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# Allied Health Workforce Analysis Los Angeles Region

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## Executive Summary

### Overview

Achieving a culturally competent health care workforce is a major focus area for The California Endowment. Part of any strategy to impact this goal should be inclusive of the large number of health care workers often referred to as the “allied health workforce.” This group is comprised of professionals who provide a range of diagnostic, technical, therapeutic and direct patient care services, as well as support services. The field of allied health ranges from entry-level occupations requiring minimal educational investment to highly specialized occupations requiring advanced degree training for entry into practice.

## Objective and Approach

The objective of this series of reports is to describe and analyze the demographic composition of three principal groups in each of The California Endowment regions: the general population, the current health professions workforce and graduates of selected allied health education programs. The report also includes information on current wage levels and projected occupational employment that can be used to evaluate the relationships between wages, employment opportunity and demographic diversity. This report is focused on The California Endowment designated Los Angeles region, which includes Los Angeles, San Bernardino, Riverside, Santa Barbara and Ventura counties.

Nearly 20 allied health occupations were selected for a detailed analysis based on several criteria. First, many of these workers serve as the initial contact, and sometimes the only contact in the health care system, for poor, underserved or special needs communities. Second, many of these occupations represent a substantial degree of job opportunity. They are fast-growing occupations, occupations whose workforce is large in size and thus expected to have many job openings, or both. Finally, these occupations represent a broad range of both educational requirements and practice settings. The spectrum of educational levels ranges from certificates requiring less than one year to complete to master's-level training.

Professional practice settings include inpatient, outpatient, community and the home. The following occupations are described and analyzed in this report:

- Dental Assistant
- Dental Hygienist
- Medical Assistant
- Pharmacy Technician
- EMT/Paramedic
- Home Health Aide
- Nursing Assistant
- Licensed Vocational Nurse
- Nurse Practitioner (Advanced Practice Registered Nurse)
- Physician Assistant
- Psychiatric Technician
- Mental Health Counselor
- Substance Abuse/Behavioral Disorder Counselor
- Mental Health/Substance Abuse Social Worker
- Geriatric Social Worker
- Public/Community Health Educator
- Medical/Public Health Social Worker
- Community Health Worker
- Health Interpreter
- Social/Human Service Assistant

## Data Sources

### *Regional Population*

Estimates from the California Department of Finance Demographic Research Unit and the 2005 American Community Survey Public Use Microdata Sample (PUMS) are used to describe demographic characteristics of the general population in the Los Angeles region. Estimates from the California Department of Finance Demographic Research Unit are used to describe projected changes to the region's general population during the period 2005-2030.

**Descriptions of the demographic composition of the current workforce illustrate the lack of racial and ethnic diversity among health care occupations that require higher levels of education and where earnings are higher.**

### **Current Health Professions Workforce**

Estimates from the 2005 American Community Survey PUMS are used to broadly describe the racial and ethnic composition of the current health professions workforce in the Los Angeles region.

### **Education**

Except for nurse practitioners, all education data are derived from the U.S. Department of Education, Integrated Postsecondary Education Data System (IPEDS). IPEDS is the most comprehensive source for post-secondary education data available. Nurse practitioner program data is from the 2005 California Board of Registered Nursing Annual Schools Survey.

### **Current and Projected Employment and Median Wages**

The 2006 county-level estimates of total employment, hourly/annual wages and county-level employment projections for the period 2004-2014 are from the California Employment Development Department (EDD).

### **Occupational Descriptions**

Occupational titles are defined by the Standard Occupation Code (SOC) system. Descriptions of each occupation and its respective scope of practice are from the 2006-2007 edition of the Occupational Outlook Handbook, published by the U. S. Bureau of Labor Statistics.

### **Data Limitations**

The best possible source of data was used to describe each component of the report. However, the data have limitations that impact the level of analysis that can be conducted. For example, existing data resources do not allow for describing

characteristics of the current health professions regional workforce at the level of individual occupations. Occupations needed to be aggregated into larger groups and thus only broad descriptions are possible.

In several instances there is only a general relationship between the occupational employment data and the education program data. In these cases, data describing education programs that are likely to provide useful training for that occupation are used. And in some cases, the educational institutions that have reported student data represent only a sample of all the training opportunities for that occupation; the number of reported graduates in a given year is likely an underestimate of the total number of graduates. Furthermore, the categories of race/ethnicity are different depending on the source of the data and these categories are often broad, limiting the ability to describe important sub-populations.

These limitations are important and should be considered when drawing conclusions. For example, these data cannot be easily combined to precisely balance the number of jobs for allied health workers (demand) and number of workers available (supply). Employment projections give only a general indication of job growth and employment opportunity. Educators might consider these factors and several others in making decisions to open allied health education programs or increase program size.

Despite these limitations there are several practical uses for this report. Descriptions of the demographic composition of the current workforce illustrate the lack of racial and ethnic diversity among health care occupations that require higher levels of education and where

earnings are higher. The data describing education program graduates indicate how different racial/ethnic groups are potentially distributed as new entrants into the workforce. Estimates of employment and wages describe the wide variation in both workforce size and earnings across allied health occupations. These estimates can be combined with demographic data describing the current workforce and education program graduates, as well as employment projections, to highlight broad allied health workforce trends in the Los Angeles region.

## Summary of Major Findings

### *Current and Projected Population*

The Los Angeles region is unique in that the current general population is nearly a majority-minority. In 2005, the ethnically Hispanic/Latino population represented 45% of the total population and is the largest racial/ethnic group in the region. (In California, the racially White population is still the largest racial/ethnic group representing roughly 43% of the general population.) The racial and ethnic composition of the region, however, varies considerably across the different counties. Los Angeles County is by far the most diverse; 70% of its population is non-White. In both Santa Barbara and Ventura counties, the non-White population represents just 45% of the total population.

There are several key characteristics of the current working age population (ages 18 to 64) that impact the pool of labor available to the allied health workforce. In 2005, the median age of the region's Hispanic/Latino population was 26 years. This is seven years younger than the median

age for the African American population (the next youngest) and roughly 16 years younger than the median age of the region's White population. Approximately 30% of the Hispanic/Latino working age population self-reported speaking English either "not well" or "not at all." And educational attainment among the Hispanic/Latino population over the age of 25 is significantly lower compared with other racial/ethnic groups; just 13% of this population reported having earned at least an associate's degree.

Population projections indicate that the region will undergo a dramatic transformation in the coming decades. The portion of the population over the age of 65 is expected to grow by roughly 120%, increasing from approximately 1.6 million in 2005 to 3.5 million people in 2030. Such substantial growth in this segment of the population has important implications for the size of the health professions workforce needed to respond to an expected increase in demand for health services. The racial and ethnic composition of the region's population will also change significantly over the next 25 years. Total population is projected to increase by roughly 4.5 million and 88% of this population growth will be Hispanic/Latino. In all counties except Santa Barbara, the ethnically Hispanic/Latino population will become the largest racial/ethnic group.

### *Current Workforce*

There is a pattern whereby racial and ethnic diversity diminishes in the workforce as the level of required education (and wages) increase. The most highly trained and well-paid health care professionals are part of the broad group of Health Diagnosing and Treating Practitioners<sup>1</sup>.

<sup>1</sup> Standard Occupation Code (SOC) group 29-1000



In 2005, nearly 80% of this broad group, which includes Nurse Practitioners and Physician Assistants, were either White or Asian. Health Technologists and Technicians<sup>2</sup>, a group which includes Dental Hygienists, EMT/Paramedics, Pharmacy Technicians, Psychiatric Technicians and Licensed Vocational Nurses, are more diverse. The proportion of White and Asian professionals was an estimated 55% of this workforce. Workers in health care support occupations<sup>3</sup>, which are entry-level and often require no more than on-the-job training, are quite racially and ethnically diverse. In 2005, Hispanic/Latino workers represented approximately 44% of this workforce.

Among mental health and social service occupations, the same pattern holds. Counselors<sup>4</sup> and social workers<sup>5</sup> who have higher levels of training, and by assumption who earn more, are far less racially and ethnically diverse. In 2005, 54% of community and social service counselors holding a master's degree or higher were White, but among those counseling professionals holding a

bachelor's degree or less only 32% were White. Equally, 67% of the social work professionals holding a master's degree or higher were racially White. By contrast, just 27% of social work professionals who hold a bachelor's degree or less were White.

### *Current and Projected Employment*

There are county-level differences in estimated wages for several of the selected occupations. Dental Assistants and Dental Hygienists, Medical/Public Health Social Workers and Mental Health/Substance Abuse Social Workers and Substance Abuse/Behavioral Disorder Counselors in Santa Barbara and Ventura counties earn higher wages compared with the rest of the region. Wages for Physician Assistants and Registered Nurses (and we assume Nurse Practitioners) are considerably higher in Los Angeles County compared with other counties in the region. For the other selected occupations, there do not appear to be significant county-level differences in estimated wages.

In terms of absolute size, the workforce in Los Angeles County is much larger than the other counties in the region. The size of the workforce in the Inland Empire (Riverside/San Bernardino counties) is larger than it is in either Santa Barbara County or Ventura County. However, when adjusted for the size of the population, employment levels are more variable.

Occupational employment-to-population ratios give a sense of employment opportunity specific to an occupation; they are taken as a measure of an economy's ability to create jobs. An occupation that has high levels of employment relative to the population

2 Standard Occupation Code (SOC) group 29-2000

3 Standard Occupation Code (SOC) group 31-0000

4 Standard Occupation Code (SOC) group 21-1010

5 Standard Occupation Code (SOC) group 21-1020

indicates that the economy is successful in creating those types of jobs. Employment-to-population ratios for Social/Human Service Assistants, Mental Health/Substance Abuse Social Workers and Home Health Aides are two to three times as large in Santa Barbara County as the rest of the region. In Los Angeles County, the ratios are comparatively large for Registered Nurses (and we assume for Registered Nurse Practitioners), Licensed Vocational Nurses and Nursing Aides. In the Inland Empire, Psychiatric Technicians have a high employment-to-population ratio. There may be simple explanations for why certain counties are successful at creating opportunity for certain types of occupations, such as the clustering of industries in a county, i.e. the number of business establishments like hospitals or recovery and treatment centers.

Employment projections data indicate a general pattern consistent with the notion that population growth drives employment opportunity. Los Angeles, Riverside and San Bernardino counties rank first, second and third out of all counties in the state in terms of the projected population growth in the coming decades. As a result, for most of the occupations selected for analysis in this report, where future employment opportunity is projected to grow rapidly, it is projected to grow most rapidly in these three counties. And because the absolute size of each individual workforce in Los Angeles County is so much larger than other counties in the region, the absolute number of job openings in Los Angeles County is

projected to be considerably greater than other counties in the region. Likewise, the absolute number of job opportunities in the Inland Empire is projected to be greater than in either Santa Barbara County or Ventura County.

Many of the occupations that are fast-growing and that are projected to offer significant employment opportunity are entry-level, low-paying occupations. These are the health care support occupations such as Home Health Aide, Nursing Aide, Dental Assistant and Medical Assistant. In theory, there are step-wise “career ladders” that would lead those working in these occupations to career advancement. Building and supporting career ladders, though, requires significant personal and institutional resources that may not always be available.

However, not all job creation is in low-level support occupations. With the exception of Santa Barbara County, employment opportunity for Dental Hygienists is projected to grow rapidly across the region. And although employment for Registered Nurses (and we assume Registered Nurse Practitioners) isn’t necessarily projected to grow rapidly in all counties, because it is such a large workforce the number of job openings will be significant across the region.

### ***Student Pipeline***

Data describing graduates of the various education programs tends to mirror findings in the analysis of the current workforce. Graduates of programs that lead to employment in low-paying support occupations are comparatively racially and ethnically diverse. In general, as the level of education increases and as admission slots become more competitive, racial and ethnic diversity diminishes. White and Asian students

**...it is among these entry-level allied health support occupations that much of the region's employment opportunity is projected to occur in the coming decade.**

are much more heavily represented in programs that require advanced training and which lead to higher paying jobs.

Hispanic/Latino students are heavily represented in training programs that lead to employment in support occupations such as Dental Assistant, Medical Assistant, Pharmacy Technician and human and social services. However, Hispanic/Latino students are also increasingly well-represented in social work programs at the master's level.

African American students are heavily represented in Psychiatric Technician programs and certificate programs for Substance Abuse/Addiction Counseling and Human Services. In terms of representation in the general population, African American students are not often underrepresented in any of the selected education programs. The African American population represents approximately 8% of the Los Angeles region's total population. It is only in Dental Hygiene programs where African American students represent less than 8% of the total body of graduates.

Native American students rarely form more than 1% of the total number of graduates for any of the selected education programs and in many cases they represent somewhat less than 1% of the total. Again, evaluated in terms of representation in the general population, Native American students would not necessarily be considered underrepresented. The Native American population forms roughly 0.4% of the region's population. It is rare that Native American students represent

less than this as a proportion of the total number of graduates in any of the selected education programs, although there are examples where in certain years, for certain programs, not a single Native American graduate is reported.

### ***Workforce Implications for the Los Angeles Region***

The Los Angeles region has a very diverse pool of labor available to participate in the allied health workforce. In the coming decades, this pool will become even more racially and ethnically diverse. However, the more highly trained, highly paid allied health occupations are far less representative of the region's racial and ethnic profile than occupations at the entrylevel (and at the bottom of the wage scale). Furthermore, it is among these entry-level allied health support occupations that much of the region's employment opportunity is projected to occur in the coming decade.

There are logical and step-wise "career ladders" that are meant to lead from these support positions to more advanced and better paid occupations. These programs are resource-intensive and require more investment and coordination among educators. There are also complex factors of social and cultural capital that circumscribe individual decisions to pursue a career in a specific occupation. The challenge for policymakers and other stakeholders is to better utilize these mechanisms, and to leverage social and cultural factors to promote those populations that have historically been marginalized into the upper ranks of the health care workforce.

**The challenge for policymakers and other stakeholders is to better utilize these mechanisms, and to leverage social and cultural factors to promote those populations that have historically been marginalized into the upper ranks of the health care workforce.**



## Overview

This report presents and analyzes data describing the demographic composition of three principal groups in The California Endowment Los Angeles region (Los Angeles, San Bernardino, Riverside, Santa Barbara, and Ventura counties): the general population, the current health professions workforce and graduates of selected Allied health education programs.

General population data serve as important benchmarks. This report examines demographic features of the current population and the projected population, which allows for comparison with the current health professions workforce and health professions student bodies. It also includes information on current wage levels and projected occupational employment, which can be used to evaluate the relationships between wages, employment opportunity, and demographic diversity.

Demographic features of the current population and projected population are presented first, in order to provide context for the report. This is followed by a brief section that broadly describes race/ethnicity of the current health professions workforce. The remainder of the report is a description and analysis of labor market and education data for nearly 20 selected occupations and education programs, which can all be considered representative of the allied health workforce. They include occupations in health care support, health care practitioners and health care technologists, and in community and social services.

Table 1 displays the list of selected occupations and the most common level of educational attainment required for entry into practice.

**Table 1.**  
*Occupational Title and Common Educational Attainment*

Occupation	Common Educational Attainment
Dental Assistant	Certificate (1-2yr)
Dental Hygienist	Associate's Degree
Medical Assistant	Certificate (1-2yr)
Pharmacy Technician	Certificate (1-2yr)
EMT/Paramedic	Certificate (1-2yr)
Home Health Aide	Certificate (<1yr)
Nursing Assistant	Certificate (<1yr)
Licensed Vocational Nurse	Certificate (1-2yr)
Nurse Practitioner (Registered Nurse)	Master's Degree
Physician Assistant	Certificate (2yr)/Associate's/ Master's Degree (depending on previous education and experience)
Psychiatric Technician	Certificate (1-2yr)/Associate's Degree
Mental Health Counselor	Master's Degree
Substance Abuse / Behavioral Disorder Counselor	Certificate (2yr)/Associate's/Bachelor's/ Master's Degree
Mental Health/ Substance Abuse Social Worker	Master's Degree
Geriatric Social Worker	Bachelor's/Master's Degree
Public/Community Health Educator	Bachelor's/Master's Degree
Medical/Public Health Social Worker	Bachelor's/Master's Degree
Community Health Worker	Certificate/On-the-job training
Health Interpreter	Certificate/On-the-job training
Social/Human Service Assistant	Certificate (1-2yr)/Associate's Degree/ Bachelor's Degree

### Data Limitations

Data sources used to describe the various components in this report are generally the best available. However, each has limitations that impact the level of analysis that can be conducted. First, existing data resources do not allow for describing characteristics of the current health professions regional workforce at the level of individual occupations. Because of the small number of sample observations in the data set, occupations need to be aggregated into larger groups and thus only broad descriptions are possible.

Second, in some cases there is only a general relationship between employment data and education program data. Occupational employment data describe those working in a specific occupation while educational institutions report graduates trained to work in a field, not necessarily in a particular job. In this case, when employment and education data do not directly correspond, we report education data describing programs that are generally associated with the occupation of interest: those that are likely to provide useful training for that occupation. For example, data describing the employment conditions for Medical/Public Health Social Workers has no direct analogue in the education data. We can only report the profile for graduates of general public health or social work programs. Thus, one should be cautious in interpreting and using these data.

Third, because the data describing employment projections and education program graduates only generally correspond, they cannot be combined to

precisely balance the number of jobs for allied health workers (demand) and the number of workers available (supply). For example, the number of reported graduates from Medical Assistant programs in a given year may exceed the projected number of annual job openings for Medical Assistants. This does not necessarily mean that there is a surplus; graduates may work in a related job or may move to find employment in another region. Information on whether there is a surplus or a shortage in a particular occupation is best obtained directly from employers who know the number of vacant positions in their organization as well as how easy or difficult it is to fill open positions. Educators may also have a sense of how easy or difficult it is for their graduates to find employment after graduation. Some educators track the types of jobs and workplace settings in which their new graduates are employed.

Fourth, for several of the selected occupations, the educational institutions reporting program graduate data represent only a sample of all the training opportunities for that occupation. In such cases, the number of reported graduates in a given year is likely an underestimate of the total number of graduates. We were able to identify many educational programs that did not report student data. All educational programs that we were able to identify, whether or not student data were reported, are listed in Appendices D1-D4.

Although these data are subject to limitations, there are several practical uses for this report. Descriptions of the demographic composition of the current workforce, despite being overly general, illustrate the lack of racial and ethnic diversity among health care occupations that involve higher levels of education and earn

higher wages. The data describing education program graduates indicate how different racial/ethnic groups are potentially distributed as new entrants into the workforce. Estimates of employment and wages describe the wide variation in both workforce size and earnings across allied health occupations. These estimates can be combined with demographic data describing the current workforce and education program graduates, as well as the employment projections data, to highlight broad allied health workforce trends in the Los Angeles region. These findings may be useful in guiding workforce planning and identifying areas, populations, and programs that could benefit from support in order to achieve the goal of a culturally competent workforce.

### Employment Projections

There are two principal components of employment projections: occupational growth (new jobs), driven largely by population growth and growth in those industries where such occupations are concentrated; and attrition, the need to replace workers who leave their jobs for whatever reason (in most cases, a new job or retirement). For many occupations, job openings caused by the need to replace workers are more numerous than job openings due to occupational and industrial growth. In some cases, for occupations concentrated in declining industrial sectors, the need to replace workers is the only source of job openings.

There are two principal ways to measure projected growth in employment: relative growth and absolute growth. Relative growth indicates how rapidly the occupation is growing. Absolute growth measures the total

number of jobs. This is an important distinction. An occupation may be growing very rapidly, but if it's a small workforce, the number of new job openings will be relatively few. Conversely, an occupation may be growing very slowly, but if it is a sizeable workforce, the number of new job openings can be very large.

For each selected occupation we provide two rankings: a "fastest-growth" ranking and a "most jobs" ranking. The "fastest-growth" ranking measures only new job openings due to occupational growth, meaning it does not factor in job openings due to replacement needs. The "most jobs" ranking takes into account both components of projected job openings: growth and replacement. The rankings are expressed as a percentile, and are measured against all of the other detailed occupations for which projections were made.

For example, the "fastest-growing" rank for Dental Hygienists for Los Angeles County indicates "Top 1%," this means that job openings for Dental Hygienists are projected to grow more rapidly than 99% of all other occupations in Los Angeles County. The interpretation is the same for the "most jobs" ranking. If the "most jobs" rank column for Dental Hygienists in Santa Barbara county indicates "Bottom 25%," this means that the total number of job openings for Dental Hygienists are projected to number fewer than 75% of all the other occupations in Santa Barbara county.

Also included is the average number of job openings per year for each occupation, by county. This figure combines the projected number of job openings due to growth and job openings due to the need to replace workers.

### Race/Ethnicity Categories Used in Data Sources

The racial/ethnic categories used in this report are derived from multiple data sources, and change depending on which source is being used. In general, the categories include White, African American, Asian, Native American and Hispanic or Latino. “Other race” is used when presenting data describing the current workforce as a category for groups whose numbers are too small for which to reliably calculate estimates; most often this includes Multirace, Native Hawaiian and Pacific Islander, and it sometimes includes Native American as well. The Native American race category always includes American Indian and Alaska Native. Filipinos are also categorized differently depending upon the data source. In the Board of Registered Nursing survey data, Filipinos are reported in their own category. In all other data they are included in the Asian category. The category of Hispanic or Latino ethnicity includes people of any race who self-identify as either Hispanic or Latino.

In the section describing graduates of education programs, we identify only those students for whom race/ethnicity is reported. Students for whom race/ethnicity is unknown or unreported are excluded from the analysis. We also excluded the very small number of students who were reported as non-U.S. citizens except in the case of public health programs, where they are represented in significant numbers. This caveat does not apply to descriptions of the gender composition of education program graduates; gender is fully identified in the data.

In those figures describing the racial/ethnic composition of graduates of a specific education program, the number of students being described is less than the actual total number of students because some proportion (those for whom race/ethnicity was unreported) has been excluded. Thus, the proportions represented will always sum to 100% because they represent 100% of the students for whom race/ethnicity was reported. For most education programs, in most years, the proportion of graduates whose race/ethnicity is unknown is roughly 10%.

Table 2 summarizes the different racial and ethnic categories used by the different data sources.

**Table 2.**  
*Racial/Ethnic Categories by Data Source*

Racial/Ethnic Categories by Data Source
<p><b>2005 American Community Survey</b> White, Asian, African American, Hispanic or Latino, Native American, Native Hawaiian, Other Pacific Islander, Multirace, Some other race</p>
<p><b>Integrated Postsecondary Education Data System (IPEDS)*</b> White, Asian (includes Native Hawaiian/other Pacific Islander), African American, Native American/Alaskan, Hispanic or Latino</p>
<p><b>California Board of Registered Nursing Annual Schools Survey</b> White, Asian non-Filipino (includes Native Hawaiian/other Pacific Islander), Filipino, African American, Native American, Hispanic or Latino</p>
<p><b>California Department of Finance</b> White, African American, Hispanic or Latino, Asian, Native American, Native Hawaiian/Other Pacific Islander, Multirace</p>

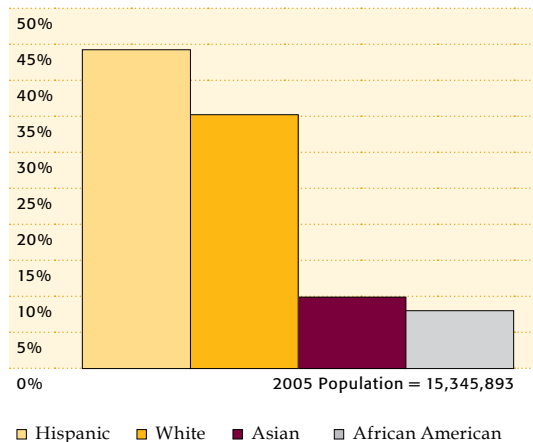
\* IPEDS includes the non-racial/ethnic reporting category of non-U.S. citizen.

## Los Angeles Regional Population Data

The figures and tables in this section (Figures 1 and 2 and Tables 3 through 10) describe characteristics of the *current* (2005) and *projected* (2005-2030) population for the Los Angeles Region (Los Angeles, Riverside, San Bernardino, Santa Barbara and Ventura counties). These data provide a rich description of the region's population and have implications for workforce planning.

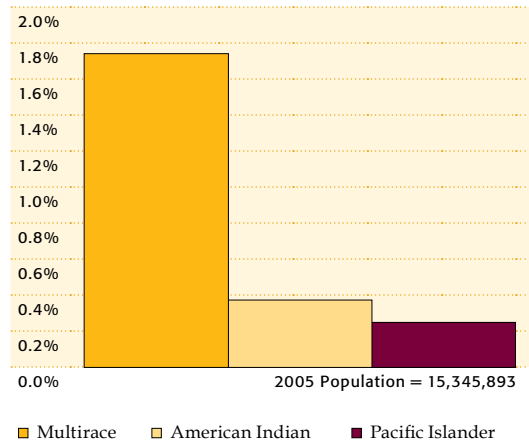
### Characteristics of the Current Population (2005)

**Figure 1.**  
2005 Racial/Ethnic Composition of the General Population (Hispanic/Latino, White, Asian, African American): Los Angeles Region



Source: State of California, Department of Finance, July 2007.

**Figure 2.**  
2005 Racial/Ethnic Composition of the General Population (Multirace, Native American, Native Hawaiian/Pacific Islander): Los Angeles Region



Source: State of California, Department of Finance, July 2007.

More than 10 million people—about 67% of the regional population—live in Los Angeles County. It is by far the most populous and racially and ethnically diverse county of the five in the region. Another 25% of the region's population lives in the Inland Empire (Riverside and San Bernardino counties). The population demographics in these three counties largely determine the demographic composition of the region as a whole, due to their absolute size. The ethnically Hispanic/Latino population is the largest racial/ethnic group in two of these three counties (Los Angeles and San Bernardino). The other two counties in the region, Ventura and Santa Barbara, are much smaller in size and are also less racially and ethnically diverse.



**Table 3.**  
2005 Population Composition (%) by Race/Ethnicity and by County (percentage)

County	White	Hispanic/ Latino	Asian	African American	Multirace	Native American	Native Hawaiian/ Pacific Islander	Total Population
Los Angeles	29.7	46.4	12.7	8.9	1.7	0.3	0.3	10,216,326
Riverside	47.9	39.3	4.1	6.3	1.7	0.5	0.2	1,923,731
San Bernardino	39.1	43.5	5.1	9.4	2.0	0.6	0.3	1,974,119
Santa Barbara	55.4	35.9	4.1	2.3	1.6	0.6	0.2	418,084
Ventura	55.0	35.2	5.5	1.7	1.9	0.5	0.2	813,633
Regional Total	35.3	44.3	10.1	8.0	1.7	0.4	0.2	15,345,893

Source: State of California, Department of Finance, July 2007.

**Table 4.**  
2005 Hispanic/Latino Population by Selected  
National Origin<sup>6</sup>: Los Angeles Region

National Origin	Percent of Los Angeles Region's Hispanic/Latino Population
Mexican	79.9
Central American	11.1
Other Hispanic <sup>7</sup>	4.7
South American	2.1
Puerto Rican	1.0
Cuban	0.8
Dominican	0.1

Source: 2005 American Community Survey PUMS

**Table 5.**  
2005 Asian Population by Selected Group<sup>8</sup>:  
Los Angeles Region

Selected Group	Percent of Los Angeles Region's Asian Population
Filipino	24.8
Chinese (not Taiwanese)	24.8
Korean	15.7
Japanese	8.9
Vietnamese	8.4
Asian Indian	7.2
Other Asian <sup>9</sup>	3.0
Cambodian	2.6
Thai	1.8
Indonesian	1.2
Other South Asian	1.1
Hmong or Laotian	0.5

Source: 2005 American Community Survey PUMS

6 This figure combines the concepts of ethnicity and nationality. It includes both the native-born and foreign-born population, and both U.S. citizen and non-U.S. citizen populations that self-identify as Hispanic in ethnicity, but are also a member of one of the specific groups. The category "Other Hispanic" includes Cuban, Puerto Rican, Dominican Republic and Spaniard, as well as any other self-identified Hispanic or Latino person that did not select one of specific listed groups.

7 Other Hispanic/Latino includes any self-identified Hispanic or Latino person not selecting one of the identified groups.

8 This figure combines the concepts of race, ethnicity, ancestry and nationality. It includes both the native-born and foreign-born population, and both U.S. citizen and non-U.S. citizen populations that self-identify as Asian in race, but are also a member of one of the selected groups. The category "Other Asian" includes Laotian, Pakistani, Sri Lankan, Bangladeshi, Malaysian, Hmong and any other self-identified Asian person who did not choose one of the specific listed groups.

9 Other Asian includes any self-identified Asian not selecting one of the listed groups.

**Table 6.**  
2005 Median Age by Race/Ethnicity:  
Los Angeles Region

Racial/Ethnic Group	Median Age
Multirace	18.2
Hispanic/Latino	26.5
African American	33.1
Native Hawaiian/Pacific Islander	32.8
Native American	33.7
Asian	36.9
White	42.6

Source: 2005 American Community Survey PUMS

**Table 7.**  
2005 General Fertility Rates<sup>10</sup> by Race/Ethnicity:  
Los Angeles Region

Racial/Ethnic Group	General Fertility Rate
Hispanic/Latino	94.8
Native Hawaiian/Pacific Islander	80.3
Asian	52.6
African American	52.2
Multirace	49.9
White	48.0
Native American	35.7

Source: State of California, Department of Public Health, Birth Records

**Table 8.**  
2005 Number of Live Births to Women Ages 15-19 by  
Race/Ethnicity: Los Angeles Region

Racial/Ethnic Group	Number of Live Births in 2005
Hispanic/Latino	18,075
African American	2299
White	2168
Asian	419
Native American	125
Native Hawaiian/Pacific Islander	18
Multirace	N/A

Source: Rand California, Population & Demographic Statistics, County-Level Birth Statistics

**Table 9.**  
Educational Attainment of Population Ages 25 and Over  
by Race/Ethnicity: Los Angeles Region

Racial/Ethnic Group	Proportion of Population Over Age 25 Holding Associate's Degree or Higher
Asian	56.1%
White	45.1%
African American	32.2%
Native American	30.1%
Hispanic/Latino	12.8%

Source: 2005 American Community Survey PUMS

**Table 10.**  
Hispanic/Latino Population Ages 18-64 by Self-Reported  
Ability to Speak English: Los Angeles Region

Self-Reported Ability to Speak English	Proportion of Los Angeles Region's Hispanic/Latino Population (Ages 18-64)
Very Well	50.0%
Well	19.3%
Not Well	19.1%
Not At All	11.6%

Source: 2005 American Community Survey PUMS

<sup>10</sup> General fertility rates measure live births per 1,000 women of child-bearing age (15-44 years old).

**In 2005, roughly 30% of the Hispanic/Latino population of working age reported speaking English “not well” or “not at all”.**

### Summary Current Population

The striking characteristic of the current population in the Los Angeles region is that the ethnically Hispanic/Latino population is nearly a majority-minority, in contrast to the state as a whole. However, there is substantial variation in the racial/ethnic composition of the region across the different counties. Los Angeles County is by far the largest and most diverse in the region. Ninety-two percent of the population lives in three of the five counties that constitute the Los Angeles region: Los Angeles, San Bernardino and Riverside. The demographic composition of the region is largely determined by these three counties, due to their absolute size.

Data indicate that in 2005 roughly 45% of the region’s general population was Hispanic/Latino, which translates into roughly 6.7 million people (of which nearly 70% reside in Los Angeles County). Of these 6.7 million, approximately 80% self-identified as Mexican by national origin and another 11% as Central American. The Hispanic/Latino population is also considerably younger than other racial/ethnic groups (except those who are identified as Multirace). In 2005, the median age among Hispanics or Latinos was 26.5 years of age. By contrast, the median age for Asians was 36.9 and 42.6 for Whites.

There are several other important characteristics of the region’s Hispanic/Latino population, including fertility rates among birth-age women, the self-reported ability to speak English among the working age population (ages 18-64) and the level of educational attainment among the population ages 25 or older. In 2005, roughly 30% of the Hispanic/Latino population of working age reported speaking English

“not well” or “not at all”. Additionally, the level of educational attainment among the region’s Hispanic/Latino population ages 25 and over is comparatively low. In 2005, approximately 13% of this subpopulation reported having earned an associate’s degree or higher, which is a significantly smaller proportion than other racial/ethnic groups. The general fertility rate among Hispanic/Latino women of birth age (15-44) was greater than other racial/ethnic groups<sup>11</sup>, and the number of live births in 2005 to 15-19 year-olds was substantially greater among Hispanic/Latino women than in other racial/ethnic groups. These are all important factors that shape the composition of the potential regional labor force generally, and by extension the composition of the pool of labor available to the allied health workforce.

### Regional Population Projections by Age and by Race/Ethnicity

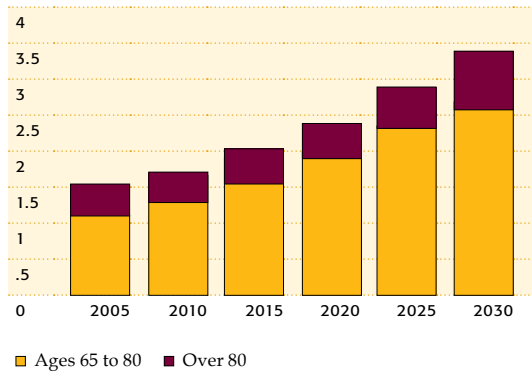
Figure 3 describes the projected regional population by age; figures 4 through 6 describe the projected regional population by race/ethnicity. Population projections are based on models designed by the California Department of Finance, Demographic Research Unit<sup>12</sup>. The key inputs to these models are population counts from the 2000 Census and data describing fertility and mortality rates and migration patterns. The models make certain assumptions—about the different rates of survival and fertility, and about the different migration patterns for specific demographic groups—that are converted into numeric factors. These factors are applied to the 2000 Census population counts and projections are made by age, gender and race/ethnicity for each county in California.

<sup>11</sup> The exception is the Native Hawaiian/Pacific Islander population, but because the absolute size of this group is so much smaller in size, the impact of its high general fertility rate is not comparable.

<sup>12</sup> The Demographic Research Unit at the California Department of Finance provides a more technical explanation of the modeling process at <http://www.dof.ca.gov/HTML/DEMOGRAP/ReportsPapers/Projections/P1/P1.asp>



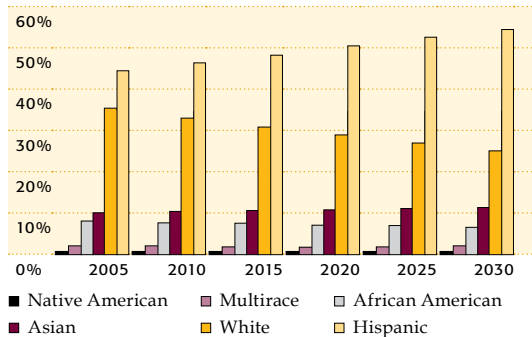
**Figure 3.**  
2005-2030 Population Projections for California's Population over the Age of 65: Los Angeles Region (in millions)



Source: State of California, Department of Finance, July 2007.

Figure 3 shows that between 2005 and 2030, the regional population is projected to experience tremendous growth in the retirement age population (65 years of age and over). This group is projected to grow by roughly 120%, from 1.6 million to roughly 3.5 million. Such substantial growth in this segment of the population has important implications for the size of the health professions workforce needed to respond to an expected increase in demand for health services.

**Figure 4.**  
2000-2030 Projected Population by Race Ethnicity: Los Angeles Region

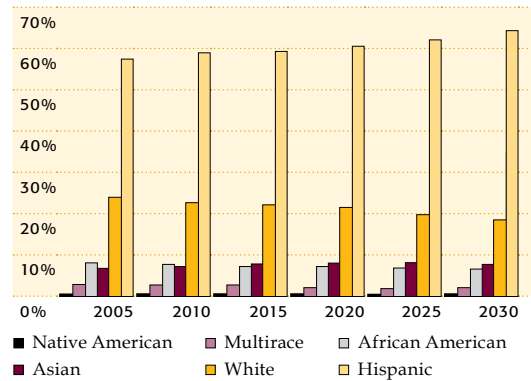


Source: State of California, Department of Finance, July 2007.

Both the ethnically Hispanic/Latino population and the Asian population are projected to increase as proportions of the general population in the Los Angeles region. By 2030, it is expected that roughly 54% of the region's population will be Hispanic/Latino. Between 2005 and 2030, the regional Asian population is projected to increase from 10% to 11% of the total. Both the White and the African American populations are expected to decline as proportions of the total. For the region's White population this decline will be dramatic.

**Between 2005 and 2030, the regional population is projected to experience tremendous growth in the retirement age population (65 years of age and over). This group is projected to grow by roughly 120%, from 1.6 million to roughly 3.5 million.**

**Figure 5.**  
2000-2030 Projected Population Ages 18 and Under by Race/Ethnicity: Los Angeles Region

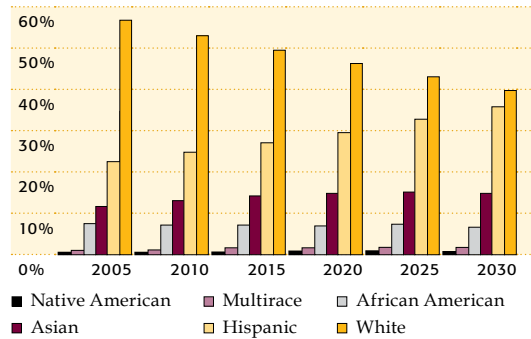


Source: State of California, Department of Finance, July 2007.

The region's population under the age of 18 represents the future labor force, and by extension the pool of labor available to participate in the allied health workforce. By 2030, it is projected that approximately 64% of the region's population under the age of 18 will be ethnically Hispanic/Latino.

**By 2030, it is expected that nearly six out of every ten residents of Los Angeles County will be Hispanic/Latino.**

**Figure 6.**  
2000-2030 Projected Population Ages 65 and Over by Race/Ethnicity: Los Angeles Region



Source: State of California, Department of Finance, July 2007.

The region’s population over the age of 65 represents a group that is expected to demand health services in greater amounts. In 2005, well over half of the population in this age group was racially White. In the coming decades, the Hispanic/Latino population will form a larger proportion of this population. By 2030 it is projected that these two groups will be nearly equal in size.

### Summary of Regional Population Projections

By 2030, it is projected that the Hispanic/Latino population will be the largest racial/ethnic group in four of the region’s five counties (the exception is Santa Barbara County). By contrast, the region’s racially White population is projected to decline not only as a proportion of the region’s total population, but in number as well. Projections indicate that the White population will decline by roughly 400,000 over the coming decades. This decline will be experienced most acutely in Los Angeles County, where by 2030, the White population is expected to shrink to just 75% of its 2005 total.

In terms of the absolute change in total population projected to occur between 2005 and 2030, Los Angeles, Riverside and San Bernardino counties rank first, second and third among all counties in the state. As a result, the total population in the region is

**Table 11.**  
Los Angeles Region Population Estimates by Race/Ethnicity: 2005 and 2030 (as a percentage)

Region	White		Hispanic/Latino		Asian		African American		Multirace		Native American		Native Hawaiian/Pacific Islander	
	2005	2030	2005	2030	2005	2030	2005	2030	2005	2030	2005	2030	2005	2030
Los Angeles	29.7	19.3	46.4	57.0	12.7	14.8	8.9	6.3	1.7	2.0	0.3	0.3	0.3	0.3
Riverside	47.9	36.5	39.3	49.6	4.1	5.9	6.3	5.8	1.7	1.6	0.5	0.5	0.2	0.1
San Bernardino	39.1	24.7	43.5	54.3	5.1	6.4	9.4	11.4	2.0	2.3	0.6	0.6	0.3	0.3
Santa Barbara	55.4	46.9	35.9	41.7	4.1	4.7	2.3	3.9	1.6	1.7	0.6	0.7	0.2	0.2
Ventura	55.0	42.7	35.2	47.7	5.5	5.5	1.7	1.3	1.9	2.1	0.5	0.4	0.2	0.2
Regional Total	35.3	25.0	44.3	54.4	10.1	11.2	8.0	6.6	1.7	2.0	0.4	0.4	0.2	0.3

Source: California Department of Finance

projected to grow by 4.5 million people. Roughly 88% of this increase will come from growth in the ethnically Hispanic/Latino population. By 2030, it is expected that nearly six out of every ten residents of Los Angeles County will be Hispanic/Latino.

The Asian population is projected to grow most rapidly in Riverside and San Bernardino counties. The African American population is projected to decline in Los Angeles County, but to grow significantly in Riverside, San Bernardino and Santa Barbara counties. All other racial/ethnic groups are projected to experience growth, but because they are currently small in absolute size, their relative proportions among the region's total population are expected to grow only slightly.

In addition to the projected shifts in the racial and ethnic composition of the region's population over the coming decades, growth in the retirement age population will also be an important phenomenon. This group is projected to grow by approximately 120%, from 1.6 million to roughly 3.5 million. Such substantial growth in this segment of the population has important implications for the size of the health professions workforce needed to respond to an expected increase in demand for health services.

While there are several important factors that explain these projected population changes, the following stand out. One is the fact that the general fertility rate among Hispanic/Latino women is considerably higher compared with other groups; another is the

very large number of live births to Hispanic/Latino women between the ages of 15 and 19. The general fertility rate among Hispanic/Latino women of birth age is roughly twice the fertility rate of White women. And the number of live births in 2005 to young Hispanic/Latino women between the ages of 15 and 19 was nearly nine times as large as the number of live births to young White women or young African American women. Equally, the median age of the region's Hispanic/Latino population is roughly 16 years younger than the median age of the region's White population. It is a young population group overall and is getting younger as a result of very high teen birth rates. These phenomena not only are driving the dramatic changes that will transform the population in the Los Angeles region, but have important implications with respect to educational preparation, and thus the pool of labor available to participate in the region's future allied health workforce.

## Current Regional Workforce

Because this analysis is focused on a sub-state geographic region we were not able to obtain estimates of the demographic composition for individual occupations. The number of sample observations in the 2005 American Community Survey is too small to produce reliable estimates at that level of detail. The second best option is to use broader occupational groupings derived from the Standard Occupation Code (SOC) classification system.

All of the occupations selected for analysis are represented by one of several broad groups<sup>13</sup>:

- Health Diagnosing and Treating Practitioners (SOC 29-1000)
- Health Technologists and Technicians
- Health Care Support Occupations
- Community and Social Service Counselors
- Community Social Service Social Workers
- Miscellaneous Community and Social Service Specialists

Tables 12 to 19 present information describing the racial/ethnic composition of these broad groups of health care occupations in the Los Angeles region.

**Table 12.**  
2005 Racial/Ethnic Composition of Health Diagnosing and Treating Practitioners: Los Angeles Region

Racial/Ethnic Group	Proportion of Workforce
White	49.4%
Asian	29.3%
Hispanic/Latino	11.9%
African American	7.2%
Multirace	1.2%
Other Race*	1.0%

\* Other race includes American Indian and Native Hawaiian. Source: 2005 American Community Survey PUMS

Health Diagnosing and Treating Practitioner occupations are those that generally require the highest levels of education and are the highest paid in health care. Occupations selected for analysis in this report that are among this broad occupational group are **Registered Nurse Practitioners** and **Physician Assistants**. Roughly eight out of ten health professionals in this broad group are either White or Asian.

**Table 13.**  
2005 Racial/Ethnic Composition of Health Technologists and Technicians: Los Angeles Region

Racial/Ethnic Group	Proportion of Workforce
White	37.2%
Hispanic/Latino	28.3%
Asian	18.6%
African American	13.7%
Multirace	1.4%
Other Race*	0.8%

\* Other race includes American Indian and Native Hawaiian. Source: 2005 American Community Survey PUMS

Health Technologists and Technicians include several of the selected allied health occupations: **Dental Hygienists, Emergency Medical Technicians and Paramedics, Pharmacy Technicians, Psychiatric Technicians, and Licensed Vocational Nurses**. These occupations typically require an associate’s degree for entry into practice, and while certain of these occupations earn excellent wages, taken together they are less well-paid than are diagnosing and treating practitioners. The racial and ethnic composition of this group is considerably more diverse than diagnosing and treating practitioners.

**Table 14.**  
2005 Racial/Ethnic Composition of Health Care Support Occupations: Los Angeles Region

Racial/Ethnic Group	Proportion of Workforce
Hispanic/Latino	44.3%
White	27.0%
Asian	15.2%
African American	10.9%
Multirace	1.5%
Other Race*	1.1%

\* Other race includes American Indian and Native Hawaiian. Source: 2005 American Community Survey PUMS

<sup>13</sup> The specific occupations that are represented by these broad groups are detailed in Appendix A: Detailed Listing of Occupations Represented by Broad Standard Occupation Code Groups Used in this Report.

Health Care Support occupations are entry-level health care positions that are at the bottom of the wage scale and in terms of education, typically require no more than a one-year training program. In fact, many who work in these occupations are trained on the job. Occupations selected for analysis in this report that are represented by this broad group include: **Nursing Aides, Home Health Aides, Dental Assistants, and Medical Assistants.** Roughly 44% of this regional workforce is Hispanic/Latino. It is far more racially and ethnically diverse than health care occupations that require higher levels of education, and for which wages are significantly higher.

**Table 15.**  
2005 Racial/Ethnic Composition of Community and Social Service Counselors Holding a Master’s Degree or Higher: Los Angeles Region

Racial/Ethnic Group	Proportion of Workforce
White	54.1%
Hispanic/Latino	22.4%
Asian	11.9%
African American	8.4%
Other Race*	3.2%

\* Other race includes American Indian and Native Hawaiian. Source: 2005 American Community Survey PUMS

**Table 16.**  
Racial/Ethnic Composition of Community and Social Service Counselors Holding a Bachelor’s Degree or Less: Los Angeles Region

Racial/Ethnic Group	Proportion of Workforce
Hispanic/Latino	32.2%
White	31.6%
African American	19.1%
Asian	13.2%
Other Race*	3.9%

\* Other race includes American Indian and Native Hawaiian. Source: 2005 American Community Survey PUMS

**Table 17.**  
2005 Racial/Ethnic Composition of Community and Social Service Social Workers Holding a Master’s Degree or Higher: Los Angeles Region

Racial/Ethnic Group	Proportion of Workforce
White	67.4%
Hispanic/Latino	14.7%
African American	9.9%
Asian	6.0%
Other Race*	2.0%

\* Other race includes Multirace, American Indian and Native Hawaiian. Source: 2005 American Community Survey PUMS

The broad group of Community and Social Service Counselors includes the following occupations selected for analysis in this report: **Substance Abuse & Behavioral Disorder Counselors and Mental Health Counselors.**

This group was divided into two, in order to see how the racial and ethnic composition changes as the level of educational attainment changes. The data indicate that there is less racial and ethnic diversity as the level of educational attainment increases. Roughly 32% of Social and Community Service Counselors who hold a bachelor’s degree or less are Hispanic/Latino. But among counselors holding a master’s degree or higher, this proportion falls to 22%. This is also true for African American and Asian Social and Community Service Counselors; they are less represented among counselors with higher levels of educational attainment.

**Table 18.**

2005 Racial/Ethnic Composition of Community and Social Service Social Workers Holding a Bachelor's Degree or Less: Los Angeles Region

Racial/Ethnic Group	Proportion of Workforce
Hispanic/Latino	36.6%
White	26.5%
African American	19.7%
Asian	14.7%
Other Race*	2.5%

\* Other race includes Multirace, American Indian and Native Hawaiian. Source: 2005 American Community Survey PUMS

The broad group of Community and Social Service Social Workers includes the following occupations selected for analysis in this report: **Medical and Public Health Social Workers and Mental Health and Substance Abuse Social Workers**. This group has also been divided into two separate groups in order to see how the racial and ethnic composition changes as the level of educational attainment changes. As with Social and Community Service Counselors, the data indicate that there is less racial and ethnic diversity as the level of educational attainment increases. For example, Hispanic/Latino is the largest racial/ethnic group among social workers who hold a bachelor's degree or less, forming roughly 37% of the total. But among social workers that hold a master's degree or higher, they represent just 15% of the total. This is also true for African American and Asian social workers; they are less represented among social workers with higher levels of educational attainment.

**Table 19.**

2005 Racial/Ethnic Composition of Miscellaneous Community and Social Service Specialists: Los Angeles Region

Racial/Ethnic Group	Proportion of Workforce
White	38.1%
Hispanic/Latino	36.8%
African American	17.4%
Asian	6.2%
Other Race*	1.5%

\* Other race includes Multirace, American Indian and Native Hawaiian. Source: 2005 American Community Survey PUMS

The broad group of miscellaneous community and social service specialists includes both **Health Educators and Social and Human Service Assistants**. This later group of occupations is rather broad, but includes entry-level paraprofessionals that would be generally considered part of the allied health workforce. The level of educational attainment among community and social service specialists ranges from 2-year certificate programs to the master's level. Due to limitations of the data, it was not possible to produce estimates that would indicate how racial and ethnic composition changes based on educational attainment. However, one would expect segments of this workforce where educational attainment was higher (and thus higher wages) to be less racially and ethnically diverse by comparison.

### Summary of Current Regional Workforce

Although it was not possible to analyze the region's allied health care workforce at the level of individual occupations, grouping the workforce into broader occupational categories illustrates some important characteristics. There is clearly a

pattern whereby racial and ethnic diversity diminishes in the workforce as the level of required education, with its accompanying higher wages, increases. Among the most highly paid, highly trained health care professionals there is the least amount of racial and ethnic diversity. And in community/social service occupations, it is clear that counselors and social workers who have higher levels of training, and by assumption who earn more, are less racially and ethnically diverse. Conversely, the racial and ethnic composition of health care support occupations, which often require no more than on-the-job training and are at the bottom of the wage scale, is very diverse.

By contrast, licensed Registered Dental Assistants have a considerably wider scope of practice that involves many more technical procedures. In fact, there is a fair amount of overlap between the Registered Dental Assistant scope of practice and the registered Dental Hygienist scope of practice. The key difference is that for those procedures that Registered Dental Assistants and Registered Dental Hygienists share in common, state regulations require that a supervising Dentist be physically present when performed by the Dental Assistant. The registered Dental Hygienist would be allowed to perform the same procedure without a Dentist physically present.<sup>14</sup>

## Labor Market and Education Data by Occupation

### DENTAL ASSISTANT

#### Description

Registered Dental Assistants are licensed in California by the Committee on Dental Auxiliaries. However, Dental Assistants may also work as unlicensed professionals. By law, unlicensed Dental Assistants perform only very basic tasks to support a dentist. Their scope of practice includes preparing patients for treatment, obtaining dental records, sterilizing and disinfecting instruments and equipment, preparing trays of instruments and a limited number of technical procedures.

#### Employment, Wage and Education Data

Tables 20 and 21 display information on current employment, employment-to-population, wage and expected occupational growth for Dental Assistants in the Los Angeles region. Figures 7 and 8 describe the gender and racial/ethnic composition for reported graduates of dental assistant programs in the Los Angeles region during the period 2001-2005.

**Table 20.**

*2006 Dental Assistant Estimated Employment, Employment per Population and Median Hourly/Annual Wage by County*

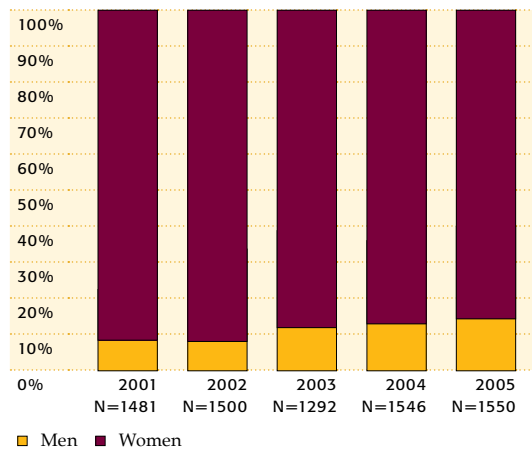
County	Estimated Employment	Estimated Employment per 100,000 Population	Median Hourly	Median Annual
Los Angeles	9,700	94.9	\$ 13.30	\$ 27,664
Riverside/San Bernardino	3,350	85.9	\$ 13.55	\$ 28,184
Ventura	750	92.2	\$ 16.22	\$ 33,738
Santa Barbara	470	112.4	\$ 15.97	\$ 33,218

<sup>14</sup> A table listing allowable duties by type of dental auxiliary is available on the COMDA website at <http://www.comda.ca.gov/index.html>

**Table 21.**  
2004–2014 Dental Assistant Employment Projections/Rankings by County

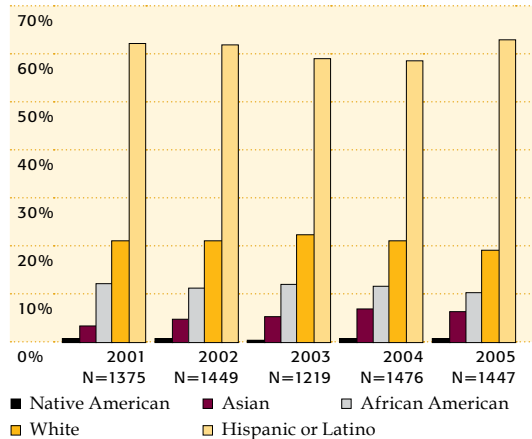
County	Fastest Growth Rank	Most New Jobs Rank	Avg. No. of Job Openings/Year
Los Angeles	Top 1%	Top 15%	713
Riverside/San Bernardino	Top 1%	Top 15%	242
Ventura	Top 10%	Top 20%	42
Santa Barbara	Top 40%	Top 25%	24

**Figure 7.**  
2001-2005 Gender Composition for Reported Graduates of Dental Assistant Programs: Los Angeles Region



Source: Integrated Postsecondary Education Data System (IPEDS)

**Figure 8.**  
2001-2005 Racial/Ethnic Composition for Reported Graduates of Dental Assistant Programs: Los Angeles Region



Source: Integrated Postsecondary Education Data System (IPEDS)

**Summary: Dental Assistant**

The regional Dental Assistant workforce is comparatively large and is projected to grow rapidly and offer significant opportunities for employment over the next decade. Occupational growth is projected to be most significant in Los Angeles, Riverside and San Bernardino counties. This is most likely the result of the expected population growth in these three counties. However, estimated wages are higher in both Santa Barbara and Ventura counties. Because employment-to-population ratios are as great or greater in both of these counties compared with the rest of the region, it seems unlikely that higher wages are the result of a smaller supply of workers.

Dental Assistant programs are mainly one year in length, resulting in a certificate. The most frequent institution type is private, for-profit and less than two-years. The schools reporting to IPEDS are only a sample of all those that train Dental Assistants in the Los Angeles region. However, we believe this is a representative sample of both public and private, for-profit and not-for-profit, two-year and less than two-year programs.

Graduates of Dental Assistant programs are predominately female; 85%-90% of reported graduates are women. Roughly six out of



ten graduates are ethnically Hispanic or Latino (55-60%). Both the Hispanic/Latino and African American populations are overrepresented among graduates of Dental Assistant programs compared to their representation in the general population.

The schools producing greatest number of graduates in the Los Angeles region include:

- United Education Institute (multiple campuses)
- Bryman College (multiple campuses)
- American Career College – Los Angeles



## DENTAL HYGIENE

### Description

Registered Dental Hygienists (RDH) are licensed in California by the Committee on Dental Auxiliaries. The RDH scope of practice includes removing soft and hard deposits from teeth, teaching patients how to practice good oral hygiene and providing other preventive dental care. Hygienists examine patients’ teeth and gums and record the presence of diseases or abnormalities.

They remove calculus, stains and plaque from teeth; perform root planning as a periodontal therapy; take and develop dental x-rays; and apply cavity-preventive agents such as fluorides and pit and fissure sealants. With additional training, and under the direct supervision of a Dentist, Registered Dental Hygienists in California can deliver local anesthesia as well as nitrous oxide and oxygen.

### Employment and Wage Data

Tables 22 and 23 display information on current employment, employment-to-population ratios, wages and expected occupational growth for Dental Hygienists in the Los Angeles region. Figures 9 and 10 describe the gender and racial/ethnic composition for reported graduates of Dental Hygienist programs in the Los Angeles region during the period 2001-2005.

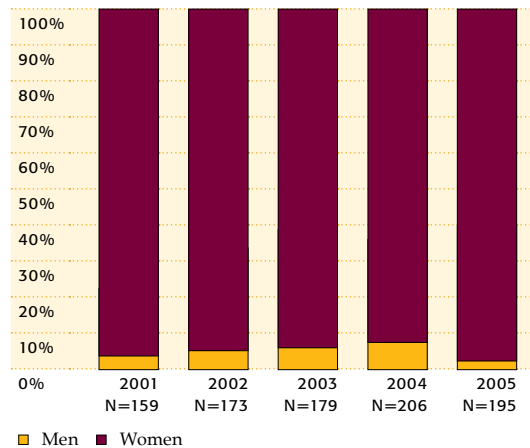
**Table 22.** 2006 Dental Hygienist Estimated Employment, Employment per Population and Median Hourly/Annual Wage by County

County	Estimated Employment	Estimated Employment per 100,000 Population	Median Hourly	Median Annual
Los Angeles	6,760	66.2	\$ 34.30	\$ 71,344
Riverside/San Bernardino	1,240	31.8	\$ 34.53	\$ 71,822
Ventura	480	59.0	\$ 36.90	\$ 76,752
Santa Barbara	320	76.5	\$ 36.29	\$ 75,483

**Table 23.** 2004–2014 Dental Hygienist Employment Projections/ Rankings by County

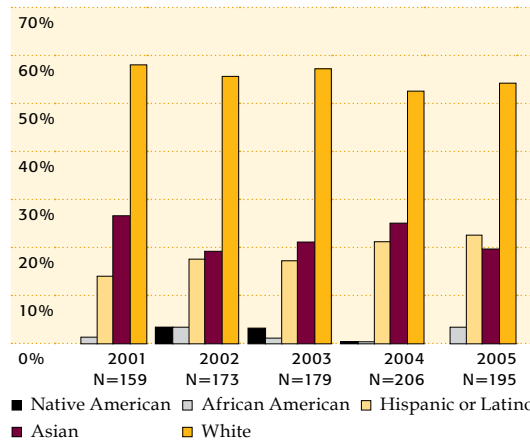
County	Fastest Growth Rank	Most New Jobs Rank	Average Number of Job Openings/Yr.
Los Angeles	Top 1%	Top 25%	254
Riverside/San Bernardino	Top 1%	Top 30%	78
Ventura	Top 10%	Top 40%	20
Santa Barbara	Top 25%	Top 50%	4

**Figure 9.**  
2001-2005 Gender Composition for Reported Graduates of Dental Hygiene Programs: Los Angeles Region



Source: Integrated Postsecondary Education Data System (IPEDS)

**Figure 10.**  
2001-2005 Racial/Ethnic Composition for Reported Graduates of Dental Hygiene Programs: Los Angeles Region



Source: Integrated Postsecondary Education Data System (IPEDS)

**Summary: Dental Hygienist**

The Registered Dental Hygienist is one of the higher paid occupations in the allied health workforce. It is also one of the fastest-growing occupations in the Los Angeles region. Overall, growth is expected to occur most rapidly in

Los Angeles, Riverside and San Bernardino counties. This is very likely the result of the expected population growth in these three counties. The Registered Dental Hygienist workforce is roughly two-thirds the size of the Dental Assistant workforce, but wages are roughly two to three times as high.

Six of the region’s eight Dental Hygiene education programs offer degrees at the associate’s level. The two largest programs in terms of the annual number of graduates produced are at the University of Southern California (USC) and Loma Linda, both of which offer baccalaureate programs. The region produces roughly 175 to 200 graduates per year; over 90% are women. Roughly half of these graduates are White. In combination, White and Asian graduates account for approximately 65-75% of the graduating student body each year. Hispanic/Latino graduates represent roughly 20% of the annual number of graduates, and just 5% are African Americans. There are very few Native American students pursuing education in Dental Hygiene in the Los Angeles region. In any given year the total number of reported graduates ranges from zero to five.

Programs in the Los Angeles region include:

- Cerritos College
- Oxnard College
- Pasadena City College
- USC
- West Los Angeles College
- Loma Linda
- Riverside Community College
- San Joaquin Valley College



## MEDICAL ASSISTANT

### Description

The Medical Assistant is an unlicensed occupation. Medical Assistants perform a variety of administrative and clinical tasks to keep the offices of physicians, podiatrists, chiropractors, and other health practitioners running smoothly. The scope of practice of Medical Assistants varies from office to office, depending on the location and size of the practice and the practitioner’s specialty. In small practices, Medical Assistants are usually generalists, handling both administrative

and clinical duties and reporting directly to an office manager, physician, or other health practitioner. In larger practices and clinics, Medical Assistants tend to specialize in a particular area, under the supervision of department administrators. Clinical duties vary according to state law and include taking medical histories and recording vital signs, explaining treatment procedures to patients, preparing patients for examination and assisting the physician during the examination.

### Employment and Wage Data

Tables 24 and 25 display information on current employment, employment-to-population ratios, wages and expected occupational growth for Medical Assistants in the Los Angeles region. Figures 11 and 12 describe the gender and racial/ethnic composition for reported graduates of Medical Assistant programs in the Los Angeles region during the period 2001-2005.

**Table 24.**

2006 Medical Assistant Estimated Employment, Employment per Population and Median Hourly/Annual Wage by County

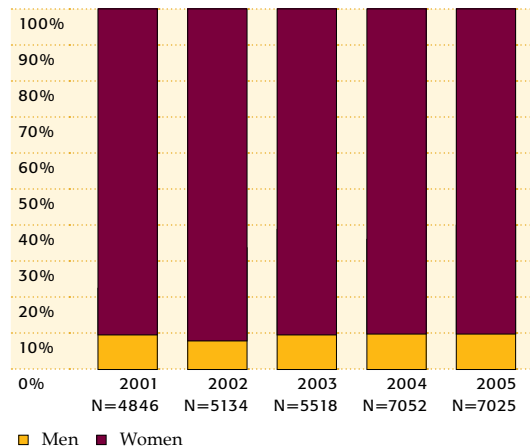
County	Estimated Employment	Estimated Employment per 100,000 Population	Median Hourly	Median Annual
Los Angeles	15,140	148.2	\$ 14.40	\$ 29,952
Riverside/San Bernardino	7,260	186.3	\$ 12.08	\$ 25,126
Ventura	1,510	185.6	\$ 14.24	\$ 29,619
Santa Barbara	640	153.1	\$ 12.99	\$ 27,019

**Table 25.**

2004–2014 Medical Assistant Employment Projections/Rankings by County

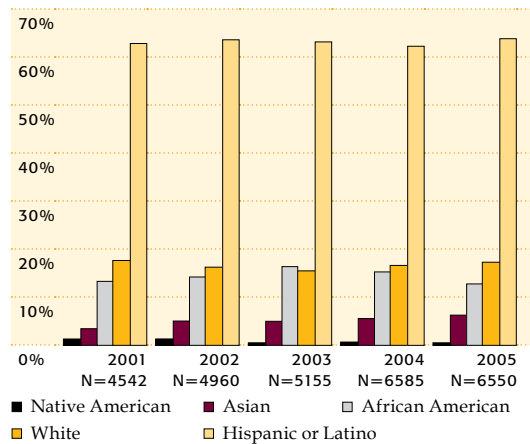
County	Fastest Growth Rank	Most New Jobs Rank	Average Number of Job Openings/Yr.
Los Angeles	Top 1%	Top 15%	819
Riverside/San Bernardino	Top 10%	Top 15%	269
Ventura	Top 1%	Top 15%	89
Santa Barbara	Top 25%	Top 10%	56

**Figure 11.**  
2001-2005 Gender Composition for Reported Graduates of Medical Assistant Programs: Los Angeles Region



Source: Integrated Postsecondary Education Data System (IPEDS)

**Figure 12.**  
2001-2005 Racial/Ethnic Composition for Reported Graduates of Medical Assistant Programs: Los Angeles Region



Source: Integrated Postsecondary Education Data System (IPEDS)

**Summary: Medical Assistant**

The Medical Assistant workforce is one of the largest among the broader allied health workforce; it is roughly one-and-a-half times as large as the Dental Assistant workforce. It is projected to be both a fast-growing occupation, and, because of its absolute size, one that will offer

significant employment opportunity.

The Medical Assistant workforce is unique in that significant employment growth is projected to occur across all five counties in the region. Estimated wages are highest in Los Angeles and Ventura counties, but wage differences among the different counties is fairly small.

There are more than 40 Medical Assistant training programs in the Los Angeles region reporting student data, and the annual number of graduates appears to be increasing over time. Programs are mainly one year in length, resulting in a certificate and are most frequently offered by private, for-profit, less than two-year institutions. The schools reporting to IPEDS are only a subset of all those that train Medical Assistants in the Los Angeles region. However, we believe they are a representative sample of public and private, for-profit and not-for-profit, two-year and less than two-year programs.

Approximately nine out of every ten Medical Assistant program graduates are women and roughly six out of every ten graduates is Hispanic/Latino. African Americans are also overrepresented among Medical Assistant program graduates compared with their representation in the general population. The number of Native American graduates is quite small, but mirrors representation in the general population.

The largest programs (number of graduates) are:

- American Career College – Los Angeles
- Bryman College – Reseda
- Bryman College – Los Angeles
- Bryman College – Gardena
- Bryman College – Alhambra
- Bryman College – San Bernardino
- United Education Institute – Los Angeles



**PHARMACY TECHNICIAN**

**Description**

Pharmacy Technician is a registered profession in California. As of January 2004, prior experience as a Pharmacy Clerk or even as a Pharmacy Technician ceased to be an acceptable qualification for registration in the state. Registered Pharmacy Technicians must meet educational standards defined by the California State Board of Pharmacy. The scope of work for Pharmacy Technicians encompasses routine tasks meant to help prepare prescribed medication for patients, such as counting tab-

lets and labeling bottles. Those working in retail or mail-order pharmacies have varying responsibilities such as receiving written prescriptions or requests for prescription refills from patients, preparing prescriptions, which may involve mixing medications; and establishing and maintaining patient profiles, preparing insurance claims and managing inventory. In hospitals, nursing homes, and assisted-living facilities, Pharmacy Technicians have added responsibilities, including reading patients’ charts and preparing and delivering the medicine to patients.

**Employment and Wage Data**

Tables 26 and 27 display information on current employment, employment-to-population ratios, wages and expected occupational growth for Pharmacy Technicians in the Los Angeles region. Figures 13 and 14 describe the gender and racial/ethnic composition for reported graduates of Pharmacy Technician programs in the Los Angeles region during the period 2001-2005.

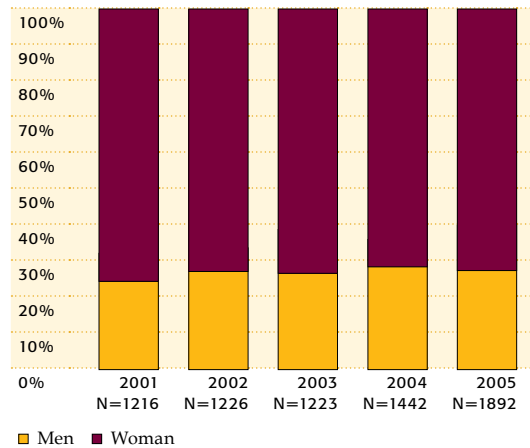
**Table 26.** 2006 Pharmacy Technician Estimated Employment, Employment per Population and Median Hourly/Annual Wage by County

County	Estimated Employment	Estimated Employment per 100,000 Population	Median Hourly	Median Annual
Los Angeles	6,170	60.4	\$ 16.18	\$ 33,654
Riverside/San Bernardino	2,310	59.3	\$ 15.30	\$ 31,824
Ventura	340	41.8	\$ 15.92	\$ 33,114
Santa Barbara	240	57.4	\$ 16.90	\$ 35,152

**Table 27.** 2004-2014 Pharmacy Technician Employment Projections/Rankings by County

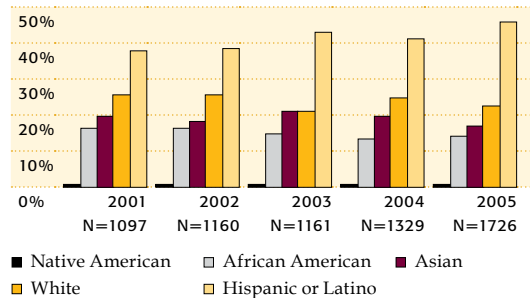
County	Fastest Growth Rank	Most New Jobs Rank	Average Number of Job Openings/Yr.
Los Angeles	Top 20%	Top 30%	208
Riverside/San Bernardino	Top 50%	Top 30%	80
Ventura	Top 10%	Top 50%	13
Santa Barbara	Bottom 25%	Top 50%	7

**Figure 13.**  
2001-2005 Gender Composition for Reported Graduates of Pharmacy Technician Programs: Los Angeles Region



Source: Integrated Postsecondary Education Data System (IPEDS)

**Figure 14.**  
2001-2005 Racial/Ethnic Composition for Reported Graduates of Pharmacy Technician Programs: Los Angeles Region



Source: Integrated Postsecondary Education Data System (IPEDS)

**Summary: Pharmacy Technician**

The Pharmacy Technician workforce is smaller in size than Dental Assistants and Medical Assistants (it is roughly equal in size to the Dental Hygienist workforce). Estimated wages are comparable across the different counties in the region and are slightly higher than both Dental Assistants and Medical Assistants. Projections indicate that employment opportunities for Pharmacy Technicians will be relatively fast-growing in both Los Angeles and Ventura counties.

Although the rate of growth in Riverside and San Bernardino counties is projected to be modest, the number of projected annual job openings ranks in the top one-third of all occupations. There will be comparatively few employment opportunities for Pharmacy Technicians in Santa Barbara County.

There are approximately 40 Pharmacy Technician training programs in the Los Angeles region reporting student data. The annual number of graduates appears to be increasing over time (though this may simply be the result of more programs reporting student data). Programs take one to two years to complete, result in a certificate, and are most frequently offered by private, for-profit, less-than-two-year institutions. The schools reporting to IPEDS are only a subset of those that train Pharmacy Technicians in the Los Angeles region. However, we believe they are a representative sample of public and private, for-profit and not-for-profit, two-year and less than two-year programs.

Approximately 75% of Pharmacy Technician program graduates are women and, as well, roughly 75% of graduates are non-White. Hispanic/Latino graduates represent the largest racial/ethnic group, but both Asian and African Americans are heavily represented as well. The number of Native American graduates is quite small, but mirrors representation in the general population (roughly 0.5% of the total).

The largest programs (number of graduates) are:

- United Education Institute – Los Angeles
- American Career College – Los Angeles
- Bryman College – Los Angeles
- Bryman College – Alhambra
- Bryman College – Torrance
- Career Colleges of America – South Gate
- North-West College – West Covina



give appropriate emergency care. When necessary, they also transport the patient.

Two wage levels are presented in the data below. This is because EMTs and Paramedics are grouped together and median wages give a misleading picture of earnings. We know that the EMT and Paramedic workforce is generally made up of two-thirds EMTs and one-third Paramedics<sup>16</sup>. EMTs undergo less training and make significantly less than do Paramedics. Thus the median wage is biased downward due to the more heavily represented EMTs. We present the wage estimate at the 90th percentile, believing that it better represents what Paramedics earn. Someone who earns a wage at the 90th percentile is earning more than 90% of other workers in that same occupation.

**EMTS AND PARAMEDICS <sup>15</sup>**

*Description*

EMTs and Paramedics provide vital care to patients under emergency conditions. Typically they are dispatched to the scene by a 911 operator and often work with police and fire department personnel. At the scene of an emergency, EMTs and Paramedics determine the nature and extent of a patient’s condition, and, following strict rules and guidelines,

*Employment and Wage Data*

Tables 28 through 30 display information on current employment, employment-to-population ratios, wages and expected occupational growth for EMTs and Paramedics in the Los Angeles region. Figures 15 and 16 describes the gender and racial/ethnic composition for reported graduates of EMT and Paramedic programs in the Los Angeles region for the years 2004 and 2005. Fewer years of data were used due to data quality issues.

**Table 28.**  
2006 EMT/Paramedic Estimated Employment and Employment per Population by County

County	Estimated Employment	Estimated Employment per 100,000 Population
Los Angeles	2,780	27.2
Riverside/San Bernardino	1,420	36.4
Ventura	N/A	N/A
Santa Barbara	N/A	N/A

<sup>15</sup> The education program completions data appears to describe paramedic programs, but likely includes some data describing EMT programs as well.

<sup>16</sup> National Highway Traffic Safety Administration. (2007). *EMS Workforce for the 21st Century: A National Assessment*. San Francisco, CA: University of California San Francisco Center for the Health Professions and University of Washington Center for Health Workforce Studies.

**Table 29.**  
2006 EMT/Paramedic Median Hourly/Annual Wage and Hourly/Annual Wage at 90th Percentile by County

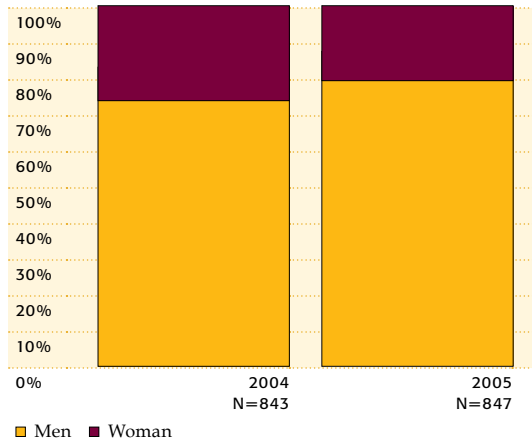
County	Median Hourly	Median Annual	90th Percentile Hourly	90th Percentile Annual
Los Angeles	\$ 11.53	\$ 23,982	\$ 21.19	\$ 44,075
Riverside/San Bernardino	\$ 12.18	\$ 23,650	\$ 19.60	\$ 40,768
Ventura	N/A	N/A	N/A	N/A
Santa Barbara	\$ 11.58	\$ 22,422	\$ 20.13	\$ 41,870

**Table 30.**  
2004-2014 EMT/Paramedic Employment Projections/Rankings by County

County	Fastest Growth Rank	Most New Jobs Rank	Average Number of Job Openings/Year
Los Angeles	Top 1%	Top 50%	123
Riverside/San Bernardino	Top 1%	Top 50%	71
Ventura	Top 25%	Bottom 25%	5
Santa Barbara	Bottom 10%	Bottom 25%	3

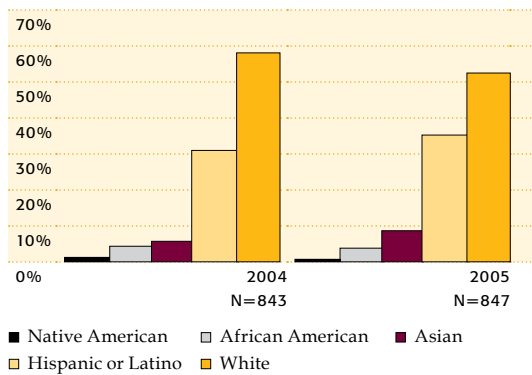


**Figure 15.**  
2004-2005 Gender Composition for Reported Graduates of EMT-Paramedic Programs: Los Angeles Region



Source: Integrated Postsecondary Education Data System (IPEDS)

**Figure 16.**  
2004-2005 Racial/Ethnic Composition for Reported Graduates of EMT-Paramedic Programs: Los Angeles Region



Source: Integrated Postsecondary Education Data System (IPEDS)

**Summary: EMT/Paramedic**

The EMT and Paramedic workforce is comparatively small in size. Employment opportunity is projected to grow rapidly in Los Angeles, Riverside and San Bernardino counties, likely the result of expected population growth. However, because the workforce is small in size, the number of job opportunities will also be comparatively small. Available data suggest that EMTs earn wages that are slightly lower than Dental Assistants and Medical Assistants; Paramedics earn considerably more.

There are many types of education training sites for EMTs and Paramedics, including ambulance services and fire departments, community colleges and private schools. The sample of programs reporting student data presented here, therefore, may not be representative. All of the institutions reporting program graduates in the database used for this report are located in the California Community College system. These schools mainly reported graduates receiving a one-year certificate. Roughly 70% of reported program graduates were men and just over half were White. The proportion of graduates for whom race/ethnicity was unreported was very high in both years that data was available. No definitive conclusions regarding the racial and ethnic composition of EMT and Paramedic graduates can be drawn.



## HOME HEALTH AIDE

### Description

Home Health Aides help elderly, convalescent, or disabled persons live in their own homes instead of in health care facilities. Under the direction of nursing or medical staff, they provide health-related services. Like nursing aides, home health aides may check a patient’s pulse rate, temperature, and respiration rate; help with simple prescribed exercises; keep rooms neat; and help patients move from bed to bathe, dress and groom. Occasionally, they change non-sterile dressings and may assist with medical equipment.

### Employment and Wage Data

Tables 31 and 32 display information on current employment, employment–to–population ratios, wages and expected occupational growth for Home Health Aides in the Los Angeles region.

**Table 31.**

2006 Home Health Aide Estimated Employment, Employment per Population and Median Hourly/Annual Wage by County

County	Estimated Employment	Estimated Employment per 100,000 Population	Median Hourly	Median Annual
Los Angeles	9,960	97.5	\$ 9.59	\$ 19,947
Riverside/San Bernardino	3,980	102.1	\$ 8.88	\$ 18,470
Ventura	1,370	168.4	\$ 9.92	\$ 20,634
Santa Barbara	1,130 <sup>†</sup>	270.3	\$ 8.95	\$ 18,616

<sup>†</sup> 2005 Estimate

**Table 32.**

2004-2014 Home Health Aide Employment Projections/Rankings by County

County	Fastest Growth Rank	Most New Jobs Rank	Average Number of Job Openings/Yr.
Los Angeles	Top 2%	Top 20%	427
Riverside/San Bernardino	Top 50%	Top 25%	118
Ventura	Top 1%	Top 15%	77
Santa Barbara	Bottom 50%	Top 50%	15

### Summary: Home Health Aide

The regional Home Health Aide workforce is roughly equal in size to the Dental Assistant workforce in Los Angeles, Riverside and San Bernardino counties, but substantially larger in both Santa Barbara and Ventura counties. County-level employment-to-population ratios indicate that Santa Barbara County has a very high concentration of Home Health Aides. Overall, it is the lowest paid occupation of any selected for analysis in this report. With the exception of Santa Barbara County, data indicate that employment opportunity will grow rapidly across the region. Additionally, because the absolute size of the workforce is relatively large, the annual number of job openings will be comparatively large.

Data describing the graduates of Home Health Aide training programs are not available. According to the Department of Health Services, there may be as many as 170 different training programs in the Los Angeles region; in the database used for this report (IPEDS), only four programs reported data for the year 2005.

Home Health Aide training programs are offered by a variety of providers. The state of California requires that Home Health Aides undergo 120 hours of training. Some students pursue a course of training that gives them dual certification as Nursing Aide/Home Health Aide. A previously certified Nursing Aide can become a certified Home Health Aide with an additional 40 hours of training. Analysis of the broad group of health care support occupations in the region indicates that this workforce is comparatively racially and ethnically

diverse; roughly 75% non-White (of which approximately 44% is Hispanic/Latino). It is likely that data describing graduates of Home Health Aide programs were it available, would mirror this composition.

The four programs reporting data in 2005 were Allan Hancock College, Long Beach City College, Palo Verde College and Marian Health Careers Center.



### CERTIFIED NURSE ASSISTANT (NURSING AIDES)

#### Description

Nursing Aides perform routine tasks under the supervision of nursing and medical staff, such as answering patients' call lights, serving meals and helping patients to eat. Nursing Aides typically also dress, bathe

and provide skin care to patients; take their temperature, pulse rate, respiration rate and blood pressure; and help them to get into and out of bed and walk. Aides observe patients' physical, mental and emotional conditions and report any change to the nursing or medical staff. Nursing Aides employed in nursing care facilities (nursing homes) often are the principal caregivers, having more contact with residents than do other members of the staff.

**Employment and Wage Data**

Tables 33 and 34 display information on current employment, employment-to-population ratios, wages and expected occupational growth for Nursing Aides in the Los Angeles region.

**Summary: Certified Nursing Assistant (Nursing Aides)**

The size of the Nursing Aide workforce varies considerably across the different counties of the Los Angeles region. In Los Angeles County it is nearly twice the size of the Medical Assistant workforce, but in the other four counties the two are roughly equal in size. Estimated wages put it near the bottom of the occupations selected for analysis in this report, slightly higher than Home Health Aides (roughly equal to what EMTs earn). Although employment opportunity for Nursing Aides is projected to grow rapidly in only Los Angeles and Ventura counties, because of the absolute size

**Table 33.** 2006 Nursing Aides Estimated Employment, Employment per Population and Median Hourly/Annual Wage by County

County	Estimated Employment	Estimated Employment per 100,000 Population	Median Hourly	Median Annual
Los Angeles	29,410	287.9	\$ 10.41	\$ 21,653
Riverside/San Bernardino	6,730	172.7	\$ 10.72	\$ 22,298
Ventura	1,480	181.9	\$ 11.86	\$ 24,669
Santa Barbara	970	232.0	\$ 12.44	\$ 25,875

**Table 34.** 2004-2014 Nursing Aides Employment Projections/Rankings by County

County	Fastest Growth Rank	Most New Jobs Rank	Average Number of Job Openings/Yr.
Los Angeles	Top 15%	Top 10%	1086
Riverside/San Bernardino	Bottom 5%	Top 20%	226
Ventura	Top 15%	Top 20%	49
Santa Barbara	Bottom 10%	Top 25%	18

of the workforce, the relative number of annual job openings will be fairly significant in all five counties. Nursing Aide training programs are offered by a variety of providers. However, data describing the demographic composition of students graduating from Nursing Aides training programs are not available. The state of California requires that Nursing Aides undergo 120 hours of training. According to the Department of Health Services, there may be as many as 325 different training programs in the Los Angeles region; in the database used for this report (IPEDS), only nine programs reported data for the year 2005. Like Home Health Aides, the racial/ethnic profile of this workforce is likely comparable to that of the broad group of health care support occupations.

The nine programs reporting data in 2005 were:

- Allan Hancock College
- Chaffey College
- Long Beach City College
- Palo Verde College
- Copper Mountain College
- Marian Health Careers Center
- Four-D College
- Baldwin Park Adult and Community Education
- Antelope Valley College



### LICENSED VOCATIONAL NURSE

#### *Description*

Licensed Vocational Nurses (LVNs) are licensed in the state by the California Board of Vocational Nursing and Psychiatric Technicians. They care for the sick, injured, convalescent and disabled under the direction of Physicians and Registered Nurses. Most LVNs provide basic bedside care, taking vital signs such as temperature, blood pressure, pulse and respiration. They also collect samples for testing, perform routine laboratory tests, feed patients and record food and fluid intake and output. Experienced LVNs may supervise Nursing Assistants/Aides. In California, they may administer prescribed medicines or start intravenous fluids. And in California, as in much of the country, LVNs make up the bulk of the nursing staff in nursing homes and long-term care facilities. They are less frequently employed in inpatient acute care settings.

**Employment and Wage Data**

Tables 35 and 36 display information on current employment, employment-to-population ratios, wages and expected occupational growth for Licensed Vocational Nurses in the

Los Angeles region. Figures 17 and 18 describe the gender and racial/ethnic composition for reported graduates of Licensed Vocational Nurse programs in the Los Angeles region during the period 2001-2005.

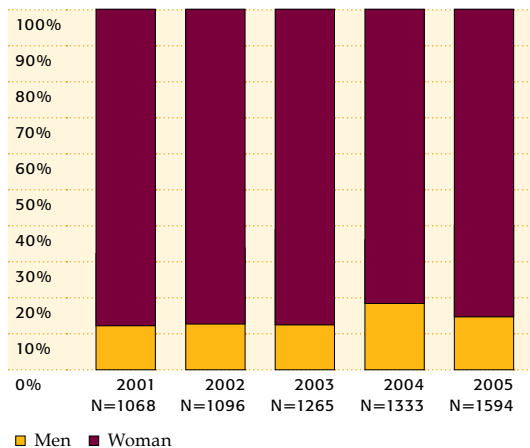
**Table 35.**  
2006 LVN Estimated Employment, Employment per Population and Median Hourly/Annual Wage by County

County	Estimated Employment	Estimated Employment per 100,000 Population	Median Hourly	Median Annual
Los Angeles	17,850	174.7	\$ 20.69	\$ 43,035
Riverside/San Bernardino	5,300	136.0	\$ 19.03	\$ 39,582
Ventura	880	108.2	\$ 20.96	\$ 43,597
Santa Barbara	430	102.9	\$ 21.52	\$ 44,762

**Table 36.**  
2004-2014 LVN Employment Projections/Rankings by County

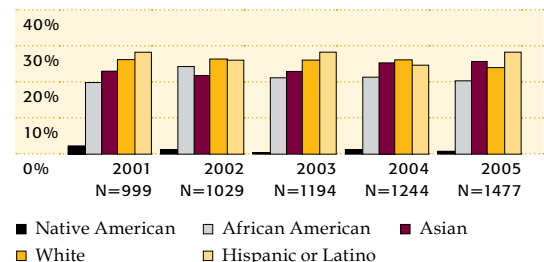
County	Fastest Growth Rank	Most New Jobs Rank	Average Number of Job Openings/Yr.
Los Angeles	Top 30%	Top 15%	606
Riverside/San Bernardino	Bottom 50%	Top 25%	169
Ventura	Bottom 50%	Top 30%	25
Santa Barbara	Bottom 10%	Top 50%	16

**Figure 17.**  
2001-2005 Gender Composition for Reported Graduates of Licensed Vocational Nursing Programs: Los Angeles Region



Source: Integrated Postsecondary Education Data System (IPEDS)

**Figure 18.**  
2001-2005 Racial/Ethnic Composition for Reported Graduates of Licensed Vocational Nursing Programs: Los Angeles Region



Source: Integrated Postsecondary Education Data System (IPEDS)

### Summary: LVN

The Licensed Vocational Nurse workforce is one of the largest among the allied health occupations selected for analysis, although its size varies considerably across the different counties in the region. Projection data indicate that this is not a fast-growing occupation, but because of its absolute size, in four of the five counties it is projected to offer substantial employment opportunity over the coming decade. As the population ages, opportunities for employment in long-term care settings will also likely increase. Estimated wages for LVNs are comparable to Paramedics; they are near to the top of the wage scale among allied health occupations.

According to the California Board of Vocational Nursing and Psychiatric Technicians there are more than 100 LVN programs in the Los Angeles region. Programs typically take one to two years to complete, resulting in a certificate. Although an associate's degree is an option, data indicate that certificates are more frequently awarded. The schools reporting to IPEDS are only a subset of all those that train medical assistants in the Los Angeles region. However, it is believed to be a representative sample of public and private, for-profit and not-for-profit, two-year and less-than-two-year programs.

Approximately eight out of every ten LVN graduates are women. The racial and ethnic composition of graduates is the most balanced of any of the allied health occupations selected for analysis. Hispanic/Latino is the largest racial/ethnic group, but represents just 28%

of the total; White, African American and Asian graduates each represent at least 20%. The proportion of Native American graduates is quite small (roughly 1% of the total) but this is somewhat greater than Native American representation in the general population.

The largest programs (number of graduates) are:

- Summit Career College – Colton
- Casa Loma College – Van Nuys
- Concorde Career College – San Bernardino
- Saint Francis Career College – Lynwood
- Concorde Career College – North Hollywood



### REGISTERED NURSE PRACTITIONER (RNP)

#### Description

Registered Nurse Practitioners are advanced practice nurses, who work independently or in collaboration with Physicians. Other advanced practice nurses include Nurse-Midwives, Clinical Nurse Specialists and Nurse Anesthetists. Nurse Practitioners provide basic preventive health care to patients and increasingly serve as

primary and specialty care providers in medically underserved areas. In California, advanced practice nurses can prescribe medications. The most common areas of specialty for Nurse Practitioners are family practice, adult practice, women's health, pediatrics, acute care and gerontology.

The Nurse Practitioner credential is a post-license certification, regulated by the California Board of Registered Nursing. Roughly 6.6% of the current California-licensed RN workforce hold the NP certification.<sup>17</sup> In 2004, a new regulation was chaptered into law establishing possession of a master's degree in nursing as a requirement for certification as a Nurse Practitioner (AB 2226)<sup>18</sup>. According to Section 2835.5 of the Nursing Practice Act<sup>19</sup>, "on and after January 1, 2008, an applicant for initial qualification or certification as a nurse practitioner" must "possess a master's degree in nursing, a master's degree in a clinical field related to nursing, or a graduate degree in nursing."

Wage data and employment projections data specifically describing Nurse Practitioners are not available. Estimates presented here describe the much broader field of Registered Nursing, which includes nurses working at all practice levels and trained at all educational levels. In addition to estimates of median hourly/annual wages, estimates of hourly/annual wages at the 90th percentile are presented. Nurse Practitio-

ners working as advanced practice nurses may earn more than an associate's degree or bachelor's degree-trained Registered Nurse depending upon place of employment. The range of estimated wages from the median to the 90th percentile likely captures the wages earned by Nurse Practitioners.

Nurse Practitioner student data used for this analysis come from the California Board of Registered Nursing Annual Schools Survey. They have two main limitations: they are available for only single year (2005), and they can't be used to describe the gender or racial/ethnic composition of students in Nurse Practitioner programs. The second best option is to use data describing graduates of Master of Science in Nursing (MSN) programs generally. Data from a 2005 census of total enrollment describe how MSN students are distributed across program concentrations, including Nurse Practitioner.

#### *Employment and Wage Data*

Tables 37 through 39 display information on current employment, employment-to-population ratios, wages and expected occupational growth for Registered Nurses in the Los Angeles region. Figures 19 through 21 describe the 2005 distribution of students enrolled in MSN programs by concentration and the 2005 gender and racial/ethnic composition for reported graduates of MSN programs in the Los Angeles region.

17 Spetz, J. et al. *Survey of Registered Nurses in California, 2006*. Center for California Health Workforce Studies and School of Nursing, University of California, San Francisco. June 2007. Conducted on behalf of the California Board of Registered Nursing.

18 <http://www.m.ca.gov/leg/leg2004.htm#AB2226>

19 <http://www.m.ca.gov/npa/npa.htm>



**Table 37.**  
2006 RN Estimated Employment and Employment per Population by County

County	Estimated Employment	Estimated Employment per 100,000 Population
Los Angeles	64,820	634.5
Riverside/San Bernardino	19,760	506.9
Ventura	4,330	532.2
Santa Barbara	1,680	401.8

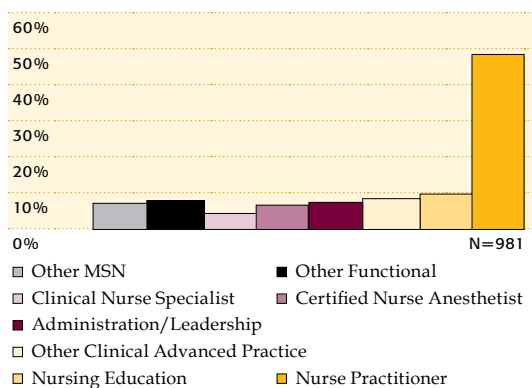
**Table 38.**  
2006 RN Hourly/Annual Wages at Median and 90th Percentile by County

County	Estimated Employment	Estimated Employment per 100,000 Population	Median Hourly	Median Annual
Los Angeles	\$ 34.42	\$ 71,590	\$ 45.82	\$ 95,306
Riverside/San Bernardino	\$ 32.77	\$ 68,170	\$ 43.12	\$ 89,690
Ventura	\$ 30.61	\$ 63,670	\$ 42.86	\$ 89,149
Santa Barbara	\$ 32.51	\$ 67,610	\$ 41.13	\$ 85,550

**Table 39.**  
2004-2014 RN Employment Projections/Rankings by County

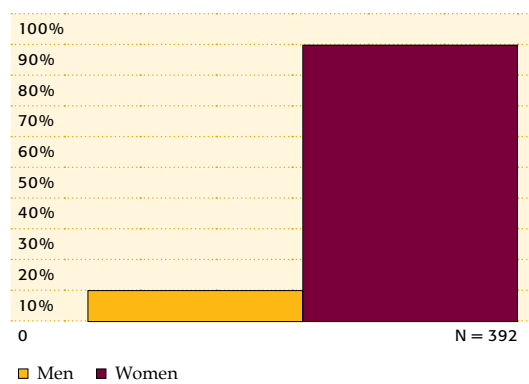
County	Fastest Growth Rank	Most New Jobs Rank	Average Number of Job Openings/Yr.
Los Angeles	Top 10%	Top 2%	3024
Riverside/San Bernardino	Top 50%	Top 5%	858
Ventura	Top 10%	Top 5%	188
Santa Barbara	Bottom 50%	Top 5%	59

**Figure 19.**  
2005 Census of Total Enrollment in Post-licensure Master of Science in Nursing Programs by Program Concentration<sup>20</sup>: Los Angeles Region



Source: California Board of Registered Nursing

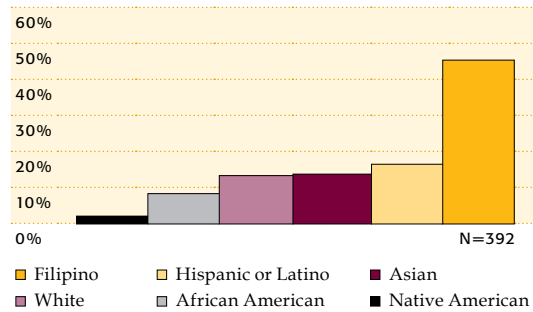
**Figure 20.**  
2005 Gender Composition of Reported Graduates of Master of Science in Nursing Programs: Los Angeles Region



Source: California Board of Registered Nursing

<sup>20</sup> MSN "tracks" that are identified in the legend but not displayed in the chart: Certified Nurse Midwife (less than 1% of the total enrollment) and, with no enrollments at the time of the 2005 Census, Case Management, Medical/Surgical, Children's Health, Gerontology and Community Health.

**Figure 21.**  
2005 Racial/Ethnic Composition of Reported  
Graduates of Master of Science in Nursing Programs:  
Los Angeles Region



Source: California Board of Registered Nursing

### Summary: Registered Nurse/Registered Nurse Practitioner

Registered Nursing (RN) is the single largest health care workforce and one of the largest in the general labor force in California. In both Los Angeles and Ventura counties, employment opportunities are projected to grow rapidly in the coming decade. Because the workforce is so large in size, the total number of annual job openings will be substantial in all five counties of the Los Angeles region. Wage data indicate that RNs in Los Angeles County earn significantly more than other counties in the region. Nurse Practitioners working as advanced practice nurses may earn more than an associate's degree- or bachelor's degree-trained Registered Nurse depending upon place of employment. The range of estimated wages from the median to the 90th percentile likely captures earnings of Nurse Practitioners. However, we are unable to draw conclusions about job demand specifically for Nurse Practitioners. One would expect continued growth in opportunities in clinical settings and via integrated primary care delivery such as that used by Kaiser Permanente.

Enrollment data from 2005 indicate that roughly 45% of all students seeking the Master of Science Nursing degree are enrolled in Nurse Practitioner programs. Graduates of MSN programs in 2005 were predominantly women (roughly 90%), but the most striking characteristic was the racial and ethnic composition. Filipinos represented just 2.5% of the region's 2005 general population, but comprised 45% of graduates of the region's MSN programs. Asian and African American graduates were represented in proportions roughly equal in size with their representation in the general population. White and Hispanic/Latino graduates formed proportions much smaller than their representation in the region's general population. Further investigation is needed to understand the factors determining the demographic composition of the region's MSN programs.

MSN programs with the greatest number of students pursuing Nurse Practitioner training at the time of the 2005 census were CSU Long Beach, CSU Los Angeles, and the University of California, Los Angeles (UCLA). MSN programs with the largest proportion of Nurse Practitioner enrollment as a share of total enrollment in 2005 were CSU Long Beach, Loma Linda, Western University of Health Sciences and UCLA. MSN programs reporting the largest proportion of Filipino graduates as a share of the total number of 2005 graduates were Western University of Health Sciences, Loma Linda University and CSU Long Beach. Overall, Nurse Practitioners are the single largest group within the broader category of advanced practice nurses. However, it's important to recognize that advanced practice nurses represent a small share of the RN workforce compared to RNs trained in associate's and bachelor's degree programs.

There are ten Master of Science in Nursing (MSN) programs in the Los Angeles region:

- Azusa Pacific University
- CSU Long Beach
- CSU Los Angeles
- CSU San Bernardino
- UCLA
- Harbor/UCLA NP program
- Mount Saint Mary’s College
- Western University of Health Sciences
- Kaiser Permanente/CSU Fullerton Nurse Anesthesia program
- Loma Linda University



## PHYSICIAN ASSISTANT

### Description

Physician Assistants (PAs) practice medicine under the supervision of Physicians. They may be the principal care providers in rural or inner city clinics, where a Physician is present for only one or two days each week. Many PAs work in primary care specialties such as general internal medicine, pediatrics and family medicine. They are formally trained to provide diagnostic, therapeutic and preventive

health care services, as delegated by a Physician. Working as members of a health care team, they take medical histories, examine and treat patients, order and interpret laboratory tests and x-rays and make diagnoses. In California, PAs are licensed to prescribe medication when authority has been delegated by the supervising Physician.

### Employment and Wage Data

Tables 40 and 41 display information on current employment, employment-to-population ratios, wages and expected occupational growth for Physician Assistants in the Los Angeles region. Figures 22 and 23 describe the gender and racial/ethnic composition for reported graduates of Physician Assistant programs in the Los Angeles region during the period 2001-2005.

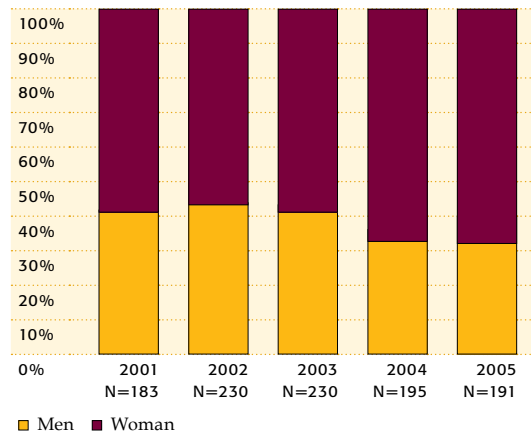
**Table 40.**  
2006 Physician Assistant Estimated Employment, Employment per Population and Median Hourly/Annual Wage by County

County	Estimated Employment	Estimated Employment per 100,000 Population	Median Hourly	Median Annual
Los Angeles	1,190	11.6	\$ 42.81	\$ 89,045
Riverside/San Bernardino	760	19.5	\$ 38.09	\$ 79,227
Ventura	70	8.6	\$ 32.87	\$ 68,370
Santa Barbara	80	19.1	\$ 36.91	\$ 76,773

**Table 41.**  
2004–2014 Physician Assistant Employment Projections/Rankings by County

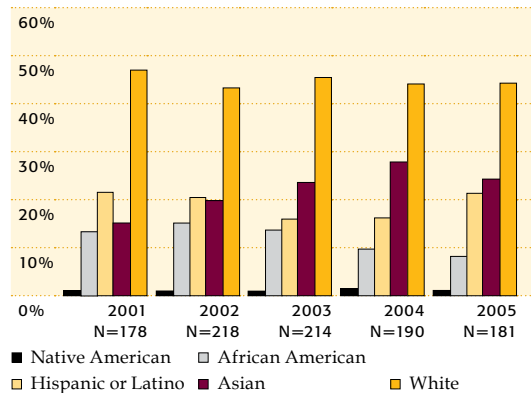
County	Fastest Growth Rank	Most New Jobs Rank	Avg. No. of Job Openings/Year
Los Angeles	Top 1%	Top 50%	81
Riverside/San Bernardino	Top 5%	Top 50%	55
Ventura	Top 1%	Bottom 25%	3
Santa Barbara	Top 30%	Bottom 25%	2

**Figure 22.**  
2001-2005 Gender Composition for Reported Graduates of Physician Assistant Programs: Los Angeles Region (All Degree Levels)



Source: Integrated Postsecondary Education Data System (IPEDS)

**Figure 23.**  
2001-2005 Racial/Ethnic Composition for Reported Graduates of Physician Assistant Programs: Los Angeles Region (All Degree Levels)



Source: Integrated Postsecondary Education Data System (IPEDS)

**Summary: Physician Assistant**

The Physician Assistant workforce is comparatively small in size and employment levels vary significantly across the different counties in the Los Angeles region. Employment opportunities are projected to grow very rapidly across the region, with the exception of Santa Barbara County. Because this workforce is so small in size, the actual, annual number of projected job openings will be very small.

Estimated wages vary substantially across the different counties. Median annual earnings for PAs working in Los Angeles County were an estimated \$10,000-\$15,000 higher than for PAs working in Riverside, San Bernardino and Santa Barbara counties, and an estimated \$20,000 higher than for those working in Ventura County.

There are five PA programs in the Los Angeles region, which vary in length and offer degrees at different levels (from an associate’s degree to a master’s degree) depending on the background and professional experience of the entering student. The region’s five programs produce roughly 200 graduates per year. Trends indicate that graduates are increasingly women, who represented approximately 57% of reported graduates in 2001 and 69% of the graduates in 2005.

Data indicate that the racial and ethnic composition of PA graduates has shifted slightly in the past five years. The number of African American graduates has been declining, while the number of Asian graduates has been increasing; proportional representation has shifted accordingly. Hispanic/Latino graduates represented roughly 22% of the total in 2001, but their numbers declined in both 2003 and 2004. In 2005 the Hispanic/Latio ratio returned to 2001 levels.

The five Physician Assistant programs in the Los Angeles region:

- Charles R. Drew University (certificate and bachelor’s program)
- Western University of Health Sciences (master’s program)
- Loma Linda (master’s program)
- USC (master’s program)
- Riverside Community College/Riverside County Regional Medical Center (certificate and associate’s degree program)



**PSYCHIATRIC TECHNICIAN**

**Description**

Psychiatric Technicians (Psych Techs) are licensed in the state by the California Board of Vocational Nursing & Psychiatric Technicians. They care for mentally impaired or emotionally disturbed individuals, following physician instructions and hospital procedures. Psych Techs monitor the physical and emotional well-being of patients. They may also participate in rehabilitation and treatment programs, help with personal hygiene and administer oral medications and hypodermic injections. Workplace settings are most often psychiatric hospitals or mental health clinics. Recently Psych Techs have been employed in large numbers in mental health correctional facilities.

**Employment and Wage Data**

Tables 42 and 43 display information on current employment, employment-to-population ratios, wages and expected occupational growth for Psychiatric

Technicians in the Los Angeles region. Figures 24 and 25 describe the gender and racial/ethnic composition for reported graduates of Psychiatric Technician programs in the Los Angeles region during the period 2001-2005.

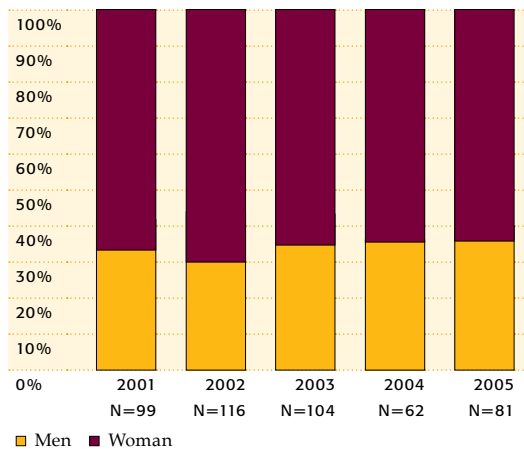
**Table 42.**  
2006 Psychiatric Technician Estimated Employment, Employment per Population and Median Hourly/Annual Wage by County

County	Estimated Employment	Estimated Employment per 100,000 Population	Median Hourly	Median Annual
Los Angeles	1,970	19.3	\$ 21.33	\$ 44,366
Riverside/San Bernardino	1,560	40.0	\$ 21.90	\$ 45,552
Ventura	N/A	N/A	N/A	N/A
Santa Barbara	N/A	N/A	N/A	N/A

**Table 43.**  
2004-2014 Psychiatric Technician Employment Projections/Rankings by County

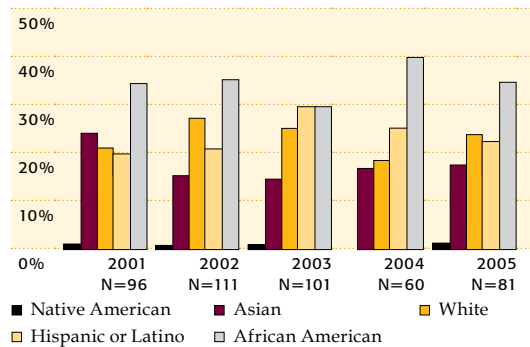
County	Fastest Growth Rank	Most New Jobs Rank	Avg. No. of Job Openings/Year
Los Angeles	Bottom 50%	Bottom 50%	46
Riverside/San Bernardino	Bottom 10%	Bottom 50%	20
Ventura	N/A	N/A	N/A
Santa Barbara	N/A	N/A	N/A

**Figure 24.**  
2001-2005 Gender Composition for Reported Graduates of Psychiatric Technician Programs: Los Angeles Region



Source: Integrated Postsecondary Education Data System (IPEDS)

**Figure 25.**  
2001-2005 Racial/Ethnic Composition for Reported  
Graduates of Psychiatric Technician Programs:  
Los Angeles Region



Source: Integrated Postsecondary Education Data System (IPEDS)

### Summary: Psychiatric Technician

The Psychiatric Technician workforce is comparatively small and employment opportunity is concentrated in Los Angeles, Riverside and San Bernardino counties. County level data for Santa Barbara and Ventura are not available, indicating that employment levels are very low in these two counties. Projection data indicate that employment opportunities for Psychiatric Technicians will be relatively few over the coming decade; this is not a fast-growing occupation. However, recent training efforts in California, including the Caregiver Training Initiative and the Nurse Workforce Initiative have trained several hundred of these professionals in other regions of the state and targeted them to work in mental health correctional facilities. Wage data illustrate that this is a comparatively well-paid occupation; annual earnings are comparable to Licensed Vocational Nurses.

There are four Psychiatric Technician programs in the Los Angeles region. Completion of a two-year program typically results in a certificate; data indicate that the associate's degree is less frequently awarded. Only two of the region's four programs report data through IPEDS and both are in the community college system. The total number of reported graduates dropped dramatically after 2003. In both 2004 and 2005, the number of graduates from the program at Mt. San Antonio College fell to one-third of its 2003 total.

The gender composition of graduates fluctuates from year to year, but on average, women represent approximately 60-65% of the total. The drop in the number of graduates occurring after 2003 affected men and women in roughly equal proportions. The most striking feature of the racial and ethnic composition of Psychiatric Technician graduates is the very large proportion of African American students (roughly 35% of the total in any given year). Excepting Native American students, the potential pool of new entrants into the Psychiatric Technician workforce is comparatively balanced in terms of race/ethnicity.

There are four programs in LA region (only two reporting student data):

- Mt. San Antonio College
- San Bernardino Valley College
- Hacienda La Puente Adult Ed (not reporting)
- California Nurses Educational Institute (not reporting)

## MASTER'S-LEVEL MENTAL HEALTH PROFESSIONALS

The data describing employment levels, employment-to-population ratios, wages and employment projections for the selected mental health occupations refer to professionals trained at the master's degree level. The occupations themselves are grouped as either counselors or social workers and are further classified according to the type and setting of service. Unfortunately, there aren't data readily available to describe graduates of master's level programs in social work or counseling by the type or the setting of mental health services that such graduates would be likely to provide. As a result, the correspondence between mental health professions labor market and educational program data is broad and indirect.

Given the lack of detailed data describing educational programs, the second best option is to look at graduates of master's level programs in general, clinical and counseling psychology and master's in social work (MSW) programs. Graduates of general psychology programs are included because many institutions do not report using the more specific categories of clinical or counseling psychology, despite offering such programs. Obviously, the education data are limited by the fact that they are overly broad in representing the targeted mental health occupations. As noted above, they do not include detail that would indicate the type of the setting of mental health services that graduates would be likely to provide. In fact, they

may overrepresent educational programs that are training potential professionals who are not likely to work in the selected mental health occupations. However, such a determination would require investigation beyond the scope of this report.



### Mental Health Counselors

#### *Description*

Mental Health Counselors work with individuals, families and groups to address and treat mental and emotional disorders and to promote optimum mental health. They are trained in a variety of therapeutic techniques used to address a wide range of issues including depression, addiction and substance abuse, suicidal impulses, stress management, problems with self-esteem, issues associated with aging, job and

career concerns, educational decisions, issues related to mental and emotional health, and family, parenting, and marital or other relationship problems. Mental Health Counselors often work closely with other mental health specialists, such as Psychiatrists, Psychologists, Clinical Social Workers, Psychiatric Nurses and School Counselors.

**Employment and Wage Data**

Tables 44 and 45 display information on current employment, employment-to-population ratios, wages and expected occupational growth for Mental Health Counselors in the Los Angeles region. Demographic data describing graduates of general, clinical and counseling Psychology programs follows Tables 46 and 47 (which describe information on Substance Abuse/Behavioral Disorder Counselors).

**Substance Abuse/Behavioral Disorder Counselors**

**Description**

Substance Abuse/Behavioral Disorder Counselors assist people who suffer from problems related to alcohol, drugs, gambling and eating disorders. They counsel individuals facing addiction, helping them to identify underlying related behaviors, and they conduct programs aimed at preventing addiction from occurring in the first place. Counseling sessions are designed for individuals, families, or groups.

**Employment and Wage Data**

Tables 46 and 47 display information on current employment, employment-to-population ratios, wages and expected occupational growth for Substance Abuse/Behavioral Disorder Counselors in the Los Angeles region.

**Table 44.**

*Mental Health Counselors Estimated Employment, Employment per Population and Median Hourly/Annual Wage by County*

County	Estimated Employment	Estimated Employment per 100,000 Population	Median Hourly	Median Annual
Los Angeles	3,330	32.6	\$ 15.05	\$ 31,304
Riverside/San Bernardino	1,260	32.3	\$ 16.85	\$ 35,048
Ventura	110 <sup>†</sup>	13.5	\$ 13.23	\$ 27,518
Santa Barbara	N/A	N/A	\$ 16.87	\$ 35,090

<sup>†</sup> 2005 Estimate

**Table 45.**

*2004-2014 Mental Health Counselors Employment Projections/Rankings by County*

County	Fastest Growth Rank	Most New Jobs Rank	Avg. No. of Job Openings/Year
Los Angeles	Top 15%	Top 50%	144
Riverside/San Bernardino	Top 50%	Top 50%	61
Ventura	Bottom 50%	Bottom 50%	4
Santa Barbara	Bottom 50%	Bottom 25%	3



**Table 46.**

2006 Substance Abuse/Behavioral Disorder Counselor Estimated Employment, Employment per Population and Median Hourly/Annual Wage by County

County	Estimated Employment	Estimated Employment per 100,000 Population	Median Hourly	Median Annual
Los Angeles	2,460	24.1	\$ 13.59	\$ 28,267
Riverside/San Bernardino	950	24.4	\$ 14.39	\$ 29,931
Ventura	140	17.2	\$ 16.66	\$ 34,653
Santa Barbara	140	33.5	\$ 17.02	\$ 35,402

**Table 47.**

2004-2014 Employment Projections/Rankings by County

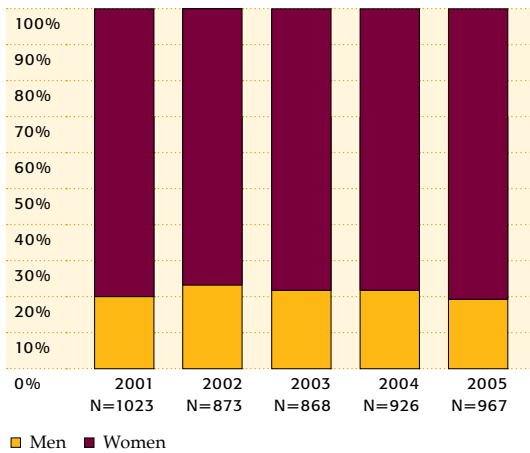
County	Fastest Growth Rank	Most New Jobs Rank	Avg. No. of Job Openings/Year
Los Angeles	Top 35%	Top 50%	97
Riverside/San Bernardino	Bottom 50%	Top 50%	42
Ventura	Top 20%	Bottom 25%	5
Santa Barbara	Bottom 50%	Bottom 25%	3

Figures 26 and 27 describe the gender and racial/ethnic composition for reported graduates of master’s programs in general, clinical and counseling psychology in the Los Angeles region

during the period 2001-2005. This data is being used to describe both Mental Health Counselors and Substance Abuse/Behavioral Disorder Counselors.

**Figure 26.**

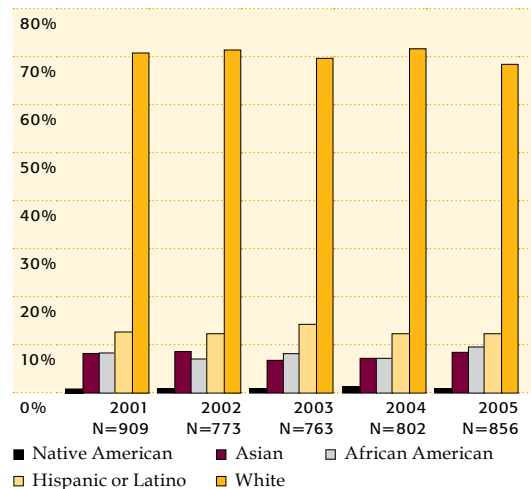
2001-2005 Gender Composition for Reported Graduates of Master’s Programs in General, Clinical or Counseling Psychology: Los Angeles Region



Source: Integrated Postsecondary Education Data System (IPEDS)

**Figure 27.**

2001-2005 Racial/Ethnic Composition for Reported Graduates of Master’s Programs in General, Clinical or Counseling Psychology: Los Angeles Region



Source: Integrated Postsecondary Education Data System (IPEDS)

### **Summary: Mental Health Counselors and Substance Abuse/Behavioral Disorder Counselors**

Both the Mental Health Counselor workforce and Substance Abuse/Behavioral Disorder Counselor workforce are comparatively small in size. Data describing the employment outlook for Mental Health Counselors indicates that employment is expected to grow relatively rapidly in Los Angeles County, but not in the other four counties that make up the Los Angeles region. In fact, in both Santa Barbara and Ventura counties employment projections data suggest that only a handful of job openings will occur each year. Median wages vary across the region. The data indicate that those working in either the Inland Empire (Riverside/San Bernardino counties) or Santa Barbara County earn more than those working in Los Angeles or Ventura counties.

Labor market data describing Substance Abuse/Behavioral Disorder Counselors present a similar picture. This is a small workforce and job openings over the coming decade will be relatively few. Employment-per-population ratios at the county level suggest that employment for Substance Abuse/Behavioral Disorder Counselors is considerably more concentrated in Santa Barbara County than the rest of the region. Estimated median wages are comparatively higher in both Santa Barbara and Ventura counties.

There are somewhere between 25 and 30 master's level programs in general, clinical, and counseling psychology in the Los Angeles region. The number of graduates

that these programs produce fluctuates from year to year; the five-year average from 2001-2005 is roughly 800 annually. Approximately 80% of these graduates are women and roughly 70% are White. Over the past five years, the racial and ethnic composition has been distributed consistently; there do not appear to be any shifting trends.



### **Mental Health/Substance Abuse Social Worker**

#### *Description*

Mental Health/Substance Abuse Social Workers, also known as Clinical Social Workers, are a subset of the profession generally known as “social workers.” These professionals focus on assessing and treating individuals with mental illness or substance abuse problems, including abuse of alcohol, tobacco, or other drugs. Such services include individual and group therapy, outreach, crisis intervention, social rehabilitation and training in skills of everyday living. Mental Health/Substance Abuse Social Workers may also help plan for supportive services to ease patients’ return to the community. Mental Health/Substance Abuse Social Workers are likely to work in hospitals, substance abuse treatment centers, individual and family services agencies, or in local government.

**Employment and Wage Data**

Tables 48 and 49 display information on current employment, employment-to-population ratios, wages and expected occupational growth for Mental Health/

Substance Abuse Social Workers in the Los Angeles region. Figures 28 and 29 describe the gender and racial/ethnic composition for reported graduates of Master’s in Social Work programs in the Los Angeles region during the period 2001-2005.

**Table 48.**  
2006 Mental Health/Substance Abuse Social Worker Estimated Employment, Employment per Population and Median Hourly/Annual Wage by County

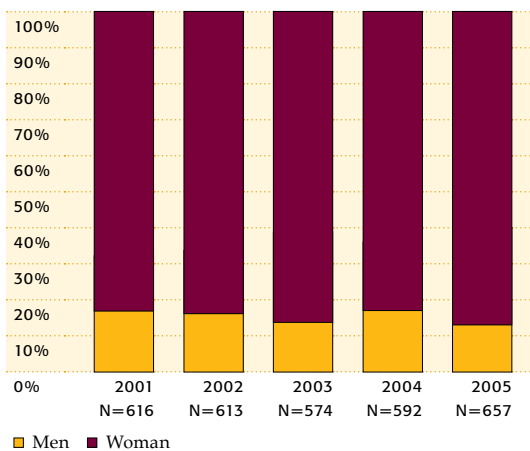
County	Estimated Employment	Estimated Employment per 100,000 Population	Median Hourly	Median Annual
Los Angeles	2,330	22.8	\$ 16.90	\$ 35,152
Riverside/San Bernardino	760	19.5	\$ 17.21	\$ 35,797
Ventura	360†	44.2	\$ 19.24	\$ 40,019
Santa Barbara	330†	78.9	\$ 20.27	\$ 42,162

† 2005 Estimate

**Table 49.**  
2004-2014 Mental Health/Substance Abuse Social Worker Employment Projections/Rankings by County

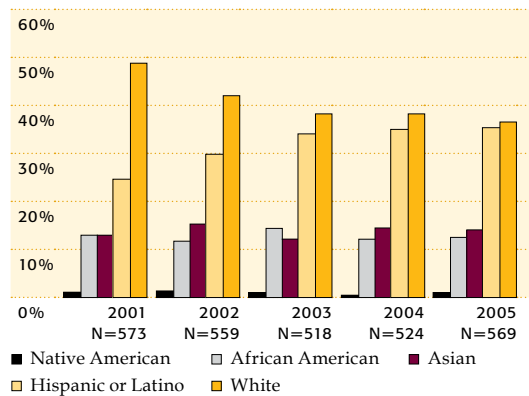
County	Fastest Growth Rank	Most New Jobs Rank	Avg. No. of Job Openings/Year
Los Angeles	Top 25%	Top 50%	84
Riverside/San Bernardino	Bottom 50%	Bottom 50%	22
Ventura	Top 50%	Top 50%	8
Santa Barbara	Bottom 50%	Bottom 25%	2

**Figure 28.**  
2001-2005 Gender Composition for Reported Graduates of Master’s in Social Work Programs: Los Angeles Region



Source: Integrated Postsecondary Education Data System (IPEDS)

**Figure 29.**  
2001-2005 Racial/Ethnic Composition for Reported Graduates of Master’s in Social Work Programs: Los Angeles Region



Source: Integrated Postsecondary Education Data System (IPEDS)

### Summary: Mental Health/ Substance Abuse Social Worker

The Clinical Social Work workforce in Los Angeles and Riverside/San Bernardino counties is roughly equal in size to that of the Substance Abuse/Behavioral Disorder Counselor workforce. The level of employment for Clinical Social Workers relative to the population in both Santa Barbara and Ventura counties indicates a much higher level of employment concentration; the Clinical Social Work workforce is roughly twice as concentrated in Ventura County and nearly four times as concentrated in Santa Barbara County than Los Angeles County and the Inland Empire. However, employment opportunity is neither projected to grow rapidly, nor is it expected that there will be many job openings for Clinical Social Workers over the coming decade. Median wages are comparatively higher in both Santa Barbara and Ventura counties.

There are six master's level social work education programs in the Los Angeles region<sup>21</sup>, which over the past five years have produced roughly 600-650 graduates annually. Women represent approximately 85% of the annual number of MSW graduates. The racial/ethnic composition of MSW graduates is changing. In recent years the number of Hispanic/Latino women graduates has been increasing, while the number of White women graduates has been declining, causing a shift in proportional representation. In 2001 Hispanic/Latino graduates formed just 25% of the total number of MSW graduates, growing to 35% in 2005 making cohorts of White and Hispanic/Latino roughly equal in size.

The six fully accredited MSW programs in the region are:

- CSU San Bernardino
- CSU Long Beach
- CSU Los Angeles
- UCLA
- Loma Linda
- USC



### GERIATRIC SOCIAL WORKER

Part of the workforce that will play a critical role over the coming decade are social workers specializing in the field of geriatrics and aging. Unfortunately, data describing these professionals in California is very limited. There is limited education data describing graduates of gerontology programs, which is presented below (Education data describing MSW graduates is presented in the previous section). On the labor market side, there is no good way to distinguish between these professionals. We were able to find only one report<sup>22</sup>, which is national in scope; it reports that roughly 9% of licensed social workers practice in the area of geriatrics or aging.

Although quantitative information describing the state of geriatric social work education is largely unavailable, we did find information describing an effort to promote expertise in geriatrics and aging in social work at both the baccalaureate and master's level, sponsored by the Council on Social Work Education.

21 CSU Dominguez Hills recently established an MSW program and is in the initial stage of being accredited by the Council of Social Work Education.

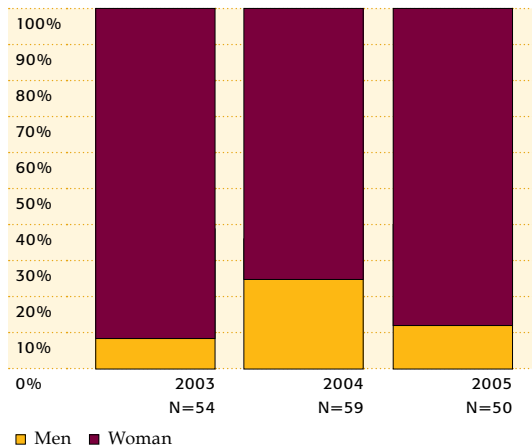
22 *Licensed Social Workers in the U.S., 2004*. Center for Health Workforce Studies, School of Public Health, University of Albany.

The Geriatric Social Work Initiative<sup>23</sup> is a multi-faceted program meant to prepare an aging-savvy social work workforce. Although its mission includes educational preparation at the baccalaureate level, it appears that most of the programmatic work, to date, is aimed at the master’s level and higher.

One of the featured components is a practicum partnership, in which schools of social work and community agencies partner to provide practicum experiences for MSW students who concentrate on aging issues. There are six model programs nationally, one of which is based in the Los Angeles area (another is based in the San Francisco Bay Area). The Geriatric Social Work Education Consortia of Southern California is sponsored by Partners in Care Foundation: UCLA, USC, CSU Long Beach and CSU Los Angeles.

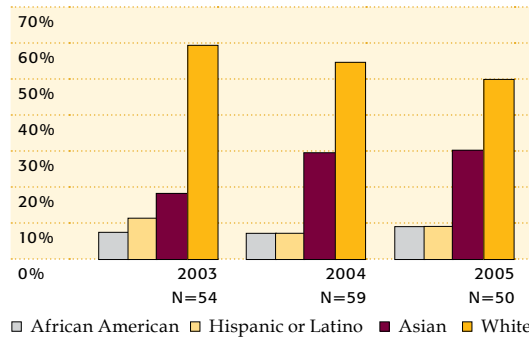
Figures 30 and 31 describe the gender racial/ethnic composition for reported graduates of Gerontology programs in the Los Angeles region during the period 2003-2005.

**Figure 30.**  
2003-2005 Gender Composition for Reported Graduates of Gerontology Programs: Los Angeles Region (All Degree Levels)



Source: Integrated Postsecondary Education Data System (IPEDS)

**Figure 31.**  
2003-2005 Racial/Ethnic Composition for Reported Graduates of Gerontology Programs: Los Angeles Region (All Degree Levels)



Source: Integrated Postsecondary Education Data System (IPEDS)

**Summary: Gerontology Education**

There are three Gerontology education programs in the Los Angeles region reporting student data<sup>24</sup>: USC, CSU Long Beach and the University of La Verne. USC offers both bachelor’s and master’s level education; programs at CSU Long Beach and the University of La Verne are master’s level only. Overall, the number of reported graduates is very small; roughly 70-80% of these graduates are from the programs at USC. Approximately 80-90% of reported graduates are women and roughly half are White. With only three years of student data, and with the certainty that this data is incomplete, it isn’t possible to draw any definitive conclusions regarding the racial and ethnic composition of students graduating from the region’s Gerontology programs.

**Note on aging-related education:**

In addition to the small number of gerontology programs, our research found that a handful of community colleges reported 3-5 graduates per year from programs in Adult Development & Aging:

- Chaffey College
- Long Beach City College
- Los Angeles Mission College
- Mt. San Jacinto College

23 More information on this program can be found at <http://www.gswi.org/>

24 CSU San Bernardino offers a program in Community Health Education and Promotion at both the bachelor’s and master’s level. No student data are reported.

**PUBLIC/COMMUNITY HEALTH**

In the section describing mental health professionals, we noted the difficulty in matching labor market data with education program data. This same difficulty pertains to the public/community health occupations targeted for analysis. Again, this means that we are able to only very broadly describe labor market conditions and educational training programs for the selected public/community health occupations.

As a result, we’ve organized the targeted occupations around the available education data: public health education and promotion programs at the bachelor’s, master’s and doctoral level, and general public health programs at the bachelor’s and master’s level. Obviously, the education data are limited by the fact that they are overly broad in representing the variety of public/community health occupations. They do not include detail that would help indicate the type or setting of public/community health services that graduates would be likely to provide.

**Public/Community Health Educator**

*Description*

Public/Community Health Educators are bachelor’s and master’s-level trained professionals who work to promote, maintain and improve individual and community health by assisting individuals and communities to adopt healthy behaviors. They collect and analyze data to identify community needs prior to planning, implementing, monitoring and evaluating programs designed to encourage healthy lifestyles, policies and environments. They may also serve as a resource to assist individuals, other professionals, or the community, and may administer fiscal resources for health education programs.

*Employment and Wage Data*

Tables 50 and 51 display information on current employment, employment-to-population ratios, wages and expected occupational growth for Public/Community Health Educators in the Los Angeles region. Figures 32 and 33 describe the gender and racial/ethnic composition for reported graduates of Public/Community Health Educator programs in the Los Angeles region during the period 2001-2005.

**Table 50.**

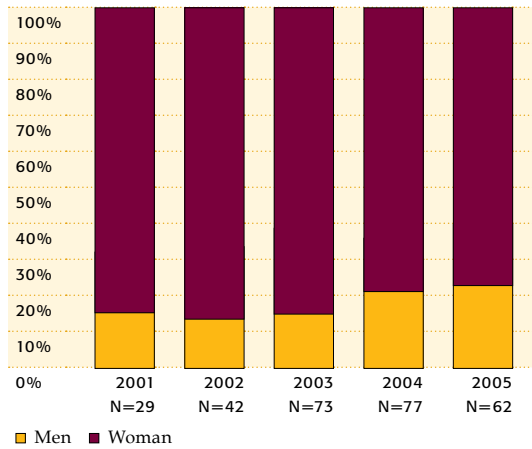
*2006 Public/Community Health Educator Estimated Employment, Employment per Population and Median Hourly/Annual Wage by County*

County	Estimated Employment	Estimated Employment per 100,000 Population	Median Hourly	Median Annual
Los Angeles	2500	24.5	\$ 16.37	\$ 34,050
Riverside/San Bernardino	N/A	N/A	\$ 17.41	\$ 36,213
Ventura	80	9.8	\$ 19.37	\$ 40,290
Santa Barbara	110	26.3	\$ 16.11	\$ 33,509

**Table 51.**  
2004-2014 Public/Community Health Educator Employment Projections/Rankings by County

County	Fastest Growth Rank	Most New Jobs Rank	Avg. No. of Job Openings/Year
Los Angeles	Top 15%	Top 50%	82
Riverside/San Bernardino	Bottom 50%	Bottom 50%	15
Ventura	Top 15%	Bottom 25%	4
Santa Barbara	N/A	N/A	N/A

**Figure 32.**  
2001-2005 Gender Composition for Reported Graduates of Public Health Education and Promotion Programs: Los Angeles Region (All Degree Levels)

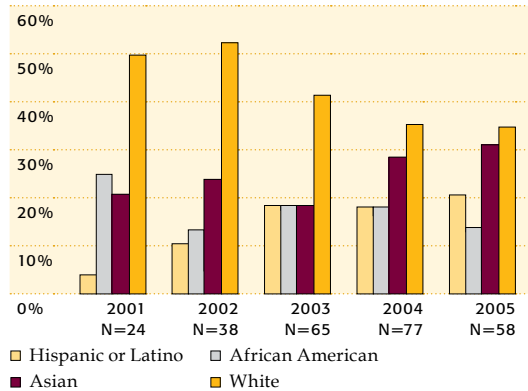


Source: Integrated Postsecondary Education Data System (IPEDS)

**Summary: Public Health Educator**

The Public Health Educator workforce is small, comparable in size to the other mental health and social services occupations analyzed in this report. Employment in this occupation is concentrated in Los Angeles and Santa Barbara counties; data describing the level of employment in the Inland Empire was not available. Estimated wages are higher in Ventura County, but the difference compared to other counties is not large.

**Figure 33.**  
2001-2005 Racial/Ethnic Composition for Reported Graduates of Public Health Education and Promotion Programs: Los Angeles Region (All Degree Levels)



Source: Integrated Postsecondary Education Data System (IPEDS)

Employment projection data indicate that job opportunities will grow most rapidly in Los Angeles County, but because of the very small size of this workforce the actual number of job openings is expected to be small. It is anticipated that only a handful of job openings will occur each year in Ventura and Santa Barbara counties.

There are only two programs in the Los Angeles region reporting student data<sup>25</sup> that describe Public/Community Health Education:

<sup>25</sup> CSU San Bernardino offers a program in Community Health Education and Promotion at both the bachelor's and master's level. No student data are reported.

USC and Loma Linda University. USC graduates roughly 45-60 undergraduates and another five PhDs per year. Loma Linda awards roughly 10-15 masters and doctoral degrees per year. At both levels, graduates are predominantly women (roughly 80% of the total). The first year in which undergraduate degrees in Public Health Education were reported by USC was 2003. In the years since, the racial/ethnic composition has shifted due to the increasing number of Asian graduates. This increase is seen in the shifting proportional representation illustrated in Figure 33.

Analysis of the racial/ethnic composition of these programs is problematic. There are so few graduates in any given year that very small changes in the total number of graduates from any one racial/ethnic group can have a dramatic affect on the racial and ethnic composition. Data describing general programs Public Health at the bachelor's and master's level, which is presented in the following section, better illustrates racial and ethnic diversity in the region's formally trained public health education program graduates.



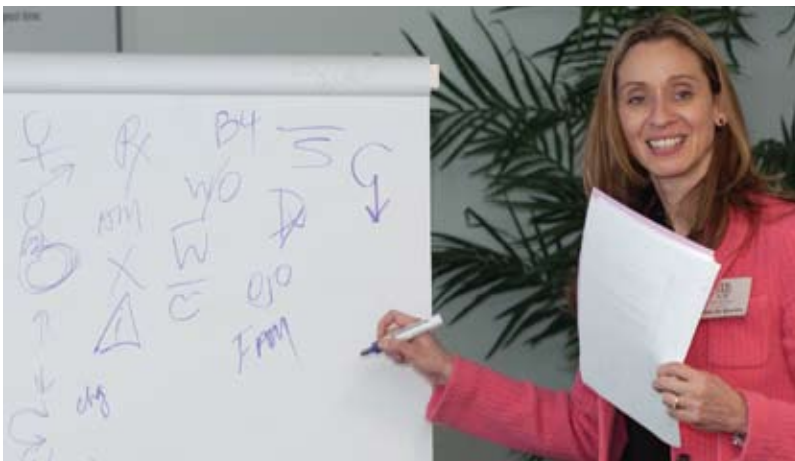
## Medical and Public Health Social Worker

### *Description*

Medical and Public Health Social Workers are typically trained at the bachelor's and master's degree levels. They work to provide individuals, families, or vulnerable populations with the psychosocial support needed to cope with chronic, acute, or terminal illnesses, such as Alzheimer's disease, cancer, or AIDS. They also advise family caregivers, counsel patients and help plan for patients' needs after discharge by arranging for at-home services, from meals-on-wheels to oxygen equipment. Some work on interdisciplinary teams that evaluate certain kinds of patients, such as geriatric or organ transplant patients. Medical and Public Health Social Workers may work for hospitals, nursing and personal care facilities, individual and family services agencies, or local governments. This unique group of workers may be trained in either social work or public health.

### *Employment and Wage Data*

Tables 52 and 53 display information on current employment, employment-to-population ratios, wages and expected occupational growth for Medical and Public Health Social Workers in the Los Angeles





region. Figures 34 through 38 describe the gender and racial/ethnic composition for reported graduates of Public Health programs at the bachelors and masters level in the Los Angeles region during the period 2001-2005. These professionals may also be

formally trained in Social Work programs. Master’s level social work education data was presented previously in the report; data describing graduates of the region’s bachelor’s level social work programs is presented near the end of this report.

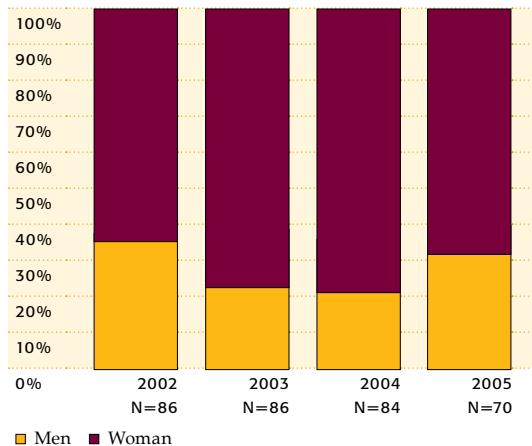
**Table 52.**  
2006 Medical and Public Health Social Worker Estimated Employment, Employment per Population and Median Hourly/Annual Wage by County

County	Estimated Employment	Estimated Employment per 100,000 Population	Median Hourly	Median Annual
Los Angeles	2,420	23.7	\$ 24.10	\$ 50,128
Riverside/San Bernardino	920	23.6	\$ 25.93	\$ 53,934
Ventura	80	9.8	\$ 29.33	\$ 61,006
Santa Barbara	80	19.1	\$ 29.93	\$ 62,254

**Table 53.**  
2004-2014 Medical and Public Health Social Worker Employment Projections/Rankings by County

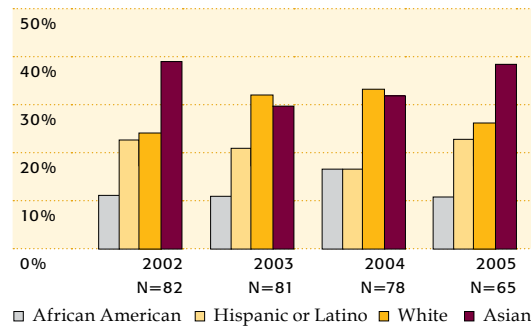
County	Fastest Growth Rank	Most New Jobs Rank	Avg. No. of Job Openings/Year
Los Angeles	Top 25%	Top 50%	105
Riverside/San Bernardino	Bottom 50%	Bottom 50%	26
Ventura	Top 15%	Bottom 10%	2
Santa Barbara	N/A	N/A	N/A

**Figure 34.**  
2001-2005 Gender Composition for Reported Graduates of Bachelor’s in Public Health Programs: Los Angeles Region



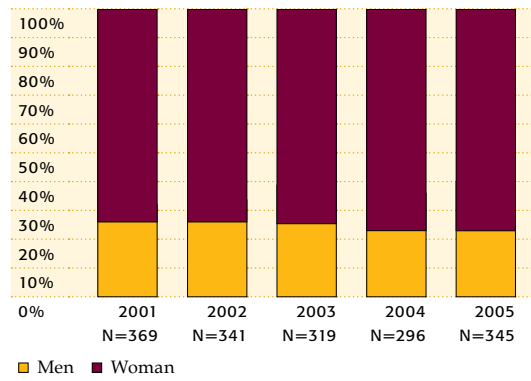
Source: Integrated Postsecondary Education Data System (IPEDS)

**Figure 35.**  
2001-2005 Racial/Ethnic Composition for Reported Graduates of Bachelor’s in Public Health Programs: Los Angeles Region



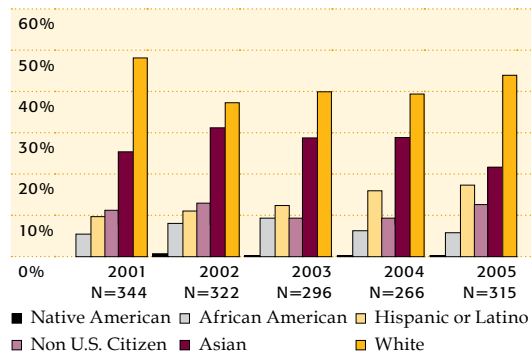
Source: Integrated Postsecondary Education Data System (IPEDS)

**Figure 36.**  
2001-2005 Gender Composition for Reported  
Graduates of Master's in Public Health Programs:  
Los Angeles Region



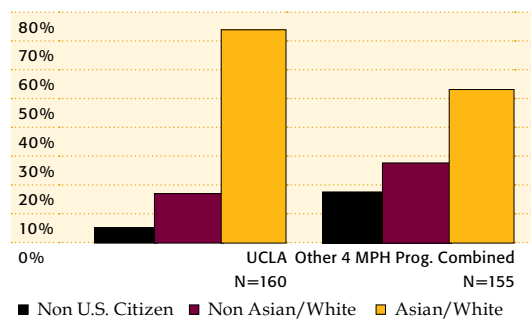
Source: Integrated Postsecondary Education Data System (IPEDS)

**Figure 37.**  
2001-2005 Racial/Ethnic Composition for Reported  
Graduates of Master's in Public Health Programs:  
Los Angeles Region



Source: Integrated Postsecondary Education Data System (IPEDS)

**Figure 38.**  
Racial/Ethnic Composition of Reported Graduates of  
Master's in Public Health Programs by Institution:  
Los Angeles Region



Source: Integrated Postsecondary Education Data System (IPEDS)

### Summary: Medical/Public Health Social Workers

The regional Medical/Public Health Social Worker workforce is small in size, comparable to the respective workforces of other public/community health, mental health and social services occupations already presented in this report. Employment-per-population ratios indicate that the workforce is considerably more concentrated in Los Angeles, Riverside, San Bernardino and Santa Barbara counties than in Ventura County. However, estimated wages are substantially higher in Ventura and Santa Barbara counties compared to the rest of the region. Projection data describe a situation where job opportunities are not growing rapidly nor much in number. Although there is no data describing the occupational outlook in Ventura County, it is likely that in both Santa Barbara and Ventura counties, over the coming decade, there will be no more than a handful of new job openings each year.

At the bachelors level there are three programs reporting student data describing public health graduates: USC, Loma Linda University and CSU Northridge. On average, women represent approximately 70% of the total number of graduates. Asians represent the largest racial/ethnic group (roughly 35% of the graduates in a given year); in combination, White and Asian graduates represent approximately 65% of graduates. Evaluated in terms of representation in the general population, only the group of Hispanic/Latino graduates would be considered underrepresented.

The three schools that offer bachelor's programs in public health also offer a master's degree in public health. An additional two programs (UCLA and CSU Long Beach) offer only a master's degree in public health, for a total of five master's degree programs in the region. The gender composition of master's level programs in public health is comparable with bachelor's level programs; roughly 70% of graduates are women. The racial/ethnic composition shows some differences. Overall, Hispanic/Latino and African American graduates are represented in greater numbers among bachelor's level programs.

Programs at the master's level can be usefully reorganized to show important differences between the student body at UCLA and the region's other four MPH programs. UCLA produces roughly half of all those graduating with the MPH degree in the Los Angeles region, and its student body differs from the other MPH programs in important ways. In 2005, reported data indicate that the concentration of Asian and White students at UCLA was considerably greater than other MPH programs in the region. In addition, non-U.S. citizens are represented in far greater number in the region's other four MPH programs. UCLA is one of two major schools of public health in California (the other being UC Berkeley) and admission to the program is considered highly competitive.

### **Community Health Worker and Health Care Interpreter**

Community Health Workers are not identified by available labor market data. This is an emerging occupation and the job tasks and responsibilities vary depending on the workplace setting. Responsibilities may include educating clients about available community resources; assisting clients in obtaining transportation, childcare or other support when necessary; acting as a client advocate and in the support of developing problem solving skills; providing instruction in basic health care procedures, and providing feedback relevant to improve service accessibility.

Health Care Interpreters are not identified by the available labor market data, either. This is an emerging occupation and the job tasks and responsibilities vary depending on the workplace setting. Generally, the role of the Health Care Interpreter is to serve as a conduit of information between medical staff and non-English speaking patients. Specific responsibilities may include ensuring that information pertaining to the patient's outpatient services and/or hospitalization is accurately communicated, seeing that patient's questions and concerns regarding this information are appropriately addressed and documented, and providing interpretive services that conveying the exact message (as opposed to summarizing the information in a way that is subjective).

There are no student data reported for either Community Health Worker or Health Care Interpreter education programs. There are at least four programs in the California Community College system offering a community health

worker certificate (none in the Los Angeles region); CSU Los Angeles and CSU Dominguez Hills offer a community health option as part of their bachelor’s in health sciences degree programs.

According to the California Healthcare Interpreting Association (CHIA) there are multiple Health Care Interpreter training sites in the Los Angeles region:

- CSU Long Beach
- CSU Los Angeles
- Riverside Community College
- CSU Northridge
- UC Riverside Extension
- Santa Barbara City College
- Mt. San Antonio College
- UCLA Extension (West LA)
- PALS for Health
- Southern California School of Interpretation
- LA Care Health Plan

## SOCIAL AND HUMAN SERVICE ASSISTANTS

### Description

This is a broad category of occupations, but very likely includes critical segments of the allied health workforce. Social and Human Service Assistants are entry-level, paraprofessionals who work in a range of settings, from community and human and social service-based nonprofit organizations to private industry to government agencies. Occupations in this group work in a variety of community and social service fields, including geriatric care and mental health and substance abuse counseling.

### Employment and Wage Data

Tables 54 and 55 display information on current employment, employment-to-population ratios, wages and expected occupational growth for Social and Human Service Assistants in the Los Angeles region.

**Table 54.**

2006 Social and Human Service Assistants Estimated Employment, Employment per Population and Median Hourly/Annual Wage by County

County	Estimated Employment	Estimated Employment per 100,000 Population	Median Hourly	Median Annual
Los Angeles	6,640	64.9	\$ 13.96	\$ 29,037
Riverside/San Bernardino	2,000	51.3	\$ 12.44	\$ 25,875
Ventura	370	45.5	\$ 15.39	\$ 32,011
Santa Barbara	500	119.6	\$ 15.85	\$ 32,968

**Table 55.**

2004-2014 Social and Human Service Assistants Employment Projections/Rankings by County

County	Fastest Growth Rank	Most New Jobs Rank	Avg. No. of Job Openings/Year
Los Angeles	Top 10%	Top 25%	294
Riverside/San Bernardino	Top 25%	Top 30%	75
Ventura	Top 25%	Top 50%	10
Santa Barbara	Top 25%	Top 25%	17

### Education Data

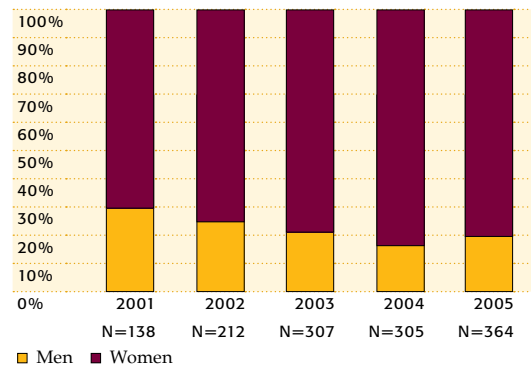
We selected education program data describing graduates of Human Services programs and Substance Abuse/Addiction Counselor programs at the associate’s degree level, and Social Work programs at the baccalaureate level. These programs were selected because they are producing graduates that go to work as entry-level paraprofessionals in fields that would be considered allied health, and because student data are available. There are also other education programs that are training entry-level paraprofessionals to work in social service fields of allied health. For example, the California Community College system offers programs that train entry-level, community-based mental health workers. However, there were no student data available to describe graduates of these programs.

### Human Services Education

What follows is a sample description from the Human Services Program at Allan Hancock College (Ventura County):  
*“The Human Services Program prepares students for entry level employment positions in the social services, mental health, and addictions treatment fields and also provides opportunities for individuals who are already employed to upgrade their knowledge and skills. Program graduates work in a number of varied settings including alcoholism and drug addiction treatment, family services, parent education, social service and case management programs, youth shelters, domestic abuse programs, community health care, and juvenile corrections, to name a few.”*

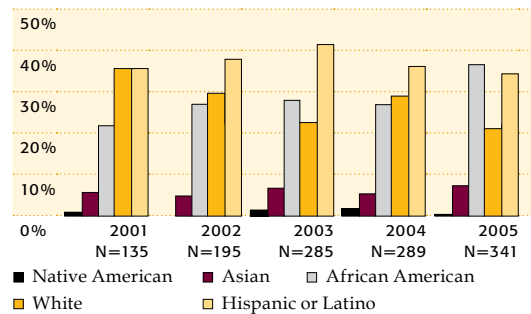
Figures 39 and 40 describe the gender and racial/ethnic composition for reported graduates of Human Service programs in the Los Angeles region during the period 2001-2005.

**Figure 39.**  
 2001-2005 Gender Composition for Reported Graduates of Human Service Programs: Los Angeles Region



Source: Integrated Postsecondary Education Data System (IPEDS)

**Figure 40.**  
 2001-2005 Racial/Ethnic Composition for Reported Graduates of Human Service Programs: Los Angeles Region



Source: Integrated Postsecondary Education Data System (IPEDS)

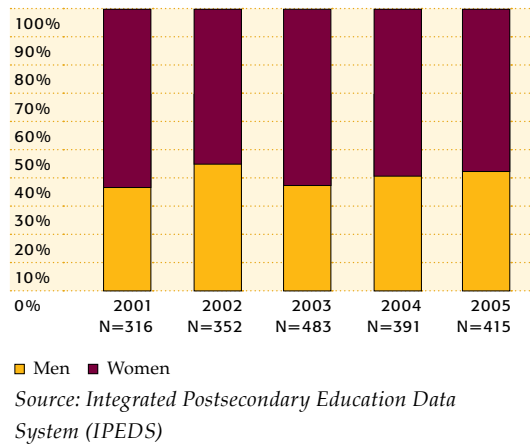
### Substance Abuse/Addiction Counseling Education

These are typically associate degree and certificate programs meant to train entry-level mental health and social service paraprofessionals. Almost all of these programs are offered in the community college system and are accredited by

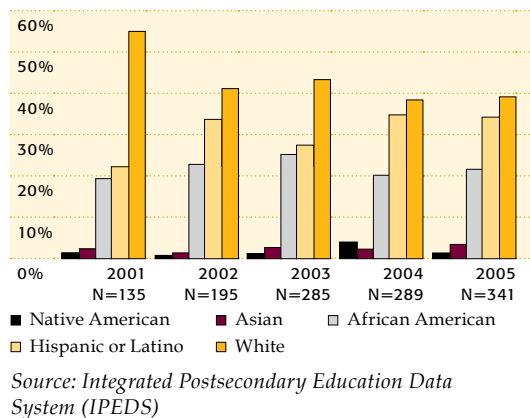
the California Association of Drug and Alcohol Educators. Completion of an accredited program can lead to certification as a counselor through examinations sponsored by the California Association of Alcoholism and Drug Abuse Counselors.

Figures 41 and 42 describe the gender and racial/ethnic composition for reported graduates of Substance Abuse/Counseling Addiction programs in the Los Angeles region during the period 2001-2005.

**Figure 41.**  
2001-2005 Gender Composition for Reported Graduates of Substance Abuse/Addiction Counseling Programs: Los Angeles Region



**Figure 42.**  
2001-2005 Racial/Ethnic Composition for Reported Graduates of Substance Abuse/Addiction Counseling Programs: Los Angeles Region

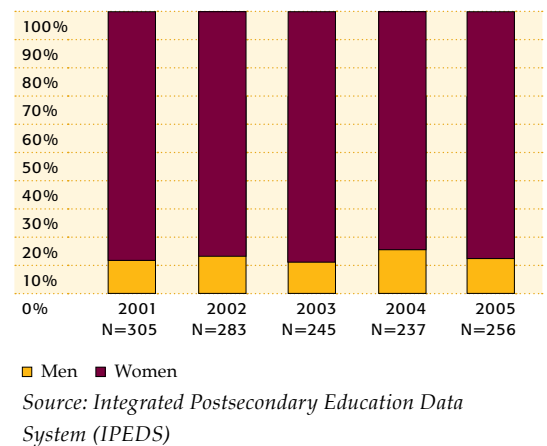


### Social Work Education (Bachelor's level)

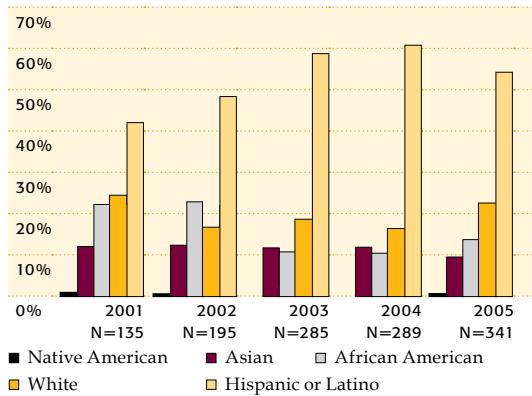
Social work programs at the undergraduate level prepare entry-level professionals for generalist social work practice. These programs are an important source of community health and social service professionals that work with diverse groups across a range of institutional settings.

Figures 43 and 44 describe the gender and racial/ethnic composition for reported graduates of Bachelor's in Social Work programs in the Los Angeles region during the period 2001-2005.

**Figure 43.**  
2001-2005 Gender Composition for Reported Graduates of Bachelor's in Social Work Programs: Los Angeles Region



**Figure 44.**  
2001-2005 Racial/Ethnic Composition for Reported  
Graduates of Bachelor's in Social Work Programs:  
Los Angeles Region



Source: Integrated Postsecondary Education Data System (IPEDS)

### Summary: Social and Human Services Assistant

The Social and Human Services Assistant workforce varies considerably in size across the different counties in the Los Angeles region. Evaluated in terms of an employment-to-population ratio, the workforce in Santa Barbara County is roughly twice as concentrated as it is in Los Angeles County and nearly three times as concentrated as the Inland Empire and Ventura County. This likely results from a cluster of business establishments in Santa Barbara County that provide social and community services, but further investigation would be required to fully understand the data.

The estimated annual median wage for Social and Human Services Assistants is also highest in Santa Barbara County, roughly \$7,000 greater than the median wage in the Inland Empire (the lowest of the five counties in the Los Angeles

region). Projection data indicate that employment opportunity will grow most rapidly in Los Angeles County (where openings will also be most numerous). However, relatively rapid growth of employment for Social and Human Service Assistants is projected for all counties in the region; the actual number of expected annual openings will vary by county.

### Human Services Education

Educational training for Human Services Assistants is concentrated in the California Community College system, although programs are offered at CSU San Bernardino and CSU Dominguez Hills. Data indicate that most students pursue certificates taking less than one year to complete; the associate's degree is far less frequently awarded. It appears that the number of graduates is increasing over time, but this can be explained by the fact that the two CSU programs began reporting data in 2003. Graduates are predominantly women; on average, 80% of the annual total. They are racially and ethnically diverse. Hispanic/Latino and African American students are the two largest racial/ethnic groups. In 2005 they were roughly equal in size, each representing roughly 35%. The two largest programs, in terms of the number of graduates, are CSU Dominguez Hills and Long Beach City College. African American graduates represent approximately half of the total number of graduates from both of these programs.

Schools reporting data in 2005 are:

- Allan Hancock College
- CSU San Bernardino
- CSU Dominguez Hills
- College of the Desert
- Long Beach City College
- Los Angeles Trade Technical College
- Los Angeles City College
- Oxnard College
- Riverside Community College
- San Bernardino Valley College
- Ventura College
- West Los Angeles College

### **Substance Abuse/Addiction Counseling Education**

Educational training for Substance Abuse/Addiction Counseling is concentrated in the California Community College system. Programs are also offered at private, less-than-two-year institutions, and Loma Linda University offers a post-baccalaureate certificate geared toward established professionals. Data indicate that most students receive a certificate taking between one and two years to complete. Total annual output (the number of graduates) seems to be increasing over time, but this can be explained by an increasing number of institutions reporting data. The gender composition of graduates is comparatively balanced; on average, 55% women and 45% men. The racial and ethnic composition of graduates appears to be becoming more balanced over time. Hispanic/Latino and White students represent the two largest racial/ethnic groups, but the proportion of White graduates has declined since

2001. African American graduates are also heavily represented in Substance Abuse/Addiction Counseling programs, forming roughly 20% of the total each year.

Schools reporting data in 2005 are:

- Allan Hancock College
- Charles R Drew University
- East Los Angeles College
- Glendale Community College
- Loma Linda University
- Long Beach City College
- Los Angeles Pierce College
- Los Angeles Southwest College
- Los Angeles City College
- Mt. San Antonio College
- Mt. San Jacinto College
- College of the Desert
- Oxnard College
- Palo Verde College
- Rio Hondo College
- Santa Barbara City College
- San Bernardino Valley College
- Intercoast College (Burbank)
- Intercoast College (Riverside)



## Bachelor's Level Social Work Education

The majority of social work education at the bachelor's level occurs in the region's CSU institutions. CSU Los Angeles produces more than 60% of the total number of graduates each year and CSU Long Beach another 25%. Women predominate in undergraduate social work programs, representing 85-90% of the total. There are two striking features with respect to the racial and ethnic composition of bachelor's level social work graduates. The first is that more than half of the graduates each year are Hispanic/Latino; the second is the significant decline in the number of African American graduates over the past five years. The data indicate that prior to 2003 there was an undergraduate social work program at CSU Dominguez Hills from which a significant number of African American students graduated. The university no longer offers social work education at the bachelor's level, which would account for the declining numbers of African American graduates after 2003.

Schools reporting data in 2005 are:

- Azusa Pacific University
- CSU San Bernardino
- CSU Long Beach
- CSU Los Angeles
- La Sierra University
- University of Southern California
- Whittier College

## Conclusion

This report presents and analyzes data describing the demographic composition of three principal groups in The California Endowment Los Angeles region (Los Angeles, San Bernardino, Riverside, Santa Barbara and Ventura counties). These include the general population, the current health professions workforce and graduates of selected allied health education programs. The selected occupations represent a broad spectrum of workplace settings, scope of practice and educational requirements. Many in these professions are the primary contact in the health care system for poor, underserved and special needs communities. In addition, many of these occupations are expected to offer substantial job opportunity over the next decade.

General population data serve as an important benchmark. The report examines demographic features of the current population and the projected population, which allows for comparison with the current health professions workforce and health professions student populations. It also includes information on current wage levels and projected occupational employment, which can be used to evaluate the relationships between wages, employment opportunity and demographic diversity.

***...limited English capability and high teen birth rates have implications for career planning and the preparation needed for entry into health occupations.***

The current population in the Los Angeles region is approaching a majority-minority. The ethnically Hispanic/Latino population represents approximately 45% of the region's general population, while the next-largest group, Whites, is approximately 35%. (The racially White population remains the largest racial/ethnic group in the state as a whole.) The majority-minority is unique among the different geographic regions of the state. However, there is substantial variation in the racial/ethnic composition of the region across the different counties. Los Angeles County is by far the largest and most diverse in the region, but the Inland Empire is also becoming increasingly racially and ethnically diverse. Ninety-two percent of the regional population lives in three of the five counties: Los Angeles, San Bernardino and Riverside. The demographic composition of the region is largely determined by these three counties, due to their absolute size.

The Hispanic/Latino population is considerably younger than other racial/ethnic groups (except those who are identified as Multirace). In 2005, the median age among Hispanics or Latinos was 26.5 years of age; by contrast, the median age for Asians was 36.9 and for Whites it was 42.6. Two other key features of the region's population demographics are the fact that Hispanic/Latino fertility rates among birth age women, which are considerably higher than other racial/

ethnic groups, and the sheer number of live births in 2005 to Hispanic/Latino women ages 15-19, nearly nine times as large as women in that age range in any other racial/ethnic group.

In 2005, approximately 30% of the Hispanic/Latino population between the ages of 18 and 64 self-reported that they spoke English either "not well" or "not at all." The level of educational attainment among the Hispanic/Latino population over the age of 25 is significantly lower than other racial/ethnic groups. In 2005, just 13% of this population reported having earned at least an associate's degree. These are all important factors that shape the composition of the potential regional labor force, and by extension the composition of the pool of labor available to work in allied health occupations. Population information may be useful in several ways for workforce planning. Factors such as limited English capability and high teen birth rates have implications for career planning and the preparation needed for entry into health occupations.

Analysis of broad occupational groups in the region's current health professions workforce reveals a clear pattern. Racial and ethnic diversity diminishes in the workforce as the level of required education, and the wages that accompany it increase. The most highly paid, highly trained health care professionals are the least amount racially and ethnically diverse. In community/social service

occupations, it is clear that counselors and social workers who hold advanced degrees—and by assumption earn more—are far less racially and ethnically diverse than those professionals who do not hold advanced degrees. By contrast, the broad group of health care support occupations—which often require no more than on-the-job training, and are at the bottom of the wage scale—exhibit considerably greater racial and ethnic diversity.

Estimated wages and the concentration of employment as measured by employment-to-population ratios reveal county-level variations across the region. For certain occupations, including Dental Assistant and Dental Hygienist and some mental health, public health and social work professionals, estimated wages are higher in Santa Barbara and Ventura counties. For other occupations, such as Physician Assistants and Registered Nurses, wages are considerably higher in Los Angeles County. For most of the other selected occupations, the range of estimated wages across the different counties is narrow.

In terms of absolute size, the workforce in Los Angeles County is much larger than the other counties in the region. In turn, the size of the workforce in the Inland Empire is much larger than it is in either Santa Barbara County or Ventura County. However, when adjusted for the size of the population, the concentration of employment is more variable.

For example, Social/Human Service Assistants, Mental Health/Substance Abuse Social Workers and Home Health Aides are two to three times as concentrated in Santa Barbara County as the rest of the region. Substance Abuse/Behavioral Disorder Counselors and Nursing Aides are also highly concentrated in Santa Barbara County. In Los Angeles County, employment for Registered Nurses (and we assume for Registered Nurse Practitioners as well), Licensed Vocational Nurses and Nursing Aides is more highly concentrated than other counties in the region. Psychiatric Technicians are twice as concentrated in the Inland Empire than in Los Angeles County. There may be simple explanations for the variable employment-to-population ratios, such as the clustering of certain health care or social service industries.

Employment projection data, which describe future employment opportunities, indicate a general pattern consistent with the notion that population growth drives employment opportunity. Los Angeles, Riverside and San Bernardino counties rank first second and third statewide in terms of the absolute size of population growth projected to occur in the coming decades. As a result, for most of the occupations selected for analysis in this report, where future employment opportunity is projected to grow rapidly, it is projected to grow most rapidly in these three counties. And because the absolute size

**Many of the occupations that are fast-growing and that are projected to offer significant employment opportunity are entry-level and low paying.**

of each individual workforce in Los Angeles County is so much larger than other counties in the region, the absolute number of job openings in Los Angeles County is projected to be considerably greater. Likewise, the absolute number of job opportunities in the Inland Empire is projected to be greater than in either Santa Barbara County or Ventura County.

Many of the occupations that are fast-growing and that are projected to offer significant employment opportunity are entry-level and low paying. These are the health care support occupations such as Home Health Aide, Nursing Aide, Dental Assistant and Medical Assistant. In theory, there are step-wise “career ladders” that would lead those working in these occupations to career advancement. However, career development is costly and resource-intensive, requiring considerable individual and system investment. Therefore, not everyone may be a candidate for a career ladder and advancement opportunities may be limited. An equal focus is needed on addressing issues of wages and job satisfaction.

Dental Hygiene and Registered Nursing are two careers that serve as exceptions to the general trend of job creation concentrated in low level support occupations. Employment opportunity for higher-wage Dental Hygienists is projected to grow rapidly across the region, with the exception of Santa Barbara County. And although

employment for Registered Nurses (and we assume Registered Nurse Practitioners) isn’t necessarily projected to grow rapidly in all counties, because it is such a large workforce the number of job openings will be significant across the region.

Another occupation that is projected to grow rapidly, and is also an exception to the general trend of job creation among support occupations, is Physician Assistant. In four of the five counties in the Los Angeles region this workforce is projected to grow faster than roughly 95% of all other occupations. However, because it is such a small workforce job openings will be relatively few in number.

Data describing graduates of the various education programs tends to mirror findings in the analysis of the current workforce. Graduates of programs that lead to employment in low-paying support occupations are comparatively racially and ethnically diverse. In general, as the level of education increases and as admission slots become more competitive, racial and ethnic diversity diminishes.

Hispanic/Latino students are heavily represented in the following training programs: Dental Assistant, Medical Assistant, Pharmacy Technician, Human Services and social work programs at the bachelor’s level. They are also well-represented social work programs at the master’s level. African American

students are heavily represented in Psychiatric Technician programs and certificate programs for Substance Abuse/Addiction Counseling and Human Services. Evaluated in terms of representation in the general population, African American students are not often underrepresented in any of the selected education programs. The African American population represents approximately 8% of the Los Angeles region's total population; it is only in Dental Hygiene programs where African American students represent less than 8% of the total body of graduates.

Native American students never form more than 1-2% of the total number of graduates for any of the selected education programs. In many cases, they represent somewhat less than 1% of the total. Again, evaluated in terms of representation in the general population, Native American students wouldn't be considered underrepresented. The Native American population forms roughly 0.4% of the region's population. It is rare that Native American students represent less than this as a proportion of the total number of graduates in any of the selected education programs, although there are examples where in certain years, for certain programs, not a single Native American graduate is reported.

Although these data are subject to limitations, there are several practical uses for this report. Descriptions of the

demographic composition of the current workforce, despite being overly general, illustrate the lack of racial and ethnic diversity among health care occupations that involve higher levels of education and higher earnings. The data describing education program graduates indicates how different racial/ethnic groups are potentially distributed across new entrants into the workforce. Estimates of employment and wages describe the wide variation in both workforce size and earnings across allied health occupations. These estimates can be combined with the demographic data describing the workforce and education program graduates, and the employment projections data describing future opportunity to highlight broad allied health workforce trends in the Los Angeles region. These findings may be useful in guiding workforce planning and identifying areas, populations and programs that could benefit from support in order to achieve the goal of a culturally competent workforce.

**Appendix A.**

*Detailed Listing of Occupations Represented by Broad Standard Occupation Code Groups Used in this Report*

**SOC 21-1010:  
Community and Social Service Counselors**

- Substance Abuse and Behavioral Disorder Counselors
- Educational, Vocational and School Counselors
- Marriage and Family Therapists
- Mental Health Counselors
- Rehabilitation Counselors

**SOC 21-1020:  
Community and Social Service Social Workers**

- Child, Family and School Social Workers
- Medical and Public Health Social Workers
- Mental Health and Substance Abuse Social Workers

**SOC 21-1090:  
Miscellaneous Community and Social Service Specialists**

- Health Educators
- Probation Officers and Correctional Treatment Specialists
- Social & Human Service Assistants

**SOC 29-1000:  
Health Diagnosing and Treating Practitioners**

- Chiropractors
- Dentists
- Dietitians and Nutritionists
- Optometrists
- Pharmacists
- Physicians & Surgeons
- Physician Assistants
- Podiatrists
- Registered Nurses
- Audiologists
- Occupational Therapists
- Physical Therapists
- Radiation Therapists
- Recreational Therapists
- Respiratory Therapists
- Speech-Language Therapists

**SOC 29-2000:  
Health Technologists and Technicians**

- Medical & Clinical Laboratory Technologists
- Medical & Clinical Laboratory Technicians
- Dental Hygienists
- Cardiovascular Technologists and Technicians
- Diagnostic Medical Sonographers
- Nuclear Medicine Technologists
- Radiologic Technologists and Technicians
- Emergency Medical Technicians & Paramedics
- Dietetic Technicians
- Pharmacy Technicians
- Psychiatric Technicians
- Respiratory Therapy Technicians
- Surgical Technologists
- Licensed Vocational/Practical Nurses
- Medical Records and Health Information Technicians
- Opticians, Dispensing

**SOC 31-0000:  
Health Care Support Occupations**

- Home Health Aides
- Nursing Aides, Orderlies and Attendants
- Psychiatric Aides
- Occupational Therapist Assistants and Aides
- Physical Therapist Assistants and Aides
- Dental Assistants
- Medical Assistants
- Pharmacy Aides

**Appendix B1.**

Los Angeles County: 2006 Estimated Employment, Employment per 100,000 Population and Hourly/Annual Wages by Occupation

Occupation	Estimated Employment	Employment per 100,000 Population	Median Hourly	Median Annual
Dental Assistant	9,700	95	\$ 13.30	\$ 27,664
Dental Hygienist	6,760	66	\$ 34.30	\$ 71,344
Medical Assistant	15,140	148	\$ 14.40	\$ 29,952
Pharmacy Technician	6,170	60	\$ 16.18	\$ 33,654
EMT/Paramedic	2,780	27	\$ 11.53	\$ 23,982
EMT/Paramedic	—	—	\$ 21.19*	\$ 44,075
Home Health Aide	9,960	97	\$ 9.59	\$ 19,947
Nursing Aide	29,410	288	\$ 10.41	\$ 21,653
Licensed Vocational Nurse	17,850	175	\$ 20.69	\$ 43,035
Nurse Practitioner (RN)	64,820	634	\$ 34.42	\$ 71,590
Nurse Practitioner (RN)	—	—	\$ 45.82*	\$ 95,306*
Physician Assistant	1,190	12	\$ 42.81	\$ 89,045
Psychiatric Technician	1,970	19	\$ 21.33	\$ 44,366
Mental Health Counselor	3,330	33	\$ 15.05	\$ 31,304
Substance Abuse/Behavioral Disorder Counselor	2,460	24	\$ 13.59	\$ 28,267
Mental Health/Substance Abuse Social Worker	2,330	23	\$ 16.90	\$ 35,152
Public/Community Health Educator	2,500	24	\$ 16.37	\$ 34,050
Medical/Public Health Social Worker	2,420	24	\$ 24.10	\$ 50,128
Social/Human Service Assistant	6,640	65	\$ 13.96	\$ 29,037

\* Estimated wage is for 90th percentile.

**Appendix B2.**

Riverside/San Bernardino Counties: 2006 Estimated Employment, Employment per 100,000 Population and Hourly/Annual Wages by Occupation

Occupation	Estimated Employment	Employment per 100,000 Population	Median Hourly	Median Annual
Dental Assistant	3,350	86	\$ 13.55	\$ 28,184
Dental Hygienist	1,240	32	\$ 34.53	\$ 71,822
Medical Assistant	7,260	186	\$ 12.08	\$ 25,126
Pharmacy Technician	2,310	59	\$ 15.30	\$ 31,824
EMT/Paramedic	1,420	36	\$ 12.18	\$ 23,650
EMT/Paramedic	—	—	\$ 19.60*	\$ 40,768
Home Health Aide	3,980	102	\$ 8.88	\$ 18,470
Nursing Aide	6,730	173	\$ 10.72	\$ 22,298
Licensed Vocational Nurse	5,300	136	\$ 19.03	\$ 39,582
Nurse Practitioner (RN)	19,760	507	\$ 32.77	\$ 68,170
Nurse Practitioner (RN)	—	—	\$ 43.12*	\$ 89,690*
Physician Assistant	760	19	\$ 38.09	\$ 79,227
Psychiatric Technician	1,560	40	\$ 21.90	\$ 45,552
Mental Health Counselor	1,260	32	\$ 16.85	\$ 35,048
Substance Abuse/Behavioral Disorder Counselor	950	24	\$ 14.39	\$ 29,931
Mental Health/Substance Abuse Social Worker	760	19	\$ 17.21	\$ 35,797
Public/Community Health Educator	350 <sup>†</sup>	9	\$ 17.41	\$ 36,213
Medical/Public Health Social Worker	920	24	\$ 25.93	\$ 53,934
Social/Human Service Assistant	2,000	51	\$ 12.44	\$ 25,875

\* Estimated wage is for 90th percentile.

† Estimate is from 2005.



**Appendix B3.**

Santa Barbara County: 2006 Estimated Employment, Employment per 100,000  
Population and Hourly/Annual Wages by Occupation

Occupation	Estimated Employment	Employment per 100,000 Population	Median Hourly	Median Annual
Dental Assistant	470	112	\$ 15.97	\$ 33,218
Dental Hygienist	320	77	\$ 36.29	\$ 75,483
Medical Assistant	640	153	\$ 12.99	\$ 27,019
Pharmacy Technician	240	59	\$ 16.90	\$ 35,152
EMT/Paramedic	N/A	N/A	\$ 11.58	\$ 22,422
EMT/Paramedic	–	–	\$ 20.13*	\$ 41,870
Home Health Aide	1,130 <sup>†</sup>	270	\$ 8.95	\$ 18,616
Nursing Aide	970	232	\$ 12.44	\$ 25,875
Licensed Vocational Nurse	430	103	\$ 21.52	\$ 44,762
Nurse Practitioner (RN)	1,680	402	\$ 32.51	\$ 67,610
Nurse Practitioner (RN)	–	–	\$ 41.13*	\$ 85,550*
Physician Assistant	80	19	\$ 36.91	\$ 76,773
Psychiatric Technician	N/A	N/A	N/A	N/A
Mental Health Counselor	N/A	N/A	\$ 16.87	\$ 35,090
Substance Abuse/Behavioral Disorder Counselor	140	33	\$ 17.02	\$ 35,402
Mental Health/Substance Abuse Social Worker	330 <sup>†</sup>	79	\$ 20.27	\$ 42,162
Public/Community Health Educator	110	26	\$ 16.11	\$ 33,509
Medical/Public Health Social Worker	80	19	\$ 29.93	\$ 62,254
Social/Human Service Assistant	500	120	\$ 15.85	\$ 32,968

\* Estimated wage is for 90th percentile.

† Estimate is from 2005.

**Appendix B4.**

*Ventura County: 2006 Estimated Employment, Employment per 100,000 Population and Hourly/Annual Wages by Occupation*

Occupation	Estimated Employment	Employment per 100,000 Population	Median Hourly	Median Annual
Dental Assistant	750	92	\$ 16.22	\$ 33,738
Dental Hygienist	480	59	\$ 36.90	\$ 76,752
Medical Assistant	1,510	186	\$ 14.24	\$ 29,619
Pharmacy Technician	340	42	\$ 15.92	\$ 33,114
EMT/Paramedic	N/A	N/A	N/A	N/A
EMT/Paramedic	–	–	–	–
Home Health Aide	1,370	168	\$ 9.92	\$ 20,634
Nursing Aide	1,480	182	\$ 11.86	\$ 24,669
Licensed Vocational Nurse	880	108	\$ 20.96	\$ 43,597
Nurse Practitioner (RN)	4,330	532	\$ 30.61	\$ 63,670
Nurse Practitioner (RN)	–	–	\$ 42.86*	\$ 89,149*
Physician Assistant	70	9	\$ 32.87	\$ 68,370
Psychiatric Technician	N/A	N/A	N/A	N/A
Mental Health Counselor	110 <sup>†</sup>	14	\$ 13.23	\$ 27,518
Substance Abuse/Behavioral Disorder Counselor	140	17	\$ 16.66	\$ 34,653
Mental Health/Substance Abuse Social Worker	360 <sup>†</sup>	44	\$ 19.24	\$ 40,019
Public/Community Health Educator	80	10	\$ 19.37	\$ 40,290
Medical/Public Health Social Worker	80	10	\$ 29.33	\$ 61,006
Social/Human Service Assistant	370	45	\$ 15.39	\$ 32,011

\* Estimated wage is for 90th percentile.

† Estimate is from 2005.

**Appendix C1.***Los Angeles County: Employment Projections 2004-2014 and Growth Rankings by Occupation*

<b>Occupation</b>	<b>Fastest Growth Ranking</b>	<b>Most Growth Ranking</b>	<b>Avg. No. of Job Openings/Year</b>
Dental Assistant	Top 1%	Top 10%	713
Registered Dental Hygienist	Top 1%	Top 25%	254
Medical Assistant	Top 1%	Top 15%	819
Pharmacy Technician	Top 20%	Top 30%	208
EMT/Paramedic	Top 1%	Top 50%	123
Home Health Aide	Top 2%	Top 20%	427
Nursing Aide	Top 15%	Top 10%	1086
Licensed Vocational Nurse	Top 30%	Top 15%	606
Nurse Practitioner (RN)	Top 10%	Top 2%	3024
Physician Assistant	Top 1%	Bottom 50%	81
Psychiatric Technician	Bottom 50%	Bottom 50%	46
Mental Health Counselor	Top 15%	Top 50%	144
Substance Abuse/Behavioral Disorder Counselor	Top 35%	Top 50%	97
Mental Health/Substance Abuse Social Worker	Top 25%	Top 50%	84
Public/Community Health Educator	Top 15%	Top 50%	82
Medical/Public Health Social Worker	Top 25%	Top 50%	105
Social/Human Service Assistant	Top 10%	Top 25%	294

**Appendix C2.**

*Riverside and San Bernardino Counties: Employment Projections 2004-2014 and Growth Rankings by Occupation*

<b>Occupation</b>	<b>Fastest Growth Ranking</b>	<b>Most Growth Ranking</b>	<b>Avg. No. of Job Openings/Year</b>
Dental Assistant	Top 1%	Top 15%	242
Registered Dental Hygienist	Top 1%	Top 30%	78
Medical Assistant	Top 10%	Top 15%	269
Pharmacy Technician	Top 50%	Top 30%	80
EMT/Paramedic	Top 1%	Top 50%	71
Home Health Aide	Top 50%	Top 25%	118
Nursing Aide	Bottom 5%	Top 20%	226
Licensed Vocational Nurse	Bottom 50%	Top 25%	169
Nurse Practitioner (RN)	Top 50%	Top 5%	858
Physician Assistant	Top 5%	Top 50%	55
Psychiatric Technician	Bottom 10%	Bottom 50%	20
Mental Health Counselor	Top 50%	Top 50%	61
Substance Abuse/Behavioral Disorder Counselor	Bottom 50%	Top 50%	42
Mental Health/Substance Abuse Social Worker	Bottom 50%	Bottom 50%	22
Public/Community Health Educator	Top 50%	Bottom 25%	15
Medical/Public Health Social Worker	Bottom 50%	Bottom 50%	26
Social/Human Service Assistant	Top 25%	Top 30%	75

**Appendix C3.**

Santa Barbara County: Employment Projections 2004-2014 and Growth Rankings by Occupation

Occupation	Fastest Growth Ranking	Most Growth Ranking	Avg. No. of Job Openings/Year
Dental Assistant	Top 40%	Top 25%	24
Registered Dental Hygienist	Bottom 25%	Top 50%	4
Medical Assistant	Top 25%	Top 10%	56
Pharmacy Technician	Bottom 25%	Top 50%	7
EMT/Paramedic	Bottom 10%	Bottom 25%	3
Home Health Aide	Bottom 50%	Top 50%	15
Nursing Aide	Bottom 10%	Top 25%	18
Licensed Vocational Nurse	Bottom 10%	Top 50%	16
Nurse Practitioner (RN)	Bottom 50%	Top 5%	59
Physician Assistant	Top 30%	Bottom 25%	2
Psychiatric Technician	N/A	N/A	N/A
Mental Health Counselor	Bottom 50%	Bottom 25%	3
Substance Abuse/Behavioral Disorder Counselor	Bottom 50%	Bottom 25%	3
Mental Health/Substance Abuse Social Worker	Bottom 50%	Bottom 25%	2
Public/Community Health Educator	N/A	N/A	N/A
Medical/Public Health Social Worker	N/A	N/A	N/A
Social/Human Service Assistant	Top 25%	Top 25%	17

**Appendix C4.**

*Ventura County: Employment Projections 2004-2014 and Growth Rankings by Occupation*

<b>Occupation</b>	<b>Fastest Growth Ranking</b>	<b>Most Growth Ranking</b>	<b>Avg. No. of Job Openings/Year</b>
Dental Assistant	Top 10%	Top 20%	42
Registered Dental Hygienist	Top 10%	Top 40%	20
Medical Assistants	Top 1%	Top 15%	89
Pharmacy Technician	Top 10%	Top 50%	13
EMT/Paramedic	Top 25%	Bottom 25%	5
Home Health Aide	Top 1%	Top 15%	77
Nursing Aide	Top 15%	Top 20%	49
Licensed Vocational Nurse	Bottom 50%	Top 30%	25
Nurse Practitioner (RN)	Top 10%	Top 5%	188
Physician Assistant	Top 1%	Bottom 25%	3
Psychiatric Technician	N/A	N/A	N/A
Mental Health Counselor	Bottom 50%	Bottom 50%	4
Substance Abuse/Behavioral Disorder Counselor	Top 20%	Bottom 25%	5
Mental Health/Substance Abuse Social Worker	Top 50%	Top 50%	8
Public/Community Health Educator	Top 15%	Bottom 25%	4
Medical/Public Health Social Worker	Top 15%	Bottom 10%	2
Social/Human Service Assistant	Top 25%	Top 50%	10

**Appendix D1.***Los Angeles County: Institution and Program Listing*

<b>Institution and Program</b>	<b>City</b>	<b>Zip</b>
<b>Academy of English Language</b> Licensed Vocational Nurse	Los Angeles	90010
<b>Adelante Career Institute</b> Pharmacy Technician	Van Nuys	91402
<b>Advanced College</b> Medical Assistant	South Gate	90280
<b>Advanced Computing Institute</b> Licensed Vocational Nurse	Los Angeles	90010
<b>Alliant International University</b> Mental Health Counselor (Master's level Psychology)	Alhambra	91803
<b>Allied Medical and Health Services, Inc.</b> Licensed Vocational Nurse	Glendale	91204
<b>American Career College</b> Medical Assistant, Pharmacy Technician, Licensed Vocational Nurse, Dental Assistant	Los Angeles	90004
<b>American College of Medical Technology</b> Medical Assistant	Gardena	90248
<b>American Institute of Health Sciences</b> Pharmacy Technician	Long Beach	90807
<b>American Scientific Institute</b> Licensed Vocational Nurse	Los Angeles	90010
<b>Angeles College of Nursing</b> Licensed Vocational Nurse	Los Angeles	90010
<b>Angeles Institute</b> Licensed Vocational Nurse	Lakewood	90712
<b>Antelope Valley College</b> Medical Assistant, EMT Paramedic, Licensed Vocational Nurse, Certified Nurse Assistant, Home Health Aide	Lancaster	93534
<b>Antelope Valley Medical College</b> Medical Assistant, EMT Paramedic, Certified Nurse Assistant	Lancaster	93534
<b>Antioch University – Los Angeles Campus</b> Mental Health Counselor (Master's level Psychology)	Culver City	90230
<b>Azusa Pacific University</b> Nurse Practitioner, Bachelor's in Social Work Program, Mental Health Counselor (Master's level Psychology)	Azusa	91702

**Appendix D1. (continued)**

*Los Angeles County: Institution and Program Listing*

<b>Institution and Program</b>	<b>City</b>	<b>Zip</b>
<b>B&amp;R Nursing School</b> Licensed Vocational Nurse	North Hollywood	91601
<b>Baldwin Park Adult and Community Education</b> Medical Assistant, Pharmacy Technician, Certified Nurse Assistant, Licensed Vocational Nurse	Baldwin Park	91706
<b>Biola University</b> Mental Health Counselor (Master’s level Psychology)	La Mirada	90639
<b>Bryman College – Alhambra</b> Licensed Vocational Nurse, Medical Assistant, Pharmacy Technician, Dental Assistant	Alhambra	91803
<b>Bryman College – City Of Industry</b> Medical Assistant, Dental Assistant	City of Industry	91746
<b>Bryman College – Gardena</b> Medical Assistant, Dental Assistant	Gardena	90247
<b>Bryman College –Los Angeles</b> Medical Assistant, Pharmacy Technician, Dental Assistant	Los Angeles	90010
<b>Bryman College –Reseda</b> Medical Assistant, Dental Assistant	Reseda	91335
<b>Bryman College – Torrance</b> Pharmacy Technician	Torrance	90501
<b>Bryman College – West Los Angeles</b> Medical Assistant, Pharmacy Technician, Dental Assistant	Los Angeles	90034
<b>California Career College</b> Licensed Vocational Nurse	Canoga Park	91303
<b>California Career College – West LA</b> Licensed Vocational Nurse	Calabasas	91372
<b>California State Polytechnic University – Pomona</b> Mental Health Counselor (Master’s level Psychology)	Pomona	91768
<b>California State University – Dominguez Hills</b> Mental Health Counselor (Master’s level Psychology), Human Services Program, Mental Health Social Work (Master’s in Social Work), Gerontology, Community Health (Bachelor’s in Health Science), Nurse Practitioner (online/distance education)	Carson	90747



**Appendix D1. (continued)**

Los Angeles County: Institution and Program Listing

Institution and Program	City	Zip
<b>California State University – Long Beach</b> Mental Health Counselor (Master’s level Psychology), Mental Health Social Work (Master’s in Social Work), Gerontology, Master’s in Public Health Program, Bachelor’s in Social Work Program, Nurse Practitioner, Health Care Interpreter	Long Beach	90840
<b>California State University – Los Angeles</b> Mental Health Counselor (Master’s level Psychology), Mental Health Social Work (Masters in Social Work), Bachelor’s in Social Work Program, Nurse Practitioner, Community Health (Bachelor’s in Health Science), Gerontology (Certificate in Applied Gerontology)	Los Angeles	90032
<b>California State University – Los Angeles Extension</b> Health Care Interpreter	La Verne	91750
<b>California State University – Northridge</b> Mental Health Counselor (Master’s level Psychology), Bachelors in Public Health Program, Master’s in Public Health Program, Health Care Interpreter, Gerontology (Certificate in Applied Gerontology)	Northridge	91330
<b>Career Care Institute – Lancaster</b> Dental Assistant, Medical Assistant, Licensed Vocational Nurse	Lancaster	93534
<b>Career Colleges of America – South Gate</b> Medical Assistant, Pharmacy Technician, Licensed Vocational Nurse	South Gate	90280
<b>Career Colleges of America – Los Angeles</b> Licensed Vocational Nurse	Los Angeles	90035
<b>Career Development Institute</b> Licensed Vocational Nurse	Los Angeles	90035
<b>Casa Loma College – Los Angeles</b> Licensed Vocational Nurse	Hawthorne	90250
<b>Casa Loma College – Van Nuys</b> Licensed Vocational Nurse, Medical Assistant, Certified Nurse Assistant	Van Nuys	91405
<b>Center of Education and Technology</b> Licensed Vocational Nurse	Whittier	90605
<b>Central Nursing College</b> Licensed Vocational Nurse	Los Angeles	90010
<b>Cerritos College</b> Dental Hygienist, Medical Assistant, Pharmacy Technician, Dental Assistant, Mental Health Worker	Norwalk	90650

**Appendix D1. (continued)***Los Angeles County: Institution and Program Listing*

<b>Institution and Program</b>	<b>City</b>	<b>Zip</b>
<b>Charles R. Drew University of Medicine and Science</b> Medical Assistant, Pharmacy Technician, Physician Assistant, Substance Abuse/Addiction Counselor	Los Angeles	90059
<b>Citrus College</b> Dental Assistant, Licensed Vocational Nurse	Glendora	91741
<b>Claremont Graduate University</b> Mental Health Counselor (Master's level Psychology)	Claremont	91711
<b>Clarita Career College</b> Pharmacy Technician, Licensed Vocational Nurse, Dental Assistant	Canyon Country	91351
<b>College of Nursing and Technology</b> Licensed Vocational Nurse	Reseda	91335
<b>College of the Canyons</b> Medical Assistant	Santa Clarita	91355
<b>Community Based Education and Development</b> Licensed Vocational Nurse, Medical Assistant	Los Angeles	90036
<b>Concorde Career College – North Hollywood</b> Licensed Vocational Nurse, Medical Assistant, Dental Assistant	North Hollywood	91606
<b>Conejo Valley Adult Education</b> Medical Assistant	Thousand Oaks	91360
<b>Downey Adult School</b> Licensed Vocational Nurse	Downey	90241
<b>DVS College</b> Dental Assistant, Medical Assistant, Pharmacy Technician	Los Angeles	90010
<b>East Los Angeles College</b> Medical Assistant, EMT Paramedic, Substance Abuse/Addiction Counselor	Monterey Park	91754
<b>East San Gabriel Valley Regional Occupational Program</b> Medical Assistant	West Covina	91790
<b>El Camino College</b> EMT Paramedic	Torrance	90506
<b>El Camino College Compton Center</b> EMT Paramedic	Compton	90221
<b>El Monte-Rosemead Adult School</b> Licensed Vocational Nurse	El Monte	91731
<b>Excel Vocational Institute</b> Licensed Vocational Nurse	San Pedro	90732

**Appendix D1. (continued)**

Los Angeles County: Institution and Program Listing

<b>Institution and Program</b>	<b>City</b>	<b>Zip</b>
<b>Fuller Theological Seminary In California</b> Mental Health Counselor (Master's level Psychology)	Pasadena	91182
<b>Glendale Career College</b> Licensed Vocational Nurse, Medical Assistant	Glendale	91201
<b>Glendale Community College</b> Medical Assistant, Substance Abuse/Addiction Counselor	Glendale	91208
<b>Hacienda La Puente Adult Education</b> Medical Assistant, Licensed Vocational Nurse, Dental Assistant, Psychiatric Technician	City of Industry	91745
<b>Harbor-UCLA Medical Center Women's Health Care Nurse Practitioner Program</b> Nurse Practitioner Program, Nurse Practitioner	Torrance	90502
<b>Healthcare Education Advancement Center</b> Licensed Vocational Nurse	Montrose	91020
<b>High Desert Medical College</b> Licensed Vocational Nurse	Lancaster	93534
<b>Homestead Schools, Inc.</b> Licensed Vocational Nurse	Torrance	90505
<b>ICDC College</b> Medical Assistant	Los Angeles	90027
<b>Integrity College of Health</b> Licensed Vocational Nurse	Pasadena	91107
<b>Intercoast Colleges – Burbank</b> Medical Assistant, Pharmacy Technician, Substance Abuse/Addiction Counselor	Burbank	91502
<b>Intercoast Colleges – West Covina</b> Medical Assistant, Pharmacy Technician	West Covina	91790
<b>International Career Development Center, Inc.</b> Licensed Vocational Nurse	Los Angeles	90027
<b>LA Care Health Plan</b> Health Care Interpreter	Los Angeles	90013
<b>Long Beach City College</b> Medical Assistant, Licensed Vocational Nurse, Certified Nurse Assistant, Home Health Aide, Substance Abuse/Addiction Counselor, Adult Development and Aging, Human Services Programs	Long Beach	90808

**Appendix D1. (continued)**

*Los Angeles County: Institution and Program Listing*

<b>Institution and Program</b>	<b>City</b>	<b>Zip</b>
<b>Los Angeles City College</b> Substance Abuse/Addiction Counselor, Human Services Programs	Los Angeles	90029
<b>Los Angeles Mission College</b> Adult Development & Aging	Sylmar	91342
<b>Los Angeles ORT Technical Institute – Los Angeles</b> Pharmacy Technician	Los Angeles	90048
<b>Los Angeles ORT Technical Institute – Sherman Oaks</b> Pharmacy Technician	Sherman Oaks	91403
<b>Los Angeles Pierce College</b> Substance Abuse/Addiction Counselor	Woodland Hills	91371
<b>Los Angeles Southwest College</b> Substance Abuse/Addiction Counselor	Los Angeles	90047
<b>Los Angeles Trade Tech College</b> Licensed Vocational Nurse, Human Services Programs	Los Angeles	90015
<b>Los Angeles Unified School District – Crenshaw Community Adult School</b> Licensed Vocational Nurse	Los Angeles	90043
<b>Los Angeles Unified School District – East LA Occupational Center</b> Licensed Vocational Nurse	Los Angeles	90033
<b>Los Angeles Unified School District – LA County</b> Licensed Vocational Nurse	Los Angeles	90033
<b>Los Angeles Unified School District – LA Technology Center</b> Licensed Vocational Nurse	Los Angeles	90018
<b>Los Angeles Unified School District – Locke Community Adult School</b> Licensed Vocational Nurse	Los Angeles	90061
<b>Los Angeles Unified School District – Maxine Waters Employment Preparation Center</b> Licensed Vocational Nurse	Los Angeles	90059
<b>Los Angeles Unified School District – North Valley Occupational Center</b> Licensed Vocational Nurse	Mission Hills	91345
<b>Los Angeles Unified School District – Sylmar</b> Licensed Vocational Nurse	Sylmar	91342
<b>Los Angeles Unified School District – West Valley Occupational Center</b> Licensed Vocational Nurse	Woodland Hills	91367
<b>Loyola Marymount University</b> Substance Abuse/Addiction Counselor	Los Angeles	90045

**Appendix D1. (continued)**

Los Angeles County: Institution and Program Listing

<b>Institution and Program</b>	<b>City</b>	<b>Zip</b>
<b>Lynwood Community Adult School</b> Licensed Vocational Nurse	Lynwood	90262
<b>Marian College – Wilshire Campus</b> Licensed Vocational Nurse, Medical Assistant, Pharmacy Technician, Certified Nursing Assistant, Home Health Aide	Los Angeles	90010
<b>Marian College –Van Nuys Campus</b> Licensed Vocational Nurse, Medical Assistant, Pharmacy Technician	Van Nuys	91411
<b>Maric College – North Hollywood</b> Licensed Vocational Nurse	North Hollywood	91606
<b>Maric College – Carson</b> Medical Assistant	Carson	90746
<b>Maric College – Irwindale</b> Medical Assistant, Pharmacy Technician	Irwindale	91706
<b>Maric College – Los Angeles</b> Medical Assistant, Pharmacy Technician	Los Angeles	90010
<b>Maric College – North Hollywood</b> Medical Assistant, Pharmacy Technician	North Hollywood	91606
<b>Maric College – Panorama City</b> Medical Assistant	Panorama City	91402
<b>Maric College – Pomona</b> Medical Assistant	Pomona	91768
<b>Medical Allied Career Center</b> Licensed Vocational Nurse	Santa Fe Springs	90670
<b>Mount Saint Mary’s College</b> Nurse Practitioner, Mental Health Counselor (Master’s level Psychology), Gerontology	Los Angeles	90049
<b>Mt. San Antonio College</b> EMT Paramedic, Psychiatric Technician, Substance Abuse/Addiction Counselor, Health Care Interpreter	Walnut	91789
<b>National Institute of Technology</b> Medical Assistant	Long Beach	90810
<b>Newbridge College –Monterey Park</b> Dental Assistant	Monterey Park	91754
<b>North-West College – Glendale</b> Licensed Vocational Nurse, Medical Assistant, Pharmacy Technician	Glendale	91203

**Appendix D1. (continued)***Los Angeles County: Institution and Program Listing*

<b>Institution and Program</b>	<b>City</b>	<b>Zip</b>
<b>North-West College – West Covina</b> Licensed Vocational Nurse, Medical Assistant, Pharmacy Technician, Dental Assistant	West Covina	91790
<b>North-West College – Pasadena</b> Dental Assistant, Medical Assistant, Pharmacy Technician	Pasadena	91101
<b>North-West College – Pomona</b> Medical Assistant, Pharmacy Technician, Dental Assistant, Licensed Vocational Nurse	Pomona	91768
<b>Palladium Technical Academy</b> Licensed Vocational Nurse	El Monte	91731
<b>PALS for Health</b> Health Care Interpreter	Los Angeles	90015
<b>Pasadena City College</b> Dental Hygienist, Medical Assistant, Licensed Vocational Nurse, Dental Assistant	Pasadena	91106
<b>PCI College</b> Medical Assistant	Cerritos	90703
<b>Pepperdine University</b> Mental Health Counselor (Master’s level Psychology)	Malibu	90263
<b>Phillips Graduate Institute</b> Mental Health Counselor (Master’s level Psychology)	Encino	91316
<b>Preferred College of Nursing – Carson</b> Licensed Vocational Nurse	Carson	90745
<b>Preferred College of Nursing – Los Angeles</b> Licensed Vocational Nurse	Los Angeles	90010
<b>Preferred College of Nursing – Van Nuys</b> Licensed Vocational Nurse	Van Nuys	91401
<b>Premiere Career College</b> Medical Assistant, Licensed Vocational Nurse	Irwindale	91706
<b>Rio Hondo College</b> EMT Paramedic, Substance Abuse/Addiction Counselor, Licensed Vocational Nurse	Whittier	90601
<b>Shepherd University</b> Licensed Vocational Nurse	Los Angeles	90012
<b>Southern California School of Interpretation</b> Health Interpreter	Santa Fe Springs	90670
<b>St. Francis Career College – Lynwood</b> Licensed Vocational Nurse	Lynwood	90262

**Appendix D1. (continued)**

Los Angeles County: Institution and Program Listing

<b>Institution and Program</b>	<b>City</b>	<b>Zip</b>
<b>Trinity Vocational Center</b> Licensed Vocational Nurse	Carson	90745
<b>Trinity Vocational Center</b> Licensed Vocational Nurse	Carson	90745
<b>UCLA</b> Nurse Practitioner, Mental Health Social Work (Master's in Social Work), Master's in Public Health	Los Angeles	90095
<b>UCLA Extension</b> Health Care Interpreter	Santa Monica	90404
<b>United Education Institute – Huntington Park</b> Dental Assistant	Huntington Park	90255
<b>United Education Institute – Los Angeles Campus</b> Medical Assistant, Pharmacy Technician, Dental Assistant	Los Angeles	90010
<b>United Education Institute – Van Nuys Campus</b> Dental Assistant	Van Nuys	91405
<b>University of La Verne</b> Mental Health Counselor (Master's level Psychology), Gerontology	La Verne	91750
<b>University of Southern California</b> Dental Hygiene, Physician Assistant, Mental Health Counselor (Master's level Psychology), Mental Health Social Work (Master's in Social Work), Gerontology, Public Health Education and Promotion, Bachelor's in Public Health Program, Master's in Public Health Programs, Bachelor's in Social Work Programs	Los Angeles	90089
<b>Valley School of Allied Health</b> Licensed Vocational Nurse	Reseda	91335
<b>Walter Jay M.D. Institute</b> Medical Assistant, Licensed Vocational Nurse	Los Angeles	90057
<b>West Coast Ultrasound Institute</b> Licensed Vocational Nurse	Beverly Hills	90211
<b>West Los Angeles College</b> Dental Hygienist, Human Services Programs	Culver City	90230
<b>Western University of Health Sciences</b> Physician Assistant, Nurse Practitioner	Pomona	91766
<b>Whittier College</b> Bachelor's in Social Work Programs	Whittier	90608
<b>YWCA Los Angeles Job Corps Center</b> Licensed Vocational Nurse	Los Angeles	90015

**Appendix D2.***Riverside County: Institution and Program Listing*

<b>Institution and Program</b>	<b>City</b>	<b>Zip</b>
<b>Academy of Professional Careers</b> Medical Assistant, Pharmacy Technician	Indio	92201
<b>Beaumont Adult School</b> Licensed Vocational Nurse	Beaumont	92223
<b>California Baptist University</b> Mental Health Counselor (Master's level Psychology)	Riverside	92504
<b>California Nurses Educational Institute</b> Psychiatric Technician, Licensed Vocational Nurse	Cathedral City	92234
<b>College of the Desert</b> Licensed Vocational Nurse, Substance Abuse/Addiction Counselor Human Services Program	Palm Desert	92260
<b>Desert Career College</b> Licensed Vocational Nurse	Cathedral City	92234
<b>Intercoast Colleges – Riverside</b> Medical Assistant, Substance Abuse/Addiction Counselor	Riverside	92507
<b>La Sierra University</b> Bachelor's in Social Work Programs	Riverside	92515
<b>Maric College – Palm Springs</b> Pharmacy Technician	Palm Springs	92262
<b>Maric College – Riverside</b> Medical Assistant, Pharmacy Technician	Riverside	92507
<b>Mt. San Jacinto College</b> Medical Assistant, Substance Abuse/Addiction Counselor, Adult Development and Aging, Licensed Vocational Nurse	San Jacinto	92583
<b>North West College – Riverside</b> Licensed Vocational Nurse	Riverside	92503
<b>Riverside Community College</b> Dental Hygienist, Medical Assistant, EMT Paramedic, Licensed Vocational Nurse, Physician Assistant, Human Services Programs	Riverside	92506
<b>Riverside Community College – Moreno Valley Campus</b> Health Care Interpreter	Moreno Valley	92551
<b>UC Riverside Extension</b> Health Care Interpreter	Riverside	92507
<b>Palo Verde College</b> EMT Paramedic, Certified Nurse Assistant, Home Health Aide, Substance Abuse/Addiction Counselor, Licensed Vocational Nurse	Blythe	92225



**Appendix D3.***San Bernardino County: Institution and Program Listing*

<b>Institution and Program</b>	<b>City</b>	<b>Zip</b>
<b>ABC Educators</b> Licensed Vocational Nurse	Redlands	92374
<b>Baldy View ROP</b> Licensed Vocational Nurse	Ontario	91761
<b>Barstow Community College</b> Medical Assistant	Barstow	92311
<b>Bryman College – Ontario</b> Medical Assistant, Pharmacy Technician, Dental Assistant	Ontario	91761
<b>Bryman College – San Bernardino</b> Medical Assistant	San Bernardino	92408
<b>California State University – San Bernardino</b> Mental Health Counselor (Master's level Psychology), Mental Health Social Work (Master's in Social Work), Human Services Program, Bachelor's in Social Work Program, Nurse Practitioner, Public Health Education and Promotion	San Bernardino	92407
<b>Career Colleges of America</b> Licensed Vocational Nurse	San Bernardino	92408
<b>Chaffey College</b> Pharmacy Technician, Licensed Vocational Nurse Certified Nurse Assistant, Adult Development and Aging, Dental Assistant	Rancho Cucamonga	91737
<b>Concorde Career College</b> Licensed Vocational Nurse, Medical Assistant, Dental Assistant	San Bernardino	92408
<b>Copper Mountain College</b> EMT Paramedic, Licensed Vocational Nurse, Certified Nurse Assistant	Joshua Tree	92252
<b>Crafton Hills College</b> EMT Paramedic	Yucaipa	92395
<b>Four-D College – Colton</b> Dental Assistant, Medical Assistant, Pharmacy Technician, Licensed Vocational Nurse, Certified Nurse Assistant	Colton	92324
<b>Four-D College – Victorville</b> Licensed Vocational Nurse	Victorville	92395
<b>Franklin Career College</b> Licensed Vocational Nurse	Ontario	91761

**Appendix D3. (continued)**

*San Bernardino County: Institution and Program Listing*

Institution and Program	City	Zip
<p><b>Loma Linda University</b>                      Dental Hygienist, EMT Paramedic, Physician Assistant,                      Nurse Practitioner, Substance Abuse/Addiction Counselor,                      Mental Health Counselor (Master’s level Psychology),                      Mental Health Social Work (Master’s in Social Work),                      Public Health Education and Promotion,                      Bachelor’s in Public Health Program, Master’s in Public Health Programs</p>	Loma Linda	92350
<p><b>Redlands Adult School</b>                      Licensed Vocational Nurse</p>	Redlands	92374
<p><b>San Bernardino Adult School</b>                      Licensed Vocational Nurse</p>	San Bernardino	92405
<p><b>San Bernardino Valley College</b>                      Medical Assistant, Pharmacy Technician, Psychiatric Technician                      Substance Abuse/Addiction Counselor, Human Services Programs</p>	San Bernardino	92410
<p><b>San Joaquin Valley College</b>                      Dental Hygienist, Pharmacy Technician, Dental Assistant</p>	Rancho Cucamonga	91730
<p><b>Summit Career College</b>                      Dental Assistant, Medical Assistant, Licensed Vocational Nurse</p>	Colton	92324
<p><b>United Education Institute – Ontario</b>                      Dental Assistant</p>	Ontario	91764
<p><b>Victor Valley Community College</b>                      Medical Assistant, EMT Paramedic</p>	Victorville	92395

**Appendix D4.***Santa Barbara County: Institution and Program Listing*

<b>Institution and Program</b>	<b>City</b>	<b>Zip</b>
<b>Allan Hancock College</b> Medical Assistant, EMT Paramedic, Pharmacy Technician, Licensed Vocational Nurse, Certified Nurse Assistant, Home Health Aide, Substance Abuse/Addiction Counselor, Human Services Programs, Dental Assistant	Santa Maria	93454
<b>Antioch University – Santa Barbara Campus</b> Mental Health Counselor (Master’s level Psychology)	Santa Barbara	93101
<b>Cet - Santa Maria</b> Medical Assistant	Santa Maria	93458
<b>Fielding Graduate University</b> Mental Health Counselor (Master’s level Psychology)	Santa Barbara	93105
<b>Lompoc Unified Adult Education</b> Licensed Vocational Nurse	Lompoc	93436
<b>Pacifica Graduate Institute</b> Mental Health Counselor (Master’s level Psychology)	Carpinteria	93013
<b>Santa Barbara Business College</b> Medical Assistant, Pharmacy Technician	Santa Barbara	93111
<b>Santa Barbara Business College – Santa Maria</b> Licensed Vocational Nurse, Medical Assistant, Pharmacy Technician	Santa Maria	93454
<b>Santa Barbara City College</b> Licensed Vocational Nurse, Substance Abuse/Addiction Counselor	Santa Barbara	93109
<b>Santa Barbara City College Extension</b> Health Interpreter	Santa Barbara	93105

**Appendix D5.**

*Ventura County: Institution and Program Listing*

<b>Institution and Program</b>	<b>City</b>	<b>Zip</b>
<b>California Lutheran University</b> Mental Health Counselor (Master’s level Psychology)	Thousand Oaks	91360
<b>Career Care Institute – Ventura</b> Licensed Vocational Nurse	Ventura	93003
<b>Cet – Oxnard</b> Medical Assistant	Oxnard	93030
<b>International College of Business and Technology</b> Licensed Vocational Nurse	Calabasas	91320
<b>Oxnard Adult School – Camarillo Vocational Center</b> Licensed Vocational Nurse	Camarillo	93010
<b>Oxnard College</b> Dental Hygienist, Substance Abuse/Addiction Counselor Human Services Programs	Oxnard	93033
<b>Pacific Coast Trade School</b> Medical Assistant	Oxnard	93033
<b>Simi Valley Adult School</b> Licensed Vocational Nurse, Pharmacy Technician	Simi Valley	93065
<b>Ventura Adult and Continuing Education</b> Medical Assistant, Pharmacy Technician	Ventura	93003
<b>Ventura College</b> EMT Paramedic, Human Services Programs	Ventura	93003



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