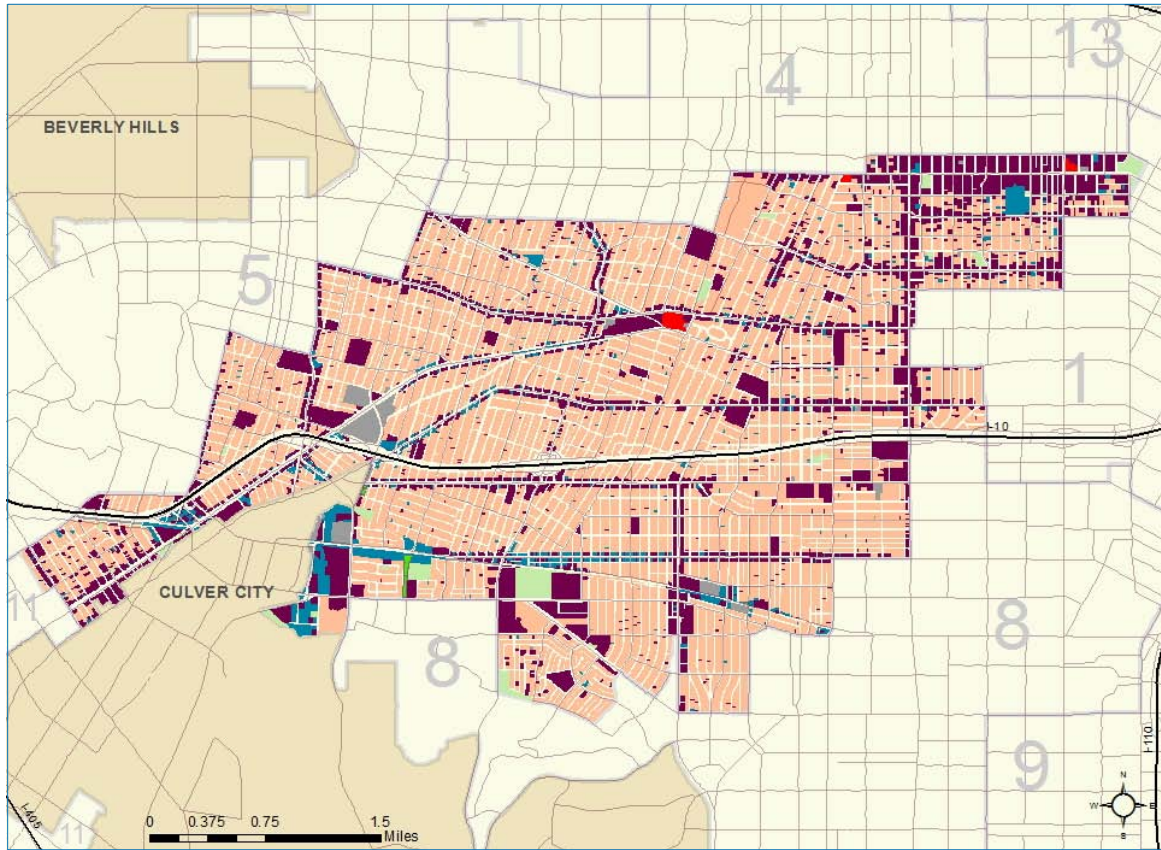
Sources: SCAG; ESRI; LAEDC

Exhibit A-26
Land Use by Type in Council District 9

	Acreage (000s)	% of Total
Residential	3.2	48.4%
Commercial	2.0	29.9%
Industrial	1.1	16.0%
Transportation, Communication, Utilities	0.2	2.3%
Open Space and Recreation	0.1	1.2%
Agriculture	0.0	0.2%
Other Land Uses	0.1	1.6%
Vacant	0.0	0.3%
Water	0.0	0.0%
Total Zoned Land Area	6.7	99.8%
Total Land Area	6.7	100.0%

Sources: SCAG; ESRI; LAEDC

Exhibit A-27
Land Use in Council District 10



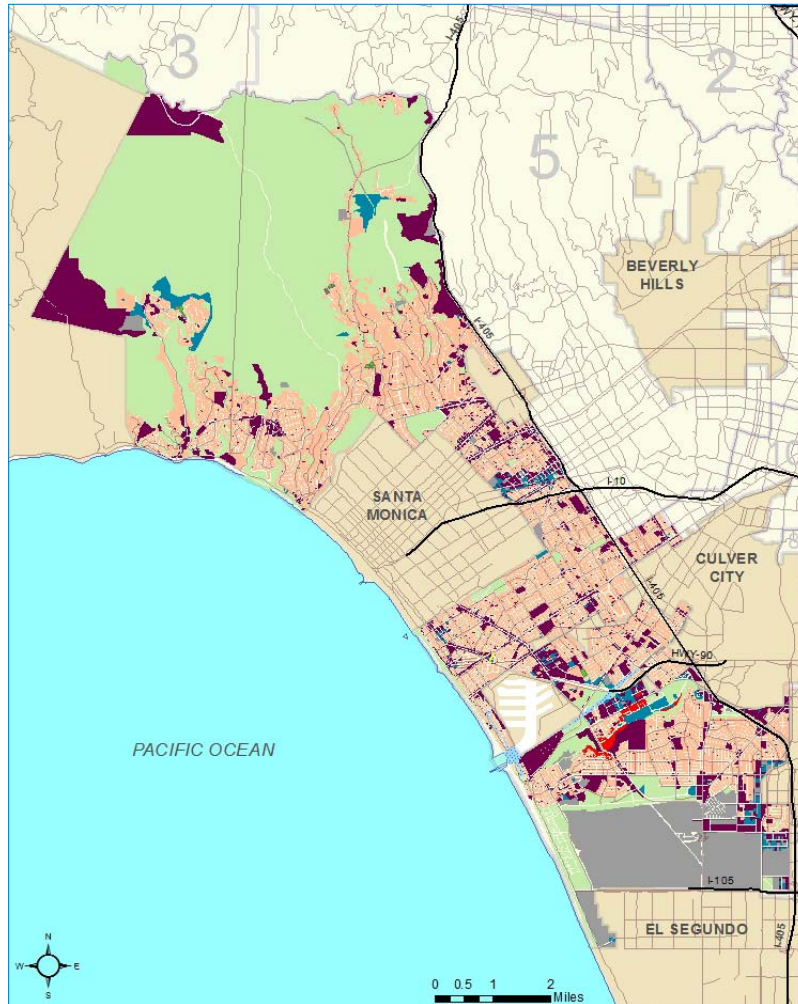
Sources: SCAG; ESRI; LAEDC

Exhibit A-28
Land Use by Type in Council District 10

	Acreage (000s)	% of Total
Residential	4.2	69.8%
Commercial	1.4	22.7%
Industrial	0.2	3.9%
Transportation, Communication, Utilities	0.1	1.6%
Open Space and Recreation	0.1	1.4%
Agriculture	0.0	0.1%
Other Land Uses	0.0	0.3%
Vacant	0.0	0.1%
Water	0.0	0.0%
Total Zoned Land Area	6.0	99.8%
Total Land Area	6.0	100.0%

Sources: SCAG; ESRI; LAEDC

Exhibit A-29
Land Use in Council District 11



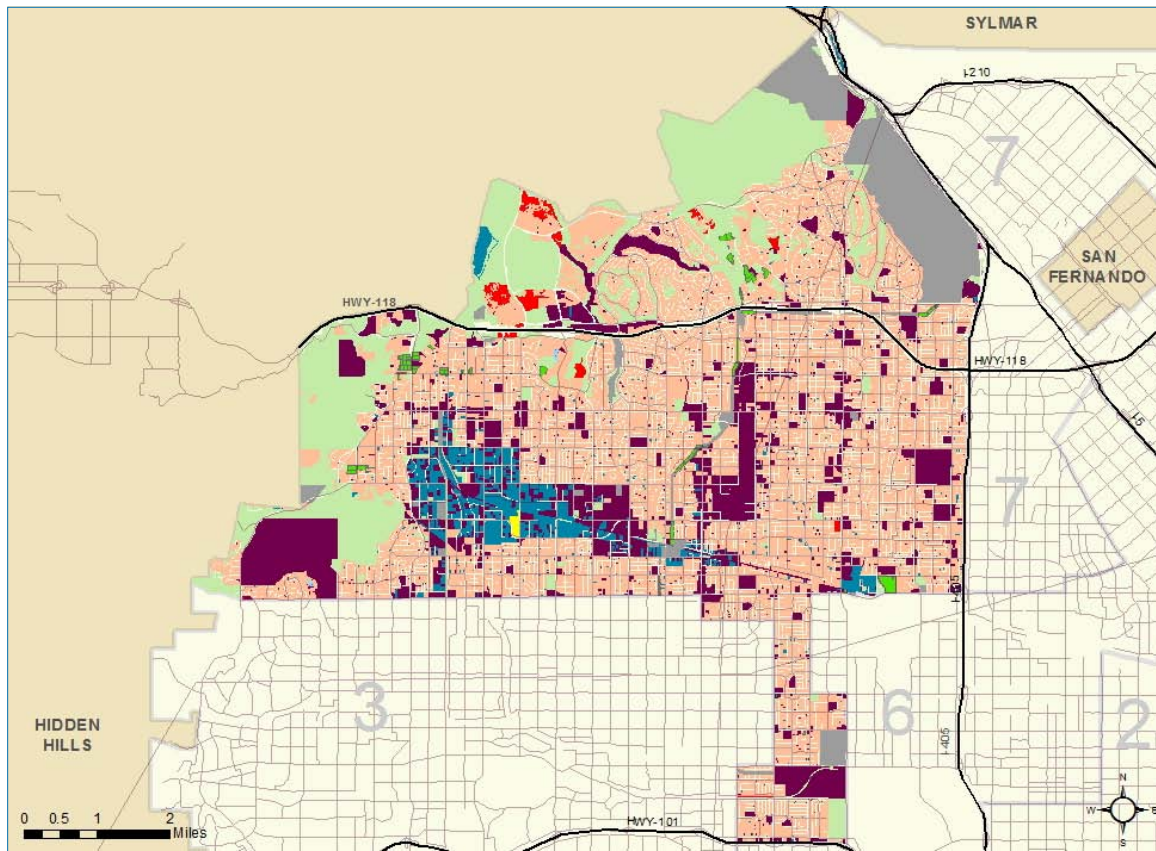
Sources: SCAG; ESRI; LAEDC

Exhibit A-30
Land Use by Type in Council District 11

	Acreage (000s)	% of Total
Residential	10.1	28.4%
Commercial	4.3	12.1%
Industrial	8.1	2.3%
Transportation, Communication, Utilities	3.4	9.6%
Open Space and Recreation	1.4	3.9%
Agriculture	1.2	3.1%
Other Land Uses	0.1	0.4%
Vacant	13.5	37.8%
Water	0.1	0.4%
Total Zoned Land Area	33.8	94.9%
Total Land Area	35.6	100.0%

Sources: SCAG; ESRI; LAEDC

Exhibit A-31
Land Use in Council District 12



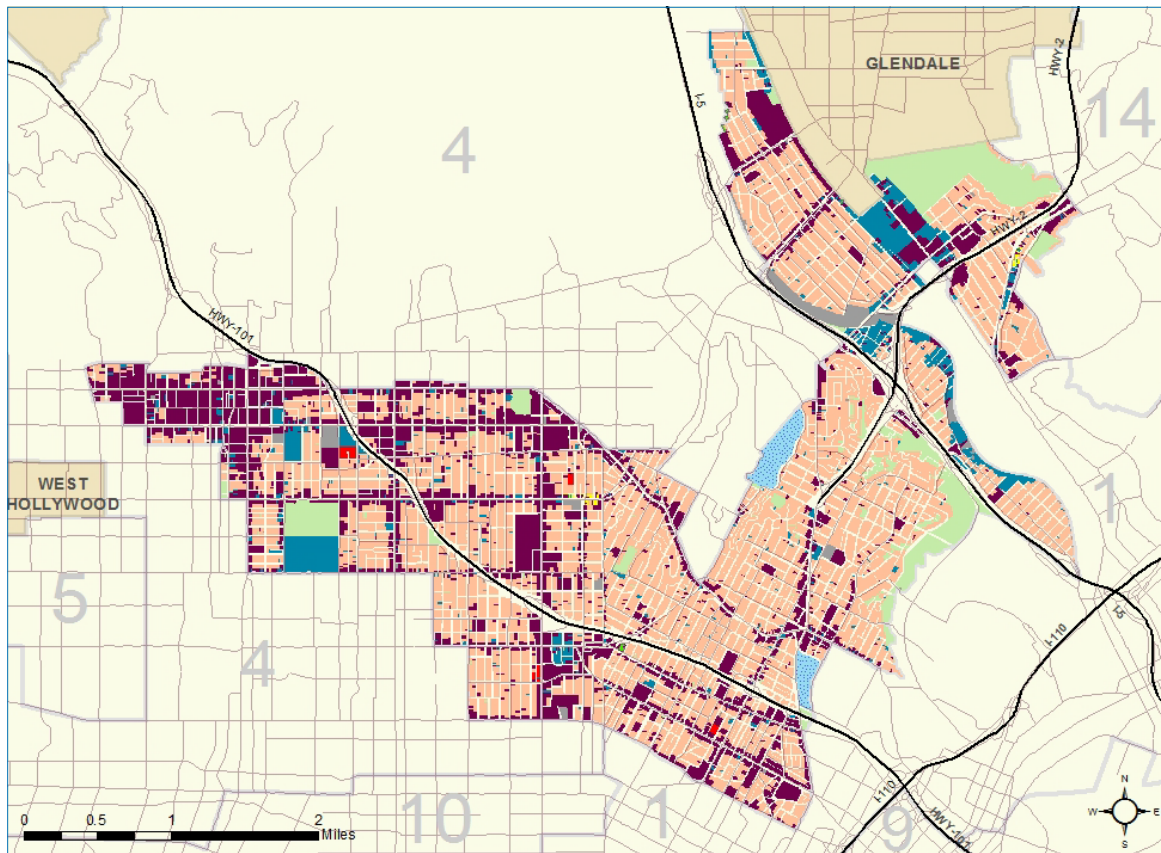
Sources: SCAG; ESRI; LAEDC

Exhibit A-32
Land Use by Type in Council District 12

	Acreage (000s)	% of Total
Residential	14.9	49.7%
Commercial	4.9	16.3%
Industrial	1.3	4.5%
Transportation, Communication, Utilities	2.4	8.1%
Open Space and Recreation	0.8	2.6%
Agriculture	0.2	0.7%
Other Land Uses	0.2	0.8%
Vacant	5.2	17.2%
Water	0.0	0.0%
Total Zoned Land Area	29.9	99.9%
Total Land Area	29.9	100.0%

Sources: SCAG; ESRI; LAEDC

Exhibit A-33
Land Use in Council District 13



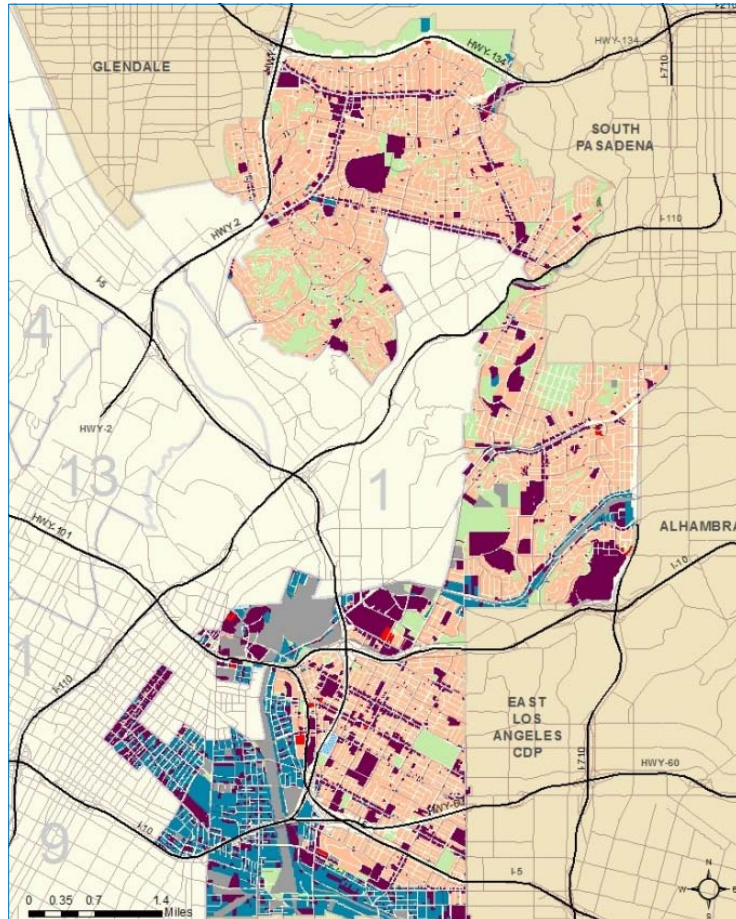
Sources: SCAG; ESRI; LAEDC

Exhibit A-34
Land Use by Type in Council District 13

	Acreage (000s)	% of Total
Residential	3.3	57.1%
Commercial	1.4	24.9%
Industrial	0.4	6.1%
Transportation, Communication, Utilities	0.1	1.8%
Open Space and Recreation	0.4	7.0%
Agriculture	0.0	0.0%
Other Land Uses	29.1	0.5%
Vacant	0.1	1.2%
Water	0.0	0.0%
Total Zoned Land Area	5.7	99.8%
Total Land Area	5.7	100.0%

Sources: SCAG; ESRI; LAEDC

Exhibit A-35
Land Use in Council District 14



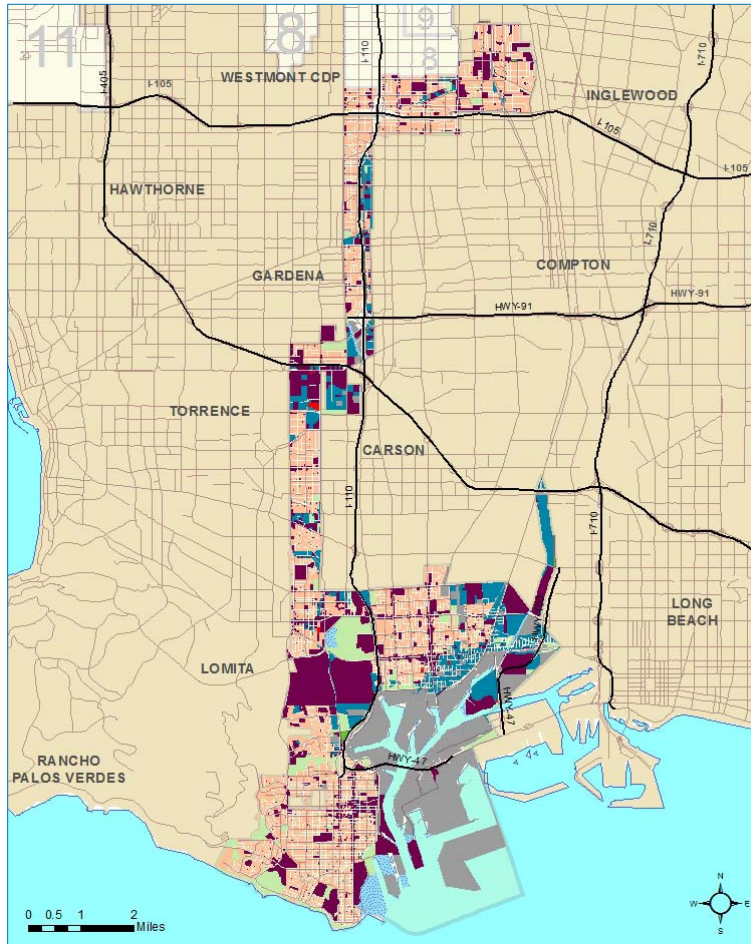
Sources: SCAG; ESRI; LAEDC

Exhibit A-36
Land Use by Type in Council District 14

	Acreage (000s)	% of Total
Residential	5.5	49.3%
Commercial	2.1	18.7%
Industrial	1.3	11.5%
Transportation, Communication, Utilities	0.8	7.4%
Open Space and Recreation	0.3	2.5%
Agriculture	0.0	0.0%
Other Land Uses	0.1	0.5%
Vacant	1.1	10.0%
Water	0.0	0.0%
Total Zoned Land Area	11.1	99.9%
Total Land Area	11.1	100.0%

Sources: SCAG; ESRI; LAEDC

Exhibit A-37
Land Use in Council District 15



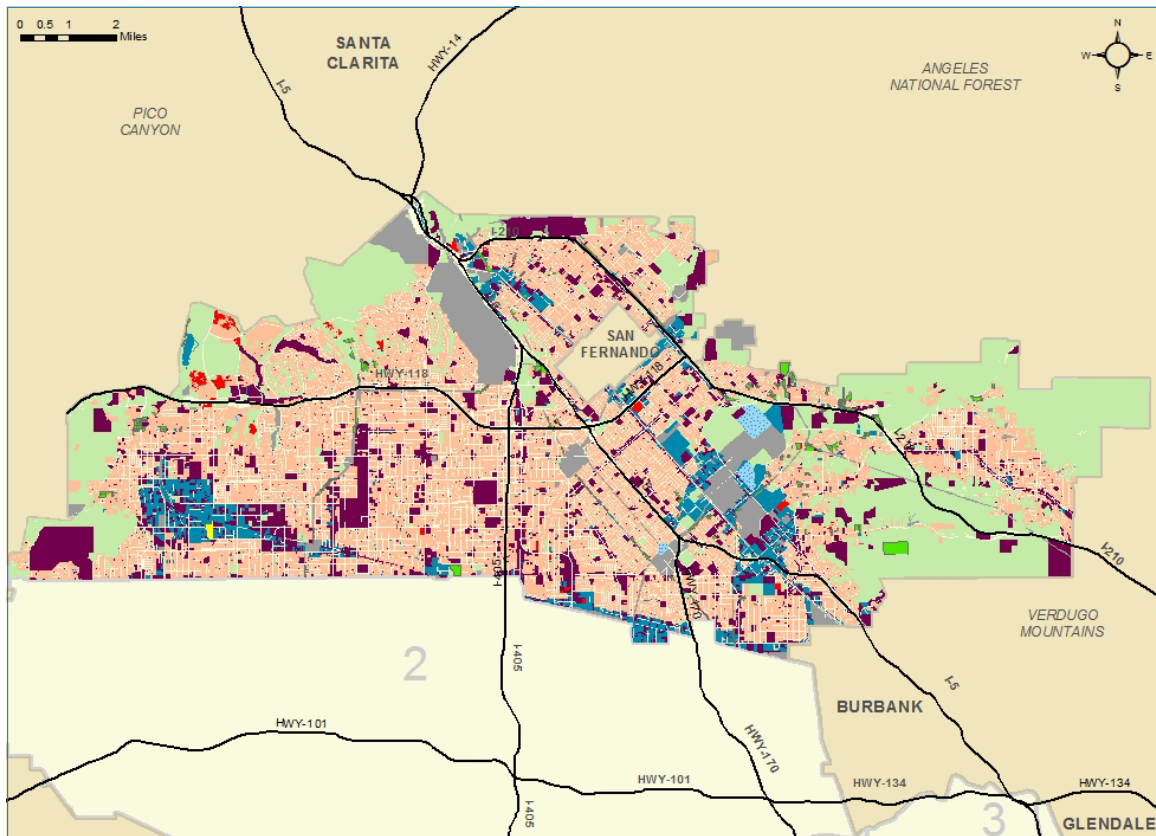
Sources: SCAG; ESRI; LAEDC

Exhibit A-38
Land Use by Type in Council District 15

	Acreage (000s)	% of Total
Residential	5.9	34.6%
Commercial	3.9	23.0%
Industrial	1.8	10.2%
Transportation, Communication, Utilities	3.8	21.9%
Open Space and Recreation	0.7	4.3%
Agriculture	0.1	0.4%
Other Land Uses	0.1	0.3%
Vacant	0.5	2.9%
Water	0.4	2.3%
Total Zoned Land Area	17.2	99.8%
Total Land Area	17.2	100.0%

Sources: SCAG; ESRI; LAEDC

Exhibit A-39
Land Use in the North Valley Planning Area



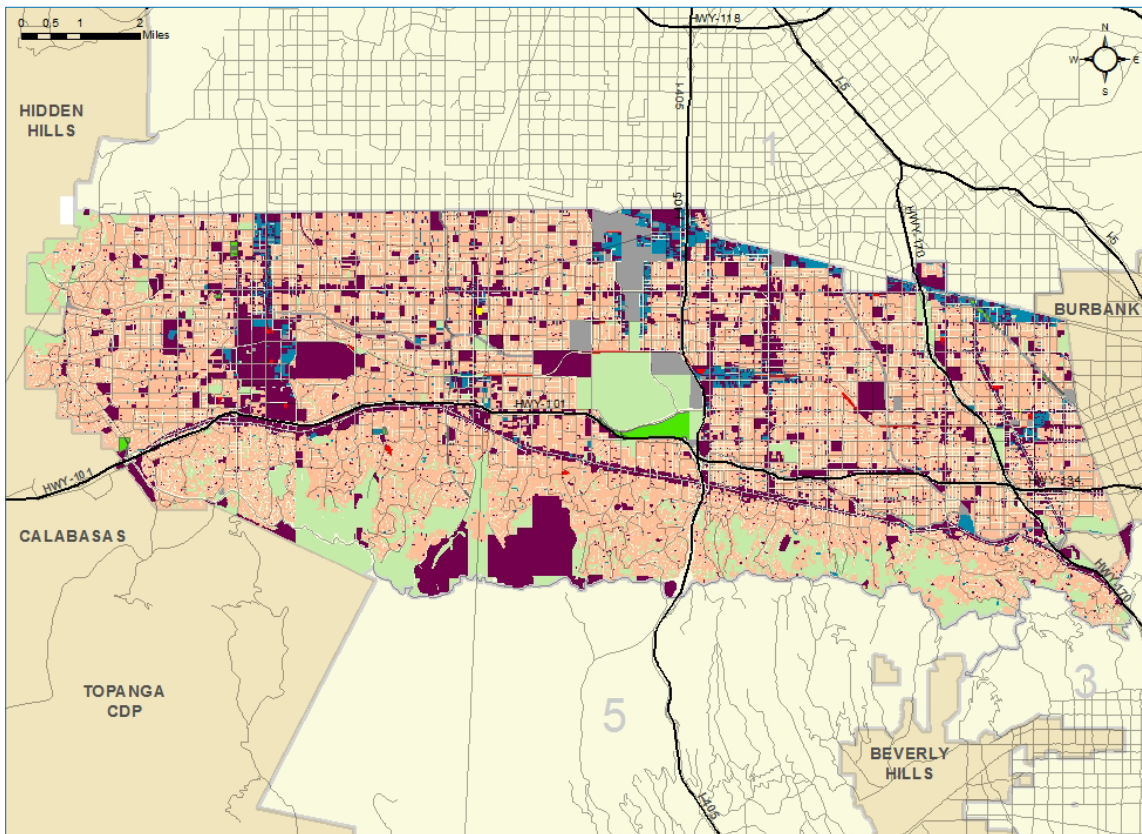
Sources: SCAG; ESRI; LAEDC

Exhibit A-40
Land Use by Type in the North Valley Planning Area

	Acreage (000s)	% of Total
Residential	29.0	42.6%
Commercial	9.7	14.2%
Industrial	4.0	5.9%
Transportation, Communication, Utilities	4.9	7.3%
Open Space and Recreation	2.2	3.2%
Agriculture	0.7	1.1%
Other Land Uses	0.3	0.5%
Vacant	16.8	24.6%
Water	0.3	0.5%
Total Zoned Land Area	68.0	99.8%
Total Land Area	68.1	100.0%

Sources: SCAG; ESRI; LAEDC

Exhibit A-41
Land Use in the South Valley Planning Area



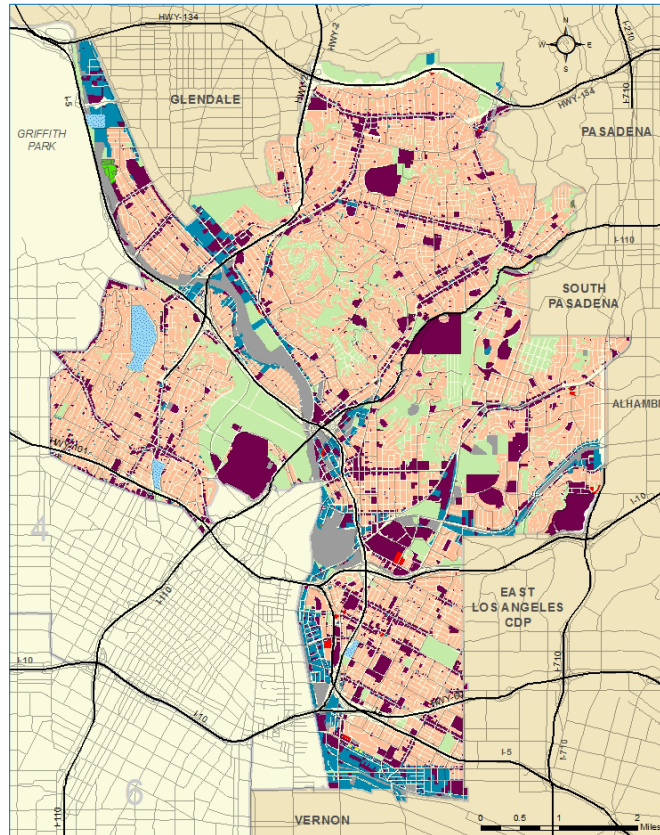
Sources: SCAG; ESRI; LAEDC

Exhibit A-42
Land Use by Type in the South Valley Planning Area

	Acreage (000s)	% of Total
Residential	29.6	59.4%
Commercial	9.7	19.6%
Industrial	1.6	3.3%
Transportation, Communication, Utilities	1.6	3.2%
Open Space and Recreation	2.4	4.7%
Agriculture	0.3	0.7%
Other Land Uses	0.1	0.3%
Vacant	4.3	8.6%
Water	0.0	0.0%
Total Zoned Land Area	49.7	99.8%
Total Land Area	49.8	100.0%

Sources: SCAG; ESRI; LAEDC

Exhibit A-45
Land Use in the East Los Angeles Planning Area



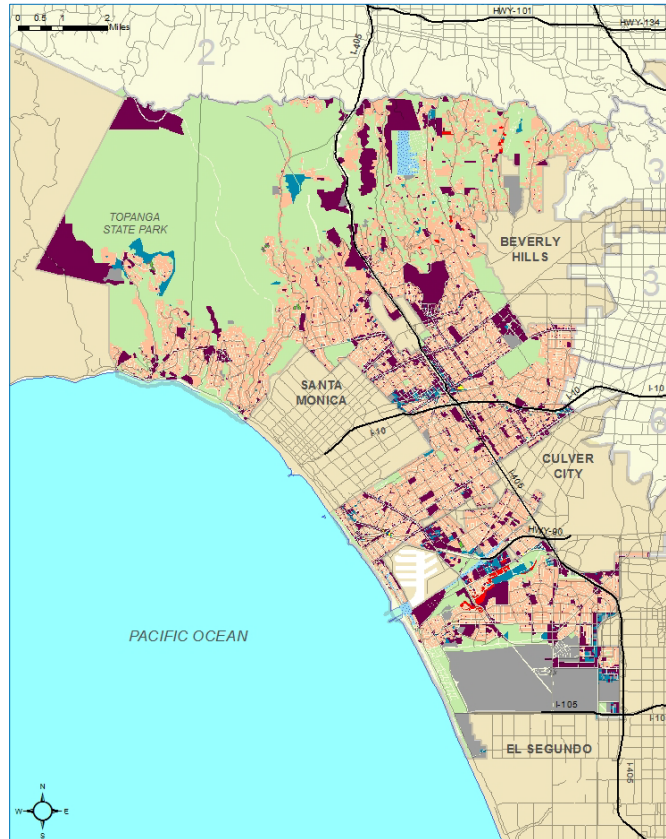
Sources: SCAG; ESRI; LAEDC

Exhibit A-46
Land Use by Type in the East Los Angeles Planning Area

	Acreage (000s)	% of Total
Residential	9.6	52.7%
Commercial	3.2	17.5%
Industrial	1.2	6.6%
Transportation, Communication, Utilities	1.0	5.6%
Open Space and Recreation	1.2	6.4%
Agriculture	0.0	0.2%
Other Land Uses	0.1	0.4%
Vacant	1.8	9.8%
Water	0.2	1.0%
Total Zoned Land Area	18.2	99.9%
Total Land Area	18.2	100.0%

Sources: SCAG; ESRI; LAEDC

Exhibit A-47
Land Use in the West Los Angeles Planning Area



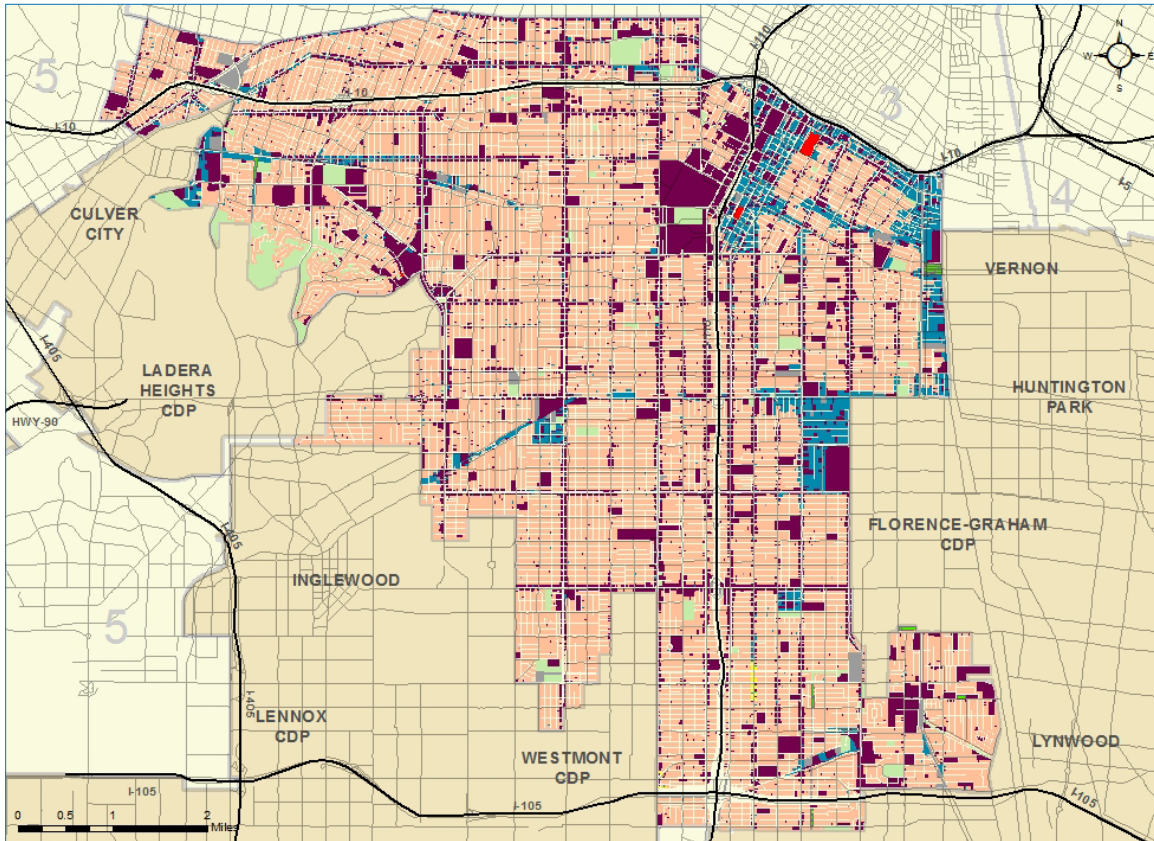
Sources: SCAG; ESRI; LAEDC

Exhibit A-48
Land Use by Type in the West Los Angeles Planning Area

	Acreage (000s)	% of Total
Residential	16.5	33.3%
Commercial	6.6	13.3%
Industrial	1.0	1.9%
Transportation, Communication, Utilities	3.7	7.4%
Open Space and Recreation	2.3	4.7%
Agriculture	0.0	0.1%
Other Land Uses	0.2	0.4%
Vacant	17.0	34.5%
Water	0.3	0.7%
Total Zoned Land Area	47.5	96.3%
Total Land Area	49.4	100.0%

Sources: SCAG; ESRI; LAEDC

Exhibit A-49
Land Use in the South Los Angeles Planning Area



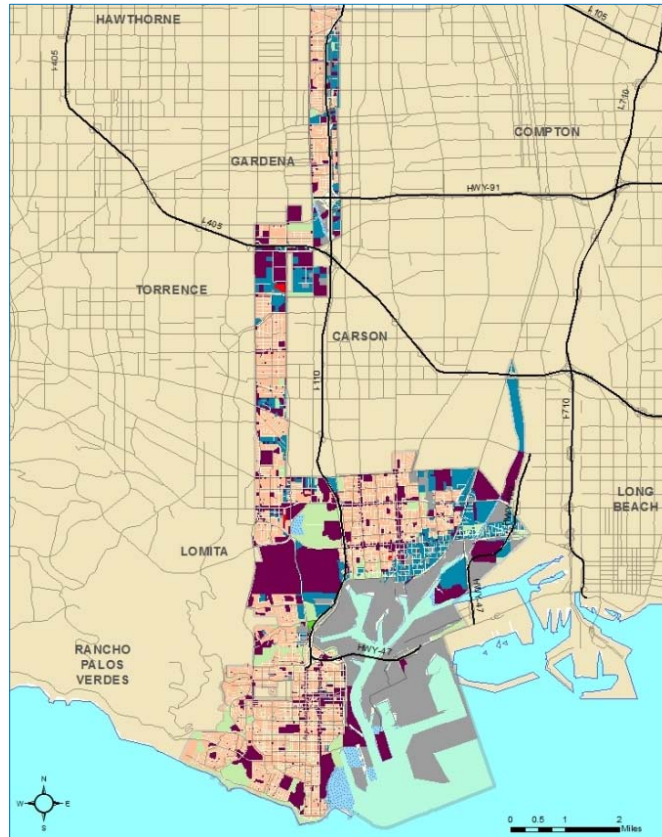
Sources: SCAG; ESRI; LAEDC

Exhibit A-50
Land Use by Type in the South Los Angeles Planning Area

	Acreage (000s)	% of Total
Residential	13.6	68.2%
Commercial	4.1	20.4%
Industrial	1.2	5.8%
Transportation, Communication, Utilities	0.3	1.4%
Open Space and Recreation	0.5	2.4%
Agriculture	0.0	0.2%
Other Land Uses	0.2	0.8%
Vacant	0.1	0.7%
Water	0.0	0.0%
Total Zoned Land Area	19.9	99.9%
Total Land Area	20.0	100.0%

Sources: SCAG; ESRI; LAEDC

Exhibit A-51
Land Use in the Harbor Planning Area



Sources: SCAG; ESRI; LAEDC

Exhibit A-52
Land Use by Type in the Harbor Planning Area

	Acreage (000s)	% of Total
Residential	4.6	30.4%
Commercial	3.6	23.3%
Industrial	1.7	11.1%
Transportation, Communication, Utilities	3.7	24.3%
Open Space and Recreation	0.7	4.6%
Agriculture	0.0	0.3%
Other Land Uses	0.0	0.2%
Vacant	0.5	3.1%
Water	0.4	2.6%
Total Zoned Land Area	15.2	99.8%
Total Land Area	15.3	100.0%

Sources: SCAG; ESRI; LAEDC

Los Angeles County Economic Development Corporation
444 S. Flower Street, 37th Floor
Los Angeles, CA 90071
www.LAEDC.org

