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SACRAMENTOWORKS

**SACRAMENTO WORKS, INC.
PLANNING/OVERSIGHT COMMITTEE**

Date: Wednesday, September 21, 2016

Time: 8:30 a.m.

Location: SETA - Board Room
925 Del Paso Blvd., Suite 100
Sacramento, CA 95815

AGENDA

1. Call to Order/Roll Call
2. **Consent Item:** Approval of the August 17, 2016 Minutes
3. **Action Item:** Ratification of Final Negotiated Local Workforce Development Area Performance Goals, PY2016-17 and 2017-18
4. **Action Item:** Discussion and Approval of WIA/WIOA “Stretch” Performance Goals
5. **Action Item:** Discussion and Approval of WIOA High-growth Industry Sectors and Occupational Clusters
6. Public Input
7. Adjournment

Planning/Oversight Committee Members: Anette Smith-Dohring (Chair), Janet Bard, Larry Burkhardt, Lisa Clawson, Mike Dourgarian, Ann Edwards, Kathy Kossick, Matt Legé, Frank Louie, Dr. Jamey Nye, Jay Onasch

DISTRIBUTION DATE: WEDNESDAY, SEPTEMBER 14, 2016

Sacramento Works, Inc.
Planning/Oversight Committee
Minutes/Synopsis

(Minutes reflect the actual progression of the meeting.)

SETA Board Room
925 Del Paso Blvd., Suite 100
Sacramento, CA 95815

Wednesday, August 17, 2016
8:30 a.m.

1. **Call to Order/Roll Call**: Ms. Smith-Dohring called the meeting to order at 8:32 a.m.; a quorum was established.

Members Present: Janet Bard, Matt Legé, Frank Louie, Kathy Kossick, Anette Smith-Dohring

Members Absent: Lisa Clawson, Ann Edwards, Jay Onasch

Others present: Elizabeth Bosley, Terri Carpenter, Bill Walker, Julie Davis-Jaffe, Michelle O’Camb, Roy Kim, Edward Proctor, Ralph Giddings, Cara Welch, Jamey Nye, and Larry Burkhardt

2. **Consent Item**: Approval of the May 18, 2016 Minutes

The minutes were reviewed; no questions or corrections.

Kossick, second/Louie, to approve the May 18 minutes.
Voice Vote: Unanimous approval.

4. **Action Item**: Discussion and Approval of WIA/WIOA “Stretch” Performance Goals

Mr. Roy Kim suggested taking action on this item after going over the third quarter dashboard.

The Committee requested information on vulnerable populations served, credential rates and WIOA goals.

5. **Information Item**: Sacramento Works Performance Report

Mr. Giddings stated that the report was modified to show trends of performance over the past five years. Mr. Giddings reminded the committee that “Intensive Services” are provided to people actually enrolled in the program.

Mr. Giddings stated that this grantee has exceeded or met each of the following measures under Adult performance: entered employment, employment

retention, and average 6 months earnings. To meet the performance measure means to be within 80% of the goal.

Ms. O’Camb stated that the goal is determined by the resource allocation plan and the targeted funding.

Mr. Onasch inquired about intensive services and why would the goals not be met for the target for intensive services? What is impeding meeting that goal? Ms. O’Camb stated that there are limited resources; fewer dollars were allocated for training so we are asking partners to leverage services. If a disabled customer comes in, they could be co-enrolled in WIOA Title I and Department of Rehabilitation. Ms. Davis-Jaffe stated that customers coming in may receive different services so enrollment should increase over the next year. If they receive intensive staff services, that will count toward meeting the goal. Mr. Kim stated that it also includes a very heavy number of CalWORKs customers. Part of the reason is a reduction in the subsidized services provided.

Mr. Burkhardt inquired why the average wage is lowered. Ms. Kossick replied that we will serve anyone that needs services but for many people in the pipeline this may be their first job. Mr. Kim stated that the majority of the people we serve are not well educated; we tend to serve the first time employed and lower educated customers.

Mr. Onasch asked how providers are oriented that part of the mission is to help the person to get employment entry level in a career path. Is it in writing or part of the policy? Mr. Kim replied that it is one of our mandates and longer-term interventions for customers is one of the strategies. Mr. Onasch wants to make sure the partners have similar goals.

If DOL decides that we enroll all people, then something as simple as printing a resume would assist in meeting the performance standards.

Ms. O’Camb stated that we also have a priority of service requirement where we are mandated to serve people regardless of our funding levels. There is a bigger push for regional planning under the WIOA.

Mr. Giddings stated that the goals that we do have are negotiated with the state and aligned with the state goals.

Mr. Kim stated that these are still WIA measures so the WIOA measures will be slightly different but there are significant increases.

Ms. O’Camb stated that staff was informed that the state intends to have all negotiated numbers for each region by the end of September. The regional plan and the local plan must align.

Dr. Nye stated that Governor Brown approved a bill that requires regional collaboration and working with local workforce boards and community colleges. Los Rios received \$5.1 million for three years. There will be \$6.9 in regional money with 15 colleges accessing that money. The proposals have to align with the chosen sectors. This is a new planning process and there is a strong interest across the state to have the community colleges work with their local workforce boards. It is critical for all partners to make sure we are in alignment with the private sector and the local workforce board.

The Youth Measures were reviewed. Mr. Onasch spoke of the number of disabled youth served. He asked if there were statistics on certificate programs and what kind of skills were acquired during training. Ms. Carpenter replied that the detail is included in the service provider's files.

Mr. Onasch stated that transportation is critical to disabled customers; if people cannot get to a training site or 'robust' employment site, customers will not get a job. There's also concern in the community that Regional Transit is decreasing the number of bus stops.

Mr. Walker stated that the employer services data included in the report is not automated, it is collected by staff. It is difficult to collect this data from employers; most just want the services and then move on.

Ms. Smith-Dohring stated that maybe CWA needs to go to the state board to settle the issue of performance measures. She requested to have someone reach out to Bob Lanter to move it forward.

4. **Action Item:** Discussion and Approval of WIA/WIOA "Stretch" Performance Goals (continued)

Ms. Smith-Dohring stated that some of the things discussed at this meeting will be for the next five years. She asked members if there were any areas that we want to 'stretch? Once this committee decides what the stretch goals are, they will go to the board for approval.

Mr. Kim urged the committee not to choose earnings since the way the data will be reported will be substantially different under WIOA.

Mr. Onasch would like to nudge each of the Local Workforce Development Boards to have a stretch goal for the persons with the most severe disabilities. Access alone is a big issue and he would like to have this increased. Ms. O'Camb stated that we are already tracking services to individuals with disabilities under SETA's Disability Employment Initiative and Accelerator grants, and will be measured under the grants against the standard WIOA indicators, as well as on increases on ticket assignments for SSI or SSDI, and increases in the numbers of individuals with disabilities served within our system.

Ms. Smith-Dohring stated that we may not have the data we need to identify the stretch goal for special populations. Also, members need to know what the data will look like under WIOA.

Mr. Louie stated we need more information on which is a priority and whether a 2% increase of the goal would have a major effect.

Mr. Larry Burkhardt inquired if this organization is charged with job placement of unemployed or lower end, or are we also mandated to position the community to train the workforce for today and tomorrow.

This item was tabled; no action taken.

5. **Action Item:** Discussion and Approval of WIOA High-Growth Industry Sectors and Occupational Clusters

Ms. Elizabeth Bosley stated that LMID did a study of this county as well as another study for the nine county regional area. This is the only study that included government sector data. They identified 11 clusters that are made up of several sectors.

Ms. Bosley stated that the report will show emerging and declining clusters. If there is any particular cluster the committee wants to study she can provide a list of employers.

Dr. Nye stated that this report utilizes historical data; there have been some more recent studies on industry growth based on future projections. He would love to have an opportunity for the Center of Excellence to show the sectors community colleges have to align with. He also suggested utilizing the Next Economy clusters. Ms. Kossick stated that we need to get every piece of data in the region in order to develop our clusters.

Mr. Burkhardt stated that the city has a subscription service that can provide ZIP code or regional data. They have industry sector, wage trends, and he offered to provide that information. This data would be available by county or by region. Ms. Smith-Dohring requested the regional data and asked committee members to send pertinent reports to the Clerk. Reports will be reviewed at the September 21 meeting and will set the direction of the board; this conversation is crucial to the forward movement of the region.

6. **Public Input:** No comments.

7. **Adjournment:** The meeting was adjourned at 9:52 a.m.

ITEM 3 – ACTION

RATIFICATION OF FINAL NEGOTIATED LOCAL WORKFORCE DEVELOPMENT AREA PERFORMANCE GOALS, PY 2016-17 AND 2017-18

BACKGROUND

Under WIOA Section 116(c), the LWDBs, the chief elected official, and the Governor shall negotiate and reach agreement on the local levels of performance for the primary indicators.

On August 3, 2016, the State of California, Employment Development Department (EDD) and the California Workforce Development Board (CWDB) released draft Directive WSDD-149, Final State Level Wagner-Peyser Act (W-PA) and Workforce Innovation and Opportunity Act (WIOA), Title I, and Proposed LWDA Performance Goal Negotiations for Program Years (PY) 2016-17 and 2017-18. The draft directive published the final state level W-PA and WIOA Adult, Dislocated Worker, and Youth program performance goals, and provided guidance to Local Workforce Development Area (LWDA) on negotiating local performance goals.

The draft directive identified the 14 Regional Planning Units (RPUs) as responsible for negotiating local area and regional performance goals and indicated that all local area negotiations were to be completed no later than September 30, 2016.

As a result, staff prepared PY 2016-17 and 2017-18 proposed local area performance goals consistent with client populations served and the local economic landscape, and based on performance data provided by the EDD, Workforce Services Division (WSD), Program Reporting and Analysis Unit. In developing proposed levels of performance, the draft directive provided the following guidance:

1. Local Areas will be held accountable for local level negotiated performance. However, PY 2016-17 negotiated performance will not be used for performance accountability purposes.
2. Local areas must negotiate as an RPU, and performance levels established will be used as benchmarks for future performance accountability.
3. Local areas within an RPU must provide a data-driven rationale for how local area goals are established.
4. RPUs are not held accountable to negotiated goals, but local areas should consider an RPU negotiated level of performance in developing local area goals.
5. State level goals are a baseline for negotiations and should be considered as a point of comparison for how local areas and RPUs propose goals.
6. The state level credential attainment goals for Adult, Dislocated Worker, and Youth are being proposed as local area goals for PY 2016-17.
7. Local areas may select any number of representatives from the RPU to negotiate goals.

ITEM 3 – ACTION (continued)

Page 2

8. An RPU must provide a single point of contact for communication and coordination with the state board.
9. EDD performance and reporting staff will be invited to attend all performance negotiations.

The objective of the negotiation process is to define local performance targets that are aligned with current economic indicators, reflect local area service strategies and achievements, while at the same time building on the overall system goal of continuous improvement for system customers, providing the greatest return on investments, and enabling the regional planning implementation of WIOA by providing an industry-relevant skills attainment framework for individuals with barriers to employment

On September 2, 2016, SETA staff, together with staff from the other three workforce development areas comprising the Capital Region, entered into negotiations and reached agreement with the State on local WIOA performance goals for PYs 2016-17 and 2017-18. (*See the attached State and Local WIOA Performance Goals for PYs 2016-17 and 2017-18.*)

RECOMMENDATION

Ratify the final Local Workforce Development Area (LWDA) WIOA, Title I, Adult, Dislocated Worker, and Youth program performance goals for PY 2016-17 and 2017-18.

ITEM 4 - ACTION

DISCUSSION AND APPROVAL OF WIA/WIOA "STRETCH" PERFORMANCE GOALS

BACKGROUND:

Since the May 20, 2015 Planning/Oversight Committee Meeting, there has been an ongoing discussion regarding establishing performance targets (i.e., "stretch" goals) that would serve as internal performance targets that are in addition to the negotiated performance benchmarks established by the State Employment Development Department for the Sacramento Workforce Development Area.

The Committee's discussions are summarized as follows:

- Review of historical performance over the past five years; all goals met or exceeded in two of the last five years
- Focus on one or two key performance metrics, such as Earnings and/or Entered Employment
- Consider impact on vulnerable populations with multiple barriers to employment
- Incentivize performance, such as bonus points on proposals submitted in response to Requests for Proposals
- Board recognition of high performing service providers

At its August 17, 2016 meeting, the Committee requested additional performance information on vulnerable populations, credential attainment rates and WIOA performance goals.

RECOMMENDATION:

Review performance information, continue to discuss the establishment of internal performance targets (i.e., "stretch" goals) and take appropriate action.

ITEM 5 - ACTION

DISCUSSION AND APPROVAL OF WIOA HIGH-GROWTH INDUSTRY SECTORS AND OCCUPATIONAL CLUSTERS

BACKGROUND:

Historically, the Sacramento Works, Inc., Local Workforce Development Board (LWDB), has invested in a sector approach by targeting training resources toward high-growth industry sectors/occupational clusters that have the greatest potential to result in career pathways that ensure self-sufficiency.

The following current priority sectors/clusters, established under the Workforce Investment Act (WIA), were last revised in June 2013:

- Health Services
- Transportation, Production and Manufacturing
- Installation, Maintenance and Repair
- Information and Communications Technology
- Construction and Clean Energy
- Administrative and Support Services
- Agriculture, Food and Hospitality

The priority sectors/clusters are consistent, and significantly overlap, with the Next Economy's six core business clusters, which were recently researched and refreshed with post-recession data. "Education and Knowledge Creation" is the only Next Economy core business cluster that is not included in the current list of LWDB-approved priority sectors/clusters.

At its August 17, 2016 meeting, the Committee reviewed a report from the Labor Market Information Division (LMID) of the Employment Development Department, based on data from 2010-2015, showing industry sectors/clusters in the Sacramento area and their potential for increased wages and career opportunities.

The Committee requested additional information including the Next Economy Cluster report and economic profile data.

RECOMMENDATION:

Review and discuss the occupational and economic data, and approve a recommendation to the full Sacramento Works Board regarding the establishment of WIOA high-growth industry sectors/occupational clusters.



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KEY FINDINGS

NEXT ECONOMY CLUSTER RESEARCH

Workforce Needs Assessment SACRAMENTO CAPITAL REGION



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August 2016

Prepared by: Centers of Excellence,
Los Rios Community College District

Valley Vision

Burris Service Group

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PROJECT DESCRIPTION

Starting in 2008, the six-county Sacramento Capital region (El Dorado, Placer, Sacramento, Sutter, Yolo and Yuba counties) was rocked by the global recession, losing 10% of the region's jobs. In response, regional leaders initiated Next Economy, an action plan to accelerate job creation and new investment in six high-growth business (industry) clusters. Valley Vision, a regional civic leadership organization, managed the three-year Next Economy design, research and implementation process on behalf of a wide range of private and public sector partners.

As of late 2015, after a lagging recovery, the region's economy is picking up momentum, with the unemployment rate decreasing while job growth is accelerating. Valley Vision received funding from JPMorgan & Co. to better understand how the region's key growth industry clusters have changed since the original Next Economy research was conducted in 2012, and what new opportunities have emerged. Valley Vision partnered with the Los Rios Center of Excellence and the Burris Service Group on this effort.

Cluster research is a widely accepted standard of practice for developing regional prosperity strategies to address multiple facets of a region's complex economy. Industry clusters reduce operating costs by shortening supply chains; increasing the flow of information regarding new business opportunities; concentrating workforce training needs in select occupations; and speeding up the identification of gaps in products or services.¹ Firms in identified clusters also may have a reduced risk of failure, as these firms are better supported by the supply chain and can respond more rapidly to shifts in the marketplace.

To support regional workforce planning and strategy development, six clusters were identified as critical to the region's economy. Each study was reviewed in cluster-specific forums and additional data was collected from employer feedback. This data can be found in the proceedings reports on Valley Vision's website. The cluster research, along with employer feedback, was used to develop a regional action plan. As announced at the May 3rd Workforce Summit, Valley Vision is leading the action plan implementation process which will start Fall 2016.

This report presents the key findings for the six industry clusters in the following areas:²

- **Advanced Manufacturing** is a process that integrates the coordinated use of information, automation, software, sensing and networking to improve the efficiency and reduce costs of manufacturing. Although advanced manufacturing methods may be utilized by any manufacturing industry, high use of these methods tends to cluster in six subsectors: Aerospace, Chemical, Computers/electronics, Machinery, Plastics Products and Transportation Manufacturing.
- **Clean Economy** represents six subsectors: Energy and Resource Efficiency, Renewable Energy, Sustainable Farming, Advanced Transportation, Environmental Compliance and Recycling/Waste Reduction. Since the Clean Economy includes all economic activity that provides environmental benefit, industries in this cluster have some overlap with industries in other clusters. Consequently, to prevent over counting of employment, the Clean Economy data was not included in this report.
- **Education and Knowledge Creation**, the second largest cluster, includes industries and establishments that provide systematic information or instruction for the purpose of knowledge creation or learning. Within the cluster, there are five subsectors: Private Education Institutions, Public Education Institutions, Education Support Services, Publishing and Broadcasting.
- **Food and Agriculture** includes interdependent firms in the food value chain. The cluster is composed of four subsectors: Production, Processing, Distribution and Support.³

¹ Cluster Manufacturing: A Supply Chain Perspective.

² Visit valleyvision.org or coeccc.net to access the full reports.

³ Sacramento Area Council of Governments (SACOG) is the principal researcher for the Food and Agriculture cluster study.

- **Information and Communications Technologies (ICT)** is the convergence of computer networking and telecommunications. The ICT umbrella organizes technologies related to telecommunications, computing, networks and other high-tech fields. The cluster is composed of four subsectors: Computer and Electronic Market Retailers/Wholesalers; System Programming, Design, Management and Training Services; System Repair and Maintenance Services; and Telecommunication/Data Processing Centers.
- **Life Sciences and Health Services**, the largest clusters in the region, offers well-paying jobs for thousands of people. This cluster includes five subsectors: Hospitals, Ambulatory Health Care Services, Nursing and Residential Care Facilities, Social Assistance and Life Sciences.



ECONOMIC OVERVIEW

In the **Sacramento Capital region**, the residential population numbered more than 2.4 million in 2014, with an additional 87,000 residents projected by 2019. Over the next ten years (2014–2024), the region’s population is expected to get older. The 60-years-and-older cohort is projected to increase by 28%, while the working age cohort, 20–59 years, is expected to decline by 2%. Population growth and the aging workforce will increase pressure for a skilled and talented pipeline of newly trained workers that can meet the region’s changing economic conditions.

In addition to population demographics, the size and characteristics of a region’s labor force are important considerations in workforce planning. Labor force, employment and unemployment data are based upon “place of residence” – where people live, regardless of where they work. Individuals who have more than one job are counted only once. These data differ from industry employment estimates that are “place of work” based – where the employer/workplace is located, regardless of where the employee resides.

Since 2011, the Sacramento region labor force has increased in size by 17,100 persons, and total employment increased by nearly 79,500 persons (Exhibit 1). In just four years, the unemployment rate dropped by more than five percentage points, suggesting a complete recovery from the recent economic recession.

Exhibit 1. Labor Force and Unemployment Rate, Sacramento Region⁴

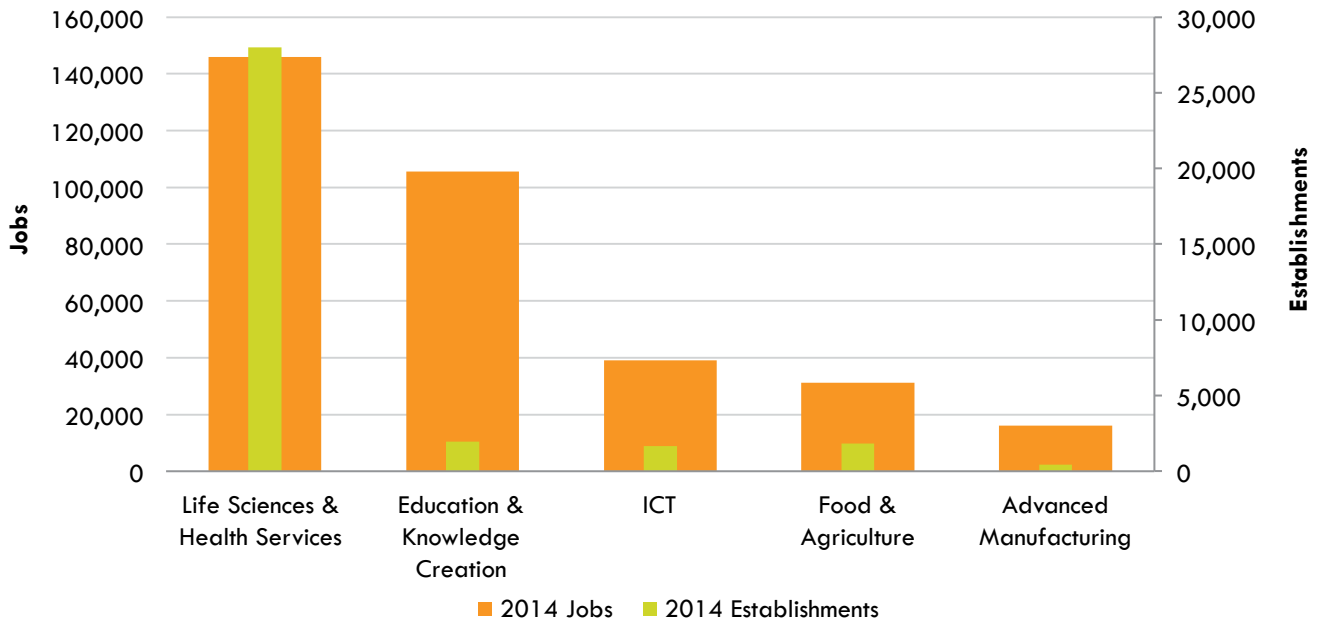
	2011	2014	2015	2011–2015 Change
Labor Force	1,115,000	1,122,400	1,132,100	17,100
Employment	977,700	1,038,400	1,057,200	79,500
Unemployment	137,300	84,000	75,000	-62,300
Unemployment Rate	12.3%	7.5%	6.62%	-5.68%

⁴ EMSI 2015.2

LABOR MARKET DATA

The Next Economy clusters represent one-third (32%) of all the jobs in the region and two-fifths (43%) of all the establishments (Exhibit 2). Health Services & Life Sciences is the largest cluster in terms of total jobs and establishments. Education & Knowledge Creation is a close second in terms of total jobs, but has relatively few establishments. This indicates that Education & Knowledge Creation is dominated by organizations with large numbers of employees. In fact, the average number of workers per establishment is 53, 10 times more than the Health Services & Life Sciences cluster and three times more than the Food & Agriculture cluster.

Exhibit 2. Establishments and Jobs by Cluster⁵



The bubble chart below compares the concentration of cluster employment to the projected five-year growth rate in the region, where the size of the bubble indicates the total number of jobs for each industry cluster. Concentration of employment is measured by location quotient analysis which compares the total employment in a region relative to the total employment in a larger area, in this case, California. Clusters and industries with location quotients higher than 1 (usually LQ 1.25 or higher) imply that the cluster is producing more of the product or services than is consumed by local residents. The excess products and services are typically exported outside of the region, which increases the region’s overall wealth and competitive position.

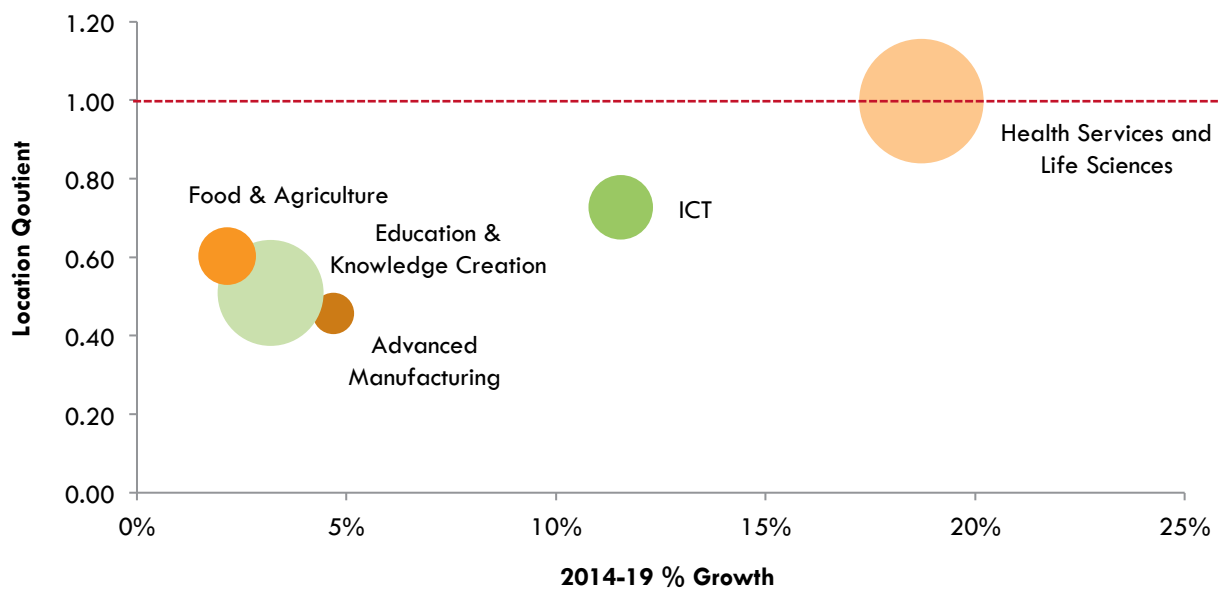
All of the clusters, except Life Sciences and Health Services, have a location quotient below 1, indicating a lower than average concentration of employment (Exhibit 3). The Health Services and Life Sciences cluster has a location quotient of 1.00, indicating average employment levels. Low to average location quotients indicate that the Next Economy clusters are not likely to outperform other regions in the state, unless there is strategic action that increases the region’s competitive position in these areas.

All clusters had positive growth rates with Life Sciences and Health Services having the largest growth rate and ICT with the second largest growth rate.

⁵ EMSI 2015.2



Exhibit 3. Projected Growth vs. Location Quotient by Cluster⁶

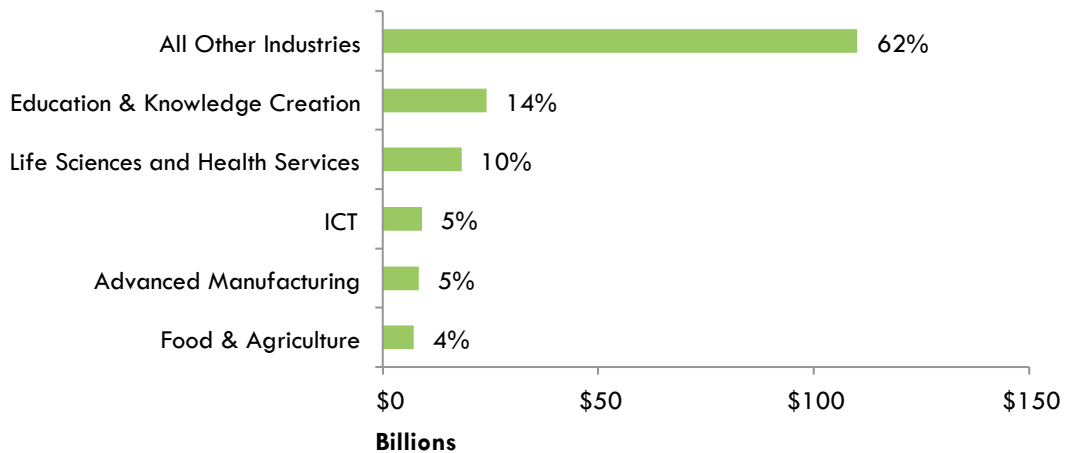


⁶ EMSI 2015.2

ECONOMIC IMPACT

Economic impact provides a quantitative method to estimate the total economic benefit from a project, or in this case, an industry cluster. In other words, it is the “ripple effect” of all economic activities resulting from that cluster. Exhibit 4 displays each cluster’s direct impact on the economy, excluding indirect and induced impacts for comparison purposes. The Next Economy clusters generate nearly 38% of the region’s total domestic output, approximately \$67 billion.

Exhibit 4. Direct Economic Impact by Cluster⁷



⁷ IMPLAN 2013

TRENDS BY CLUSTER

Demographic shifts, global competition, technological innovations and other environmental conditions have a significant impact on the region’s economy. Below is a summary of some of the most significant trends impacting each cluster.

Industry Cluster Opportunities, Challenges & Trends

Cluster	Opportunities, Challenges & Trends
Advanced Manufacturing	<p>The manufacturing sector has had a tumultuous history in the Sacramento Capital region. To encourage growth, the Advanced Manufacturing cluster must address a variety of challenges, from navigating a complex regulatory environment to developing strategies to compete with low-cost economies. National, state and local legislators can support the cluster by developing and adopting policies that eliminate barriers to success, creating incentives for local production and reducing supply chain leakage.</p>
Clean Economy	<p>Clean establishments provide products and/or services that are aimed at utilizing resources more efficiently, providing renewable sources of energy, lowering greenhouse gas emissions, or otherwise minimizing environmental impact. Legislation and policy continue to drive growth in this cluster.</p>
Education & Knowledge Creation	<p>Optimistic hiring forecasts, increases in per-pupil spending and changing student enrollment projections are expected to influence demand for teachers and education support professions.</p>
Food & Agriculture	<p>California is the fourth largest agricultural economy in the world and the Sacramento Capital region is a vital part of that economy, with some of the most productive farmland on earth. Some of the region’s agricultural assets include a world-renowned agricultural institution (UC Davis), food entrepreneurs, favorable climate, local water supply and engaged policy makers.</p>
Life Sciences & Health Services	<p>Several factors are transforming the Life Sciences and Health Services cluster. At the regional level, demographic factors such as a growing and aging population are creating demand for expanded health care services. At the national level, the Patient Protection and Affordable Care Act (ACA) contains provisions that are increasing demand for health care services and changing the way services are delivered.</p>
Information & Communication Technologies	<p>The life cycle of advancements in information and communication technologies (ICT) has been developing exponentially rather than in a sequential, linear fashion and is projected to continue in this way. Because technology innovations are progressing at such a rapid pace, businesses are challenged to balance their technological agility by adopting new computing platforms, software, enterprise applications and devices while continuing to drive growth and achieve productivity. These factors are changing skills required of workers and the demand for new workers.</p>

OCCUPATIONS IN DEMAND



Staffing patterns were utilized to identify the top occupations in each cluster. Inclusion criteria included: postsecondary education/training and annual job openings. The projected annual demand for these occupations was compared to the region's related training supply to identify potential misalignments between the education system and regional workforce needs. Exhibit 5 displays the occupations with the most job openings and limited training supply in the region.

Exhibit 5. Occupations in Demand by Cluster

Advanced Manufacturing:	machinist, computer-controlled machine tool operators, welders and first-line supervisors of production/operating workers
Clean Economy:	engineers and sales representatives*
Education & Knowledge Creation:	elementary and secondary teachers and training/development specialists
Food & Agriculture:	food scientists, control processing technicians, mechanics and farmers
Health Services & Life Sciences:	registered nurses, EMTs/paramedics and health information technicians
ICT:	database administrators, network administrators, security professionals, and software development specialists














































*Labor market information is not available for these occupations. However, clean economy employers indicated that it is difficult to find qualified applicants for these positions.



PUBLIC EDUCATION INSTITUTIONS

In the Sacramento Capital Region, there are seven community colleges and two public universities that offer training programs that support the Next Economy clusters (Exhibit 6). In addition, there are several private education institutions and private universities that offer programs. Visit the individual reports for a detailed listing of existing training programs offered by public and private education institutions.

Exhibit 6. Public Education Institutions with Educational Programs by Cluster

	Advanced Manufacturing	Clean Economy	Education & Knowledge Creation	Food & Agriculture	Health Services & Life Sciences	ICT
American River College						
Cosumnes River College						
CSU - Sacramento						
Folsom Lake College						
Sacramento City College						
Sierra College						
UC - Davis						
Woodland College						
Yuba College						

NEXT STEPS

Valley Vision, along with Center of Excellence and other partners, conducted forums with the Next Economy cluster employers to review each cluster’s findings, high priority occupations and skills gaps that could be addressed through a concerted cluster workforce action plan. Valley Vision compiled a summary of the proceedings as well as an action plan for each cluster, which can be found on Valley Vision’s website.

MORE ABOUT...

More About The Centers of Excellence

The Centers of Excellence (COE) for Labor Market Research deliver regional workforce research and technical expertise to California community colleges for program decision making and resource development. This information has proven valuable to colleges in beginning, revising, or updating economic development and Career Technical Education (CTE) programs, strengthening grant applications, assisting in the accreditation process, and in supporting strategic planning efforts.

The Centers of Excellence Initiative is funded in part by the Chancellor's Office, California Community Colleges, Economic and Workforce Development Program. The Centers aspire to be the leading source of regional workforce information and insight for California community colleges. More information about the Centers of Excellence is available at www.coecc.net.

For more information on this study, contact:

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This study was conducted with the support of JPMorgan Chase & Co. In addition, this study was supported by Economic and Workforce Development funds awarded by the Chancellor's Office, California Community Colleges. It was produced pursuant to grant agreement number 15-305-001.

More About Valley Vision

Since 1994, Valley Vision's work has driven transformative change and improved lives across Northern California. An independent social impact and civic leadership organization headquartered in Sacramento, Valley Vision strengthens our communities through unbiased research, boundary-crossing collaboration and change leadership. Our work improves overall quality of life and creates the conditions for economic prosperity and community health and vitality. More information about Valley Vision is available at valleyvision.org.

More About Burris Service Group

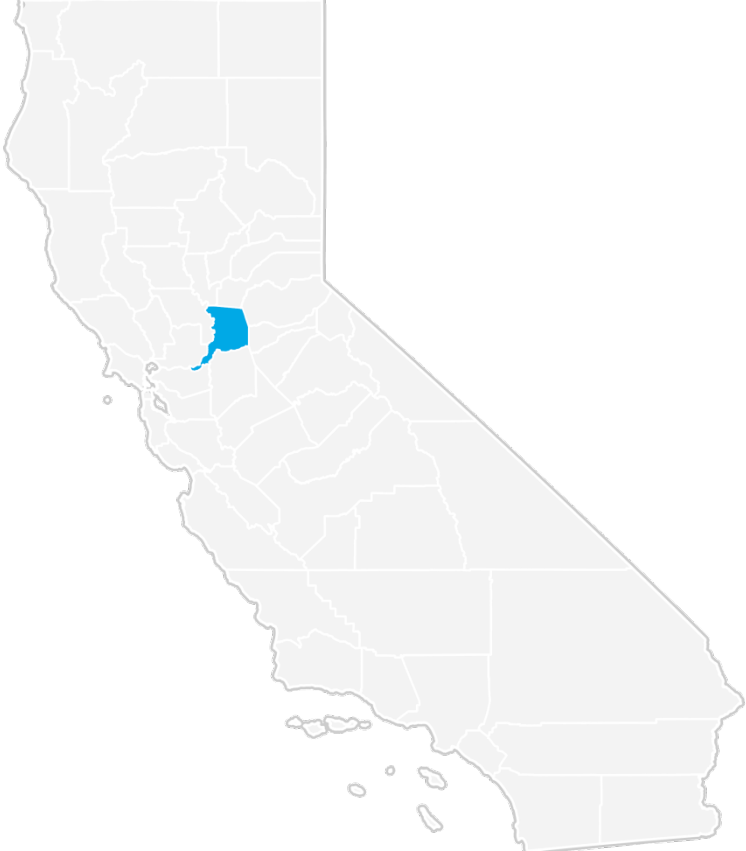
The Burris Service Group (BSG) is a full-service consulting practice providing expertise in economic development, strategic economic research, real estate site strategy, management, and institutional growth. The company was established based on the clear need that advisory services be delivered in an "action-oriented" form. The founder of BSG, Robert Burris, brings to his clients an active local and international network of professionals, as well as 20 years of experience in economic development, market and economic analysis, commercial real estate information, corporate sales, and consulting.



City of
SACRAMENTO

Economic Development

Economic Overview
Sacramento County, California





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Demographic Profile

In 2015, the population in Sacramento County, California was 1,501,335. Between 2005 and 2015, the region's population grew at an annual average rate of 1.0%.

The region has a civilian labor force of 712,617 with a participation rate of 63.1%. Of individuals 25 to 64 in Sacramento County, California, 28.7% have a bachelor's degree or higher which compares with 30.9% in the nation.

The median household income in Sacramento County, California is \$55,615 and the median house value is \$236,500.

Summary ¹						
	Percent			Value		
	Sacramento County, California	California	USA	Sacramento County, California	California	USA
Demographics						
Population ²	—	—	—	1,501,335	39,144,818	321,418,820
Population Annual Average Growth ²	1.0%	0.9%	0.8%	14,052	331,688	2,590,222
Median Age ³	—	—	—	34.8	35.2	37.2
Under 18 Years	25.6%	25.0%	24.0%	363,053	9,295,040	74,181,467
18 to 24 Years	10.1%	10.5%	9.9%	143,530	3,922,951	30,672,088
25 to 34 Years	14.6%	14.3%	13.3%	206,646	5,317,877	41,063,948
35 to 44 Years	13.5%	13.9%	13.3%	190,835	5,182,710	41,070,606
45 to 54 Years	14.1%	14.1%	14.6%	200,536	5,252,371	45,006,716
55 to 64 Years	11.0%	10.8%	11.8%	155,637	4,036,493	36,482,729
65 to 74 Years	5.9%	6.1%	7.0%	83,295	2,275,336	21,713,429
75 Years, and Over	5.3%	5.3%	6.0%	75,256	1,971,178	18,554,555
Race: White	57.5%	57.6%	72.4%	815,151	21,453,934	223,553,265
Race: Black or African American	10.4%	6.2%	12.6%	147,058	2,299,072	38,929,319
Race: American Indian and Alaska Native	1.0%	1.0%	0.9%	14,308	362,801	2,932,248
Race: Asian	14.3%	13.0%	4.8%	203,211	4,861,007	14,674,252
Race: Native Hawaiian and Other Pacific Islander	1.0%	0.4%	0.2%	13,858	144,386	540,013
Race: Some Other Race	9.3%	17.0%	6.2%	131,691	6,317,372	19,107,368
Race: Two or More Races	6.6%	4.9%	2.9%	93,511	1,815,384	9,009,073
Hispanic or Latino (of any race)	21.6%	37.6%	16.3%	306,196	14,013,719	50,477,594
Economic						
Labor Force Participation Rate and Size (civilian population 16 years and over) ⁴	63.1%	63.4%	63.5%	712,617	18,975,006	157,940,014
Armed Forces Labor Force ⁴	0.1%	0.4%	0.4%	1,304	133,870	1,025,497
Veterans, Age 18-64 ⁴	5.8%	4.0%	5.8%	52,674	968,466	11,371,344
Median Household Income ^{3,4}	—	—	—	\$55,615	\$61,489	\$53,482
Per Capita Income ^{3,4}	—	—	—	\$27,071	\$29,906	\$28,555
Poverty Level (of all people) ⁴	18.1%	16.4%	15.6%	258,031	6,115,244	47,755,606

Summary ¹						
	Percent			Value		
	Sacramento County, California	California	USA	Sacramento County, California	California	USA
Households Receiving Food Stamps ⁴	11.8%	8.7%	13.0%	61,508	1,102,641	15,089,358
Mean Commute Time (minutes) ⁴	—	—	—	25.9	27.6	25.7
Commute via Public Transportation ⁴	3.0%	5.2%	5.1%	17,996	859,372	7,157,671
Union Membership ⁵	22.3%	16.4%	11.1%	—	—	—
Educational Attainment, Age 25-64						
No High School Diploma ⁴	12.8%	17.7%	12.0%	99,063	3,582,292	19,939,890
High School Graduate ⁴	21.5%	20.3%	26.5%	165,906	4,103,854	44,000,387
Some College, No Degree ⁴	27.2%	22.4%	21.9%	209,960	4,530,225	36,270,359
Associate's Degree ⁴	9.8%	8.0%	8.7%	75,852	1,620,584	14,487,486
Bachelor's Degree ⁴	19.4%	20.4%	19.7%	150,081	4,131,150	32,646,533
Postgraduate Degree ⁴	9.2%	11.3%	11.2%	71,235	2,279,854	18,533,513
Housing						
Total Housing Units ⁴	—	—	—	558,694	13,781,929	132,741,033
Median House Value (of owner-occupied units) ^{3,4}	—	—	—	\$236,500	\$371,400	\$175,700
Homeowner Vacancy ⁴	1.8%	1.6%	2.1%	5,493	114,943	1,591,421
Rental Vacancy ⁴	6.0%	4.6%	6.9%	14,789	275,877	3,105,361
Renter-Occupied Housing Units (% of Occupied Units) ⁴	44.1%	45.2%	35.6%	229,010	5,708,355	41,423,632
Occupied Housing Units with No Vehicle Available (% of Occupied Units) ⁴	7.8%	7.8%	9.1%	40,463	984,914	10,594,153
Social						
Enrolled in Grade 12 (% of total population) ⁴	1.7%	1.6%	1.4%	24,484	627,396	4,443,768
Disconnected Youth ^{4,6}	2.4%	2.7%	3.3%	1,863	59,427	572,277
Children in Single Parent Families (% of all children) ⁴	37.2%	33.8%	34.7%	127,702	2,969,144	24,388,185
Disabled, Age 18-64 ⁴	11.2%	8.0%	10.2%	100,633	1,916,028	19,703,061
Disabled, Age 18-64, Labor Force Participation Rate and Size ⁴	39.4%	40.5%	41.2%	39,664	776,518	8,119,295
Foreign Born ⁴	20.1%	27.0%	13.1%	291,185	10,290,636	41,056,885
Speak English Less Than Very Well (population 5 yrs and over) ⁴	13.6%	19.1%	8.6%	184,076	6,789,522	25,305,202

Source: [JobsEQ®](#)

1, Census 2010, unless noted otherwise

2, Census 2015, annual average growth rate since 2005

3, Median values for certain aggregate regions (such as MSAs) may be estimated as the weighted averages of the median values from the composing counties.

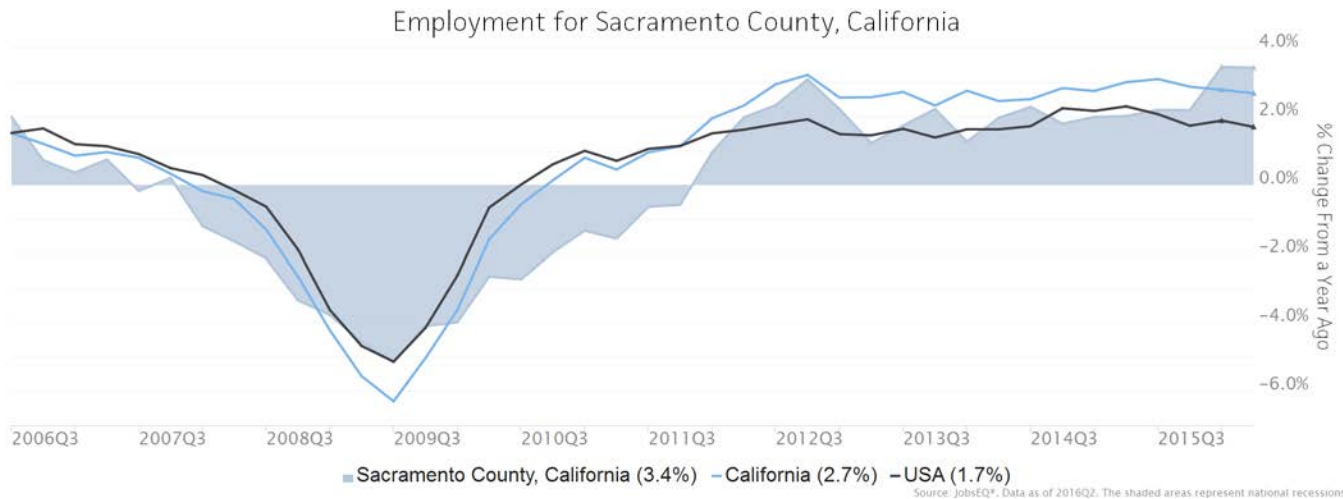
4, ACS 2010-2014

5, 2014; Current Population Survey, unionstats.com, and Chmura; county- and zip-level data are best estimates based upon industry-, MSA-, and state-level data

6, Disconnected Youth are 16-19 year olds who are (1) not in school, (2) not high school graduates, and (3) either unemployed or not in the labor force.

Employment Trends

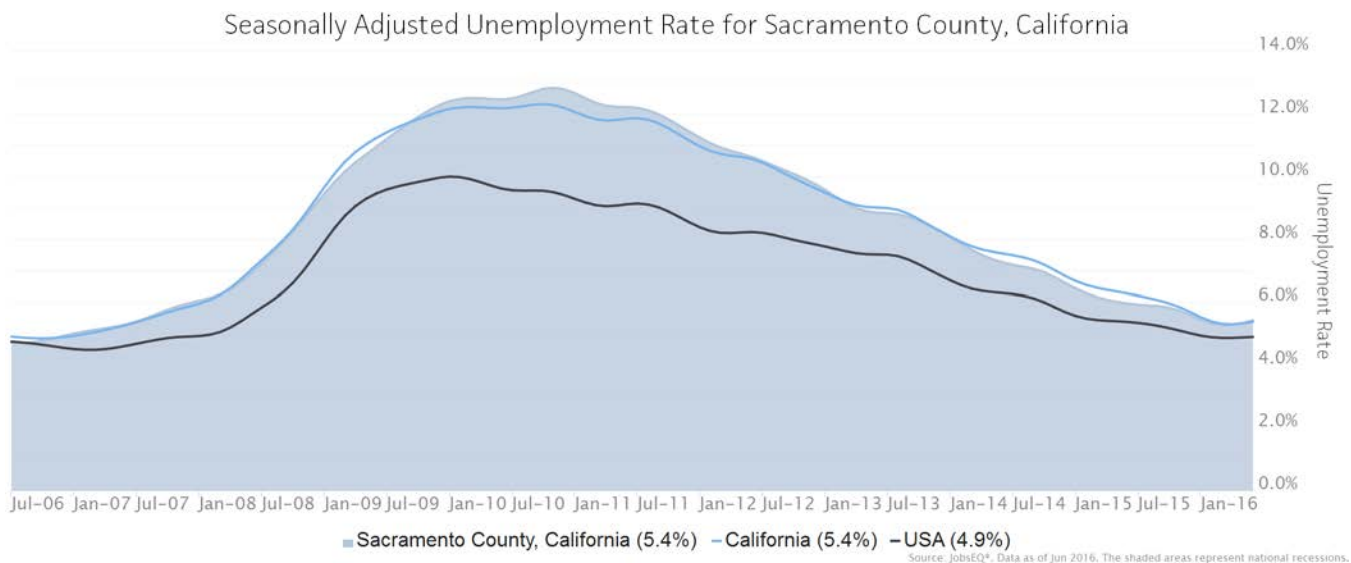
As of 2016Q2, total employment for Sacramento County, California was 676,860 (based on a four-quarter moving average). Over the year ending 2016Q2, employment increased 3.4% in the region.



Employment data are derived from the Quarterly Census of Employment and Wages, provided by the Bureau of Labor Statistics and imputed where necessary. Data are updated through 2015Q4 with preliminary estimates updated to 2016Q2.

Unemployment Rate

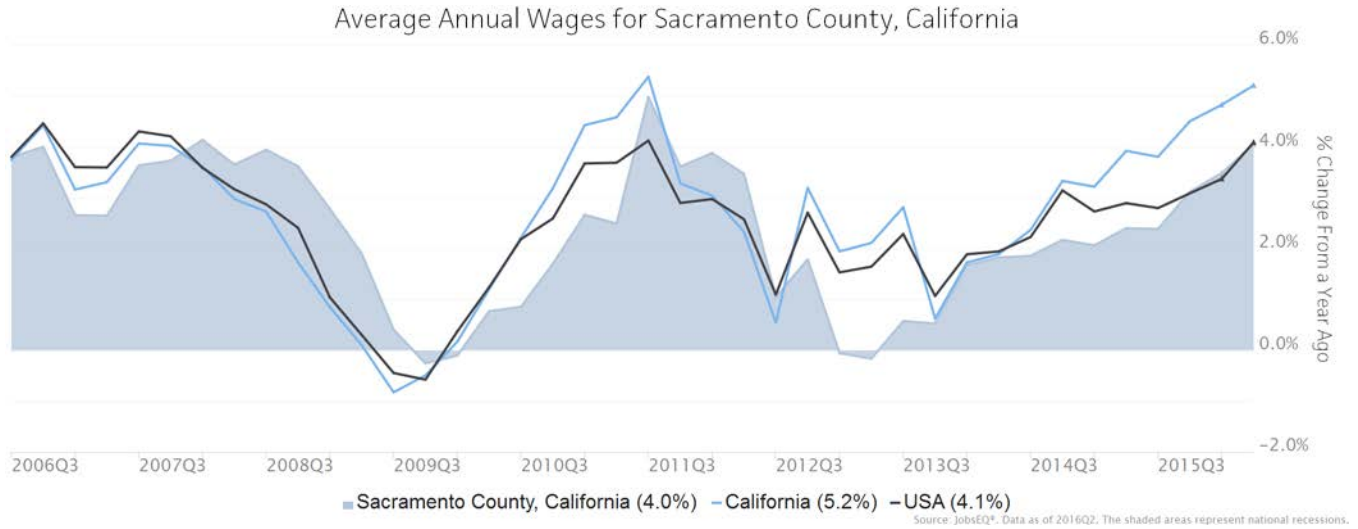
The seasonally adjusted unemployment rate for Sacramento County, California was 5.4% as of June 2016. The regional unemployment rate was higher than the national rate of 4.9%. One year earlier, in June 2015, the unemployment rate in Sacramento County, California was 6.0%.



Unemployment rate data are from the Local Area Unemployment Statistics, provided by the Bureau of Labor Statistics and updated through June 2016.

Wage Trends

The average worker in Sacramento County, California earned annual wages of \$57,244 as of 2016Q2. Average annual wages per worker increased 4.0% in the region during the preceding four quarters. For comparison purposes, annual average wages were \$53,084 in the nation as of 2016Q2.



Annual average wages per worker data are derived from the Quarterly Census of Employment and Wages, provided by the Bureau of Labor Statistics and imputed where necessary. Data are updated through 2015Q4 with preliminary estimates updated to 2016Q2.

Cost of Living Index

The Cost of Living Index estimates the relative price levels for consumer goods and services. When applied to wages and salaries, the result is a measure of relative purchasing power. The cost of living is 19.6% higher in Sacramento County, California than the U.S. average.

Cost of Living Information			
	Annual Average Salary	Cost of Living Index (Base US)	US Purchasing Power
Sacramento County, California	\$58,266	119.6	\$48,713
California	\$63,513	154.6	\$41,094
USA	\$54,152	100.0	\$54,152

Source: [JobsEQ®](#)

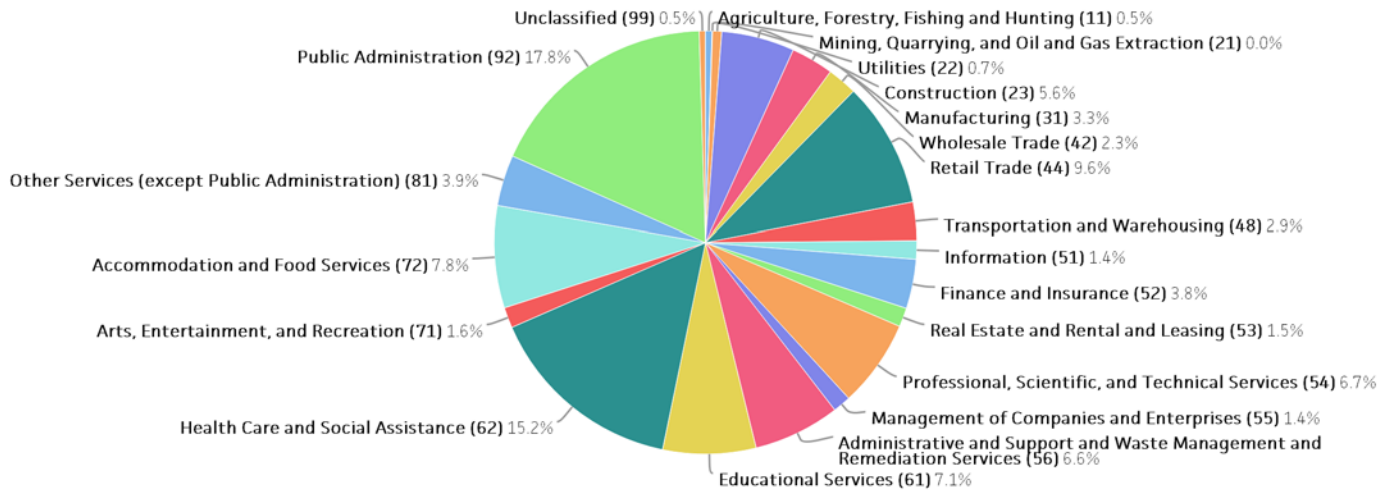
Data as of 2016Q2

The Cost of Living Index is developed by Chmura Economics & Analytics and is updated quarterly.

Industry Snapshot

The largest sector in Sacramento County, California is Public Administration, employing 120,743 workers. The next-largest sectors in the region are Health Care and Social Assistance (102,728 workers) and Retail Trade (64,896). High location quotients (LQs) indicate sectors in which a region has high concentrations of employment compared to the national average. The sectors with the largest LQs in the region are Public Administration (LQ = 3.73), Utilities (1.30), and Health Care and Social Assistance (1.08).

Total Workers for Sacramento County, California by Industry



Source: JobsEQ®, Data as of 2016Q2

Employment data are derived from the Quarterly Census of Employment and Wages, provided by the Bureau of Labor Statistics and imputed where necessary. Data are updated through 2015Q4 with preliminary estimates updated to 2016Q2.

Sectors in Sacramento County, California with the highest average wages per worker are Utilities (\$103,370), Professional, Scientific, and Technical Services (\$90,646), and Manufacturing (\$81,921). Regional sectors with the best job growth (or most moderate job losses) over the last 5 years are Health Care and Social Assistance (+30,463 jobs), Accommodation and Food Services (+10,297), and Construction (+9,666).

Over the next 10 years, employment in Sacramento County, California is projected to expand by 40,590 jobs. The fastest growing sector in the region is expected to be Health Care and Social Assistance with a +1.9% year-over-year rate of growth. The strongest forecast by number of jobs over this period is expected for Health Care and Social Assistance (+21,040 jobs), Professional, Scientific, and Technical Services (+4,819), and Educational Services (+4,329).

		Current			Historical				Forecast		
		Four Quarters Ending with 2016q2			Total Change over the Last 5 Years	Average Annual % Change in Employment 2011q2-2016q2			Over the Next 10 Years		
NAICS	Industry	Empl	Avg. Annual Wages	Location Quotient	Empl	Sacramen to County, California	California	USA	Total Approx Repl Demand	Total Growth Demand	Avg. Annual Growth Percent
11	Agriculture, Forestry, Fishing and Hunting	3,431	\$34,394	0.35	225	1.4%	1.3%	1.0%	1,179	-146	-0.4%
21	Mining, Quarrying, and Oil and Gas Extraction	197	\$78,895	0.06	36	4.2%	-1.0%	-0.4%	49	10	0.5%
22	Utilities	4,760	\$103,370	1.30	127	0.5%	0.2%	0.2%	1,218	42	0.1%
23	Construction	37,756	\$58,738	1.02	9,666	6.1%	5.1%	2.7%	7,739	4,035	1.0%
31	Manufacturing	22,075	\$81,921	0.39	1,424	1.3%	0.7%	1.1%	4,929	-1,658	-0.8%
42	Wholesale Trade	15,374	\$59,261	0.57	745	1.0%	2.0%	1.4%	3,419	408	0.3%
44	Retail Trade	64,896	\$32,214	0.88	5,910	1.9%	1.7%	1.5%	20,286	1,848	0.3%
48	Transportation and Warehousing	19,717	\$52,179	0.71	2,249	2.5%	3.6%	2.4%	5,057	-500	-0.3%
51	Information	9,523	\$74,241	0.70	-2,474	-4.5%	3.0%	0.6%	2,200	-763	-0.8%
52	Finance and Insurance	25,478	\$81,063	0.95	423	0.3%	0.5%	0.9%	6,123	1,269	0.5%
53	Real Estate and Rental and Leasing	9,904	\$49,066	0.86	840	1.8%	1.6%	1.7%	2,252	508	0.5%
54	Professional, Scientific, and Technical Services	45,243	\$90,646	1.02	1,014	0.5%	2.9%	2.5%	9,755	4,819	1.0%
55	Management of Companies and Enterprises	9,172	\$81,782	0.92	198	0.4%	3.5%	3.5%	1,957	193	0.2%
56	Administrative and Support and Waste Management and Remediation Services	44,843	\$35,741	1.02	9,518	4.9%	4.0%	2.9%	10,371	3,518	0.8%
61	Educational Services	48,172	\$50,277	0.86	2,690	1.2%	1.3%	0.4%	10,454	4,329	0.9%
62	Health Care and Social Assistance	102,728	\$57,188	1.08	30,463	7.3%	6.6%	2.3%	21,460	21,040	1.9%
71	Arts, Entertainment, and Recreation	10,702	\$33,404	0.80	224	0.4%	2.5%	2.1%	3,323	580	0.5%
72	Accommodation and Food Services	52,585	\$19,350	0.88	10,297	4.5%	4.2%	3.1%	18,620	1,849	0.3%
81	Other Services (except Public Administration)	26,384	\$36,967	0.88	-13,381	-7.9%	-5.0%	-0.1%	6,670	716	0.3%
92	Public Administration	120,743	\$80,740	3.73	-2,817	-0.5%	0.0%	-0.4%	28,920	-1,752	-0.1%
99	Unclassified	3,175	\$37,397	2.39	1,831	18.8%	15.0%	12.6%	791	190	0.6%
	Total - All Industries	676,860	\$57,244	1.00	59,209	1.8%	2.5%	1.7%	168,613	40,590	0.6%

Source: [JobsEQ®](#)

Employment data are derived from the Quarterly Census of Employment and Wages, provided by the Bureau of Labor Statistics and imputed where necessary. Data are updated through 2015Q4 with preliminary estimates updated to 2016Q2. Forecast employment growth uses national projections adapted for regional growth patterns.

Occupation Snapshot

The largest major occupation group in Sacramento County, California is Office and Administrative Support Occupations, employing 105,644 workers. The next-largest occupation groups in the region are Sales and Related Occupations (60,205 workers) and Food Preparation and Serving Related Occupations (54,047). High location quotients (LQs) indicate occupation groups in which a region has high concentrations of employment compared to the national average. The major groups with the largest LQs in the region are Protective Service Occupations (LQ = 1.96), Community and Social Service Occupations (1.89), and Legal Occupations (1.77).

Occupation groups in Sacramento County, California with the highest average wages per worker are Legal Occupations (\$110,000), Management Occupations (\$108,600), and Healthcare Practitioners and Technical Occupations (\$102,100). The unemployment rate in the region varied among the major groups from 0.9% among Legal Occupations to 10.4% among Farming, Fishing, and Forestry Occupations.

Over the next 10 years, the fastest growing occupation group in Sacramento County, California is expected to be Healthcare Support Occupations with a +1.9% year-over-year rate of growth. The strongest forecast by number of jobs over this period is expected for Healthcare Practitioners and Technical Occupations (+6,647 jobs) and Healthcare Support Occupations (+4,680). Over the same period, the highest replacement demand (occupation demand due to retirements and workers moving from one occupation to another) is expected in Office and Administrative Support Occupations (21,998 jobs) and Food Preparation and Serving Related Occupations (20,642).

Occupation Snapshot in Sacramento County, California														
		Current					Historical				Forecast			
		Four Quarters Ending with 2016q2			2016q2		Total Change over the Last 5 Years	Avg Ann % Chg in Empl 2011q2-2016q2			Over the Next 10 Years			
SOC	Title	Empl	Avg. Annual Wages ¹	LQ	Unempl	Unempl Rate	Empl	Sacramento County, California	California	USA	Current Online Job Ads ²	Total Repl Demand	Total Growth Demand	Avg. Annual Growth Percent
11-0000	Management Occupations	37,222	\$108,600	0.91	955	2.6%	2,322	1.3%	2.1%	1.5%	415	11,506	1,988	0.5%
13-0000	Business and Financial Operations Occupations	40,682	\$72,000	1.23	1,311	3.5%	1,274	0.6%	2.0%	1.6%	332	9,097	2,231	0.5%
15-0000	Computer and Mathematical Occupations	20,064	\$86,300	1.08	566	2.9%	1,176	1.2%	4.0%	2.7%	150	3,123	2,031	1.0%
17-0000	Architecture and Engineering Occupations	13,083	\$88,400	1.15	413	3.4%	394	0.6%	1.4%	1.3%	285	3,340	401	0.3%
19-0000	Life, Physical, and Social Science Occupations	8,476	\$73,500	1.57	299	3.9%	127	0.3%	1.7%	1.1%	20	2,717	532	0.6%
21-0000	Community and Social Service Occupations	20,315	\$53,900	1.89	539	3.0%	1,870	1.9%	4.6%	1.5%	72	4,485	1,520	0.7%
23-0000	Legal Occupations	9,461	\$110,000	1.77	69	0.9%	-284	-0.6%	0.7%	0.2%	23	1,845	288	0.3%
25-0000	Education, Training, and Library Occupations	35,158	\$58,500	0.92	1,245	3.6%	2,015	1.2%	1.5%	0.5%	134	7,738	3,411	0.9%

Occupation Snapshot in Sacramento County, California

		Current					Historical				Forecast			
		Four Quarters Ending with 2016q2			2016q2		Total Change over the Last 5 Years	Avg Ann % Chg in Empl 2011q2-2016q2			Over the Next 10 Years			
SOC	Title	Empl	Avg. Annual Wages ¹	LQ	Unempl	Unempl Rate	Empl	Sacramento County, California	California	USA	Current Online Job Ads ²	Total Repl Demand	Total Growth Demand	Avg. Annual Growth Percent
27-0000	Arts, Design, Entertainment, Sports, and Media Occupations	9,727	\$55,400	0.82	379	3.9%	-100	-0.2%	1.8%	1.2%	155	3,311	148	0.2%
29-0000	Healthcare Practitioners and Technical Occupations	39,933	\$102,100	1.05	632	1.7%	4,368	2.3%	2.4%	1.5%	395	8,988	6,647	1.6%
31-0000	Healthcare Support Occupations	22,473	\$35,400	1.13	1,133	5.1%	5,984	6.4%	6.4%	2.3%	131	5,006	4,680	1.9%
33-0000	Protective Service Occupations	25,693	\$58,600	1.96	1,188	5.0%	-1,074	-0.8%	1.5%	0.8%	19	6,193	374	0.1%
35-0000	Food Preparation and Serving Related Occupations	54,047	\$24,800	0.93	4,926	8.5%	10,159	4.3%	4.1%	3.0%	126	20,642	2,439	0.4%
37-0000	Building and Grounds Cleaning and Maintenance Occupations	20,658	\$30,200	0.85	1,725	7.6%	-4,209	-3.6%	-1.8%	1.0%	75	4,777	1,259	0.6%
39-0000	Personal Care and Service Occupations	34,657	\$25,200	1.29	1,812	5.2%	6,773	4.4%	5.0%	2.2%	134	8,160	4,498	1.2%
41-0000	Sales and Related Occupations	60,205	\$39,200	0.85	3,938	6.3%	3,845	1.3%	1.8%	1.4%	694	19,722	1,967	0.3%
43-0000	Office and Administrative Support Occupations	105,644	\$40,500	1.04	5,980	5.6%	7,025	1.4%	2.3%	1.6%	841	21,998	1,001	0.1%
45-0000	Farming, Fishing, and Forestry Occupations	2,740	\$26,500	0.63	501	10.4%	188	1.4%	1.6%	1.4%	0	870	-115	-0.4%
47-0000	Construction and Extraction Occupations	33,008	\$55,800	1.10	2,380	7.1%	7,039	4.9%	4.3%	2.3%	36	6,269	3,005	0.9%
49-0000	Installation, Maintenance, and Repair Occupations	23,494	\$50,800	0.91	1,343	5.5%	2,273	2.1%	2.5%	1.7%	130	5,865	1,210	0.5%
51-0000	Production Occupations	23,767	\$39,500	0.57	1,913	7.2%	2,866	2.6%	1.7%	1.6%	59	6,188	-54	0.0%
53-0000	Transportation and Material Moving Occupations	36,352	\$37,300	0.80	3,241	8.2%	5,178	3.1%	3.3%	2.3%	104	9,461	1,275	0.3%
00-0000	Total - All Occupations	676,860	\$53,900	1.00	n/a	n/a	59,209	1.8%	2.5%	1.7%	4,330	171,302	40,734	0.6%

Source: [JobsEQ®](http://www.chmuraecon.com/jobseq)

Data as of 2016Q2 unless noted otherwise

Note: Figures may not sum due to rounding.

1. Occupation wages are as of 2015 and should be taken as the average for all Covered Employment

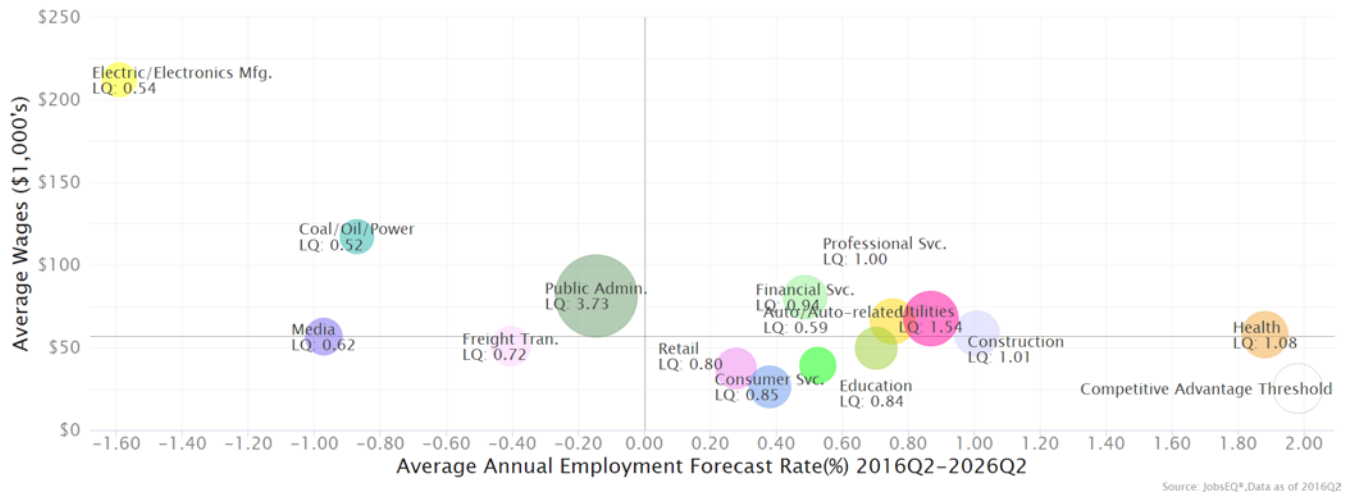
2. Data represent found online ads active within the last thirty days in any zip code intersecting or within the selected region; data represents a sampling rather than the complete universe of postings; the listing search uses keywords that are similar to but not the equivalent of the SOC occupation definitions.

Occupation employment data are estimated via industry employment data and the estimated industry/occupation mix. Industry employment data are derived from the Quarterly Census of Employment and Wages, provided by the Bureau of Labor Statistics and currently updated through 2015Q4, imputed where necessary with preliminary estimates updated to 2016Q2. Wages by occupation are as of 2015 provided by the BLS and imputed where necessary. Forecast employment growth uses national projections from the Bureau of Labor Statistics adapted for regional growth patterns.

Industry Clusters

A cluster is a geographic concentration of interrelated industries or occupations. The industry cluster in Sacramento County, California with the highest relative concentration is Public Admin. with a location quotient of 3.73. This cluster employs 120,743 workers in the region with an average wage of \$81,375. Employment in the Public Admin. cluster is projected to contract in the region about 0.1% per year over the next ten years.

Industry Clusters for Sacramento County, California as of 2016Q2

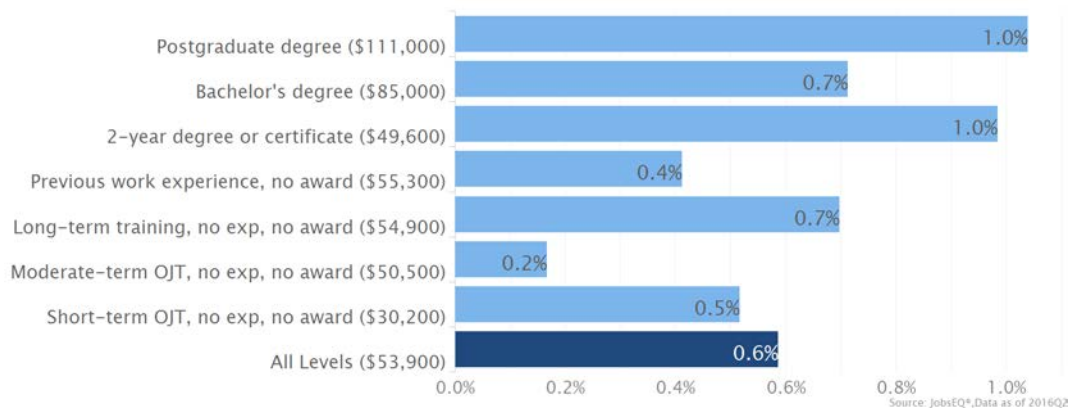


Location quotient and average wage data are derived from the Quarterly Census of Employment and Wages, provided by the Bureau of Labor Statistics, imputed where necessary, and updated through 2015Q4 with preliminary estimates updated to 2016Q2. Forecast employment growth uses national projections from the Bureau of Labor Statistics adapted for regional growth patterns.

Education Levels

Expected growth rates for occupations vary by the education and training required. While all employment in Sacramento County, California is projected to grow 0.6% over the next ten years, occupations typically requiring a postgraduate degree are expected to grow 1.0% per year, those requiring a bachelor's degree are expected to grow 0.7% per year, those requiring a bachelor's degree are forecast to grow 0.7% per year, and occupations typically needing a 2-year degree or certificate are expected to grow 1.0% per year.

Annual Average Projected Job Growth by Training Required for Sacramento County, California



Employment by occupation data are estimates as of 2016Q2. Education levels of occupations are based on BLS assignments. Forecast employment growth uses national projections from the Bureau of Labor Statistics adapted for regional growth patterns.

FAQ

What is a location quotient?

A location quotient (LQ) is a measurement of concentration in comparison to the nation. An LQ of 1.00 indicates a region has the same concentration of an industry (or occupation) as the nation. An LQ of 2.00 would mean the region has twice the expected employment compared to the nation and an LQ of 0.50 would mean the region has half the expected employment in comparison to the nation.

What is replacement demand?

Replacement demand is the number of jobs required due to replacements—retirements and turnover resulting from workers moving from one occupation into another. Note that replacement demand does not include all turnover—it does not include when workers stay in the same occupation but switch employers. The replacement demand shown in this report may also be understated; thus, it can be taken to be a minimum measure of the number of workers who will need to be trained for the occupation due to replacements. The total projected demand for an occupation is the sum of the replacement demand and the growth demand (which is the increase or decrease of jobs in an occupation expected due to expansion or contraction of the overall number of jobs in that occupation).

What is a cluster?

A cluster is a geographic concentration of interrelated industries or occupations. If a regional cluster has a location quotient of 1.25 or greater, the region is considered to possess a *competitive advantage* in that cluster.

What is the difference between industry wages and occupation wages?

Industry wages and occupation wages are estimated via separate data sets, often the time periods being reported do not align, and wages are defined slightly differently in the two systems (for example, certain bonuses are included in the industry wages but not the occupation wages). It is therefore common that estimates of the average industry wages and average occupation wages in a region do not match exactly.

What is NAICS?

The North American Industry Classification System (NAICS) is used to classify business establishments according to the type of economic activity. The NAICS Code comprises six levels, from the “all industry” level to the 6-digit level. The first two digits define the top level category, known as the “sector,” which is the level examined in this report.

What is SOC?

The Standard Occupational Classification system (SOC) is used to classify workers into occupational categories. All workers are classified into one of over 820 occupations according to their occupational definition. To facilitate classification, occupations are combined to form 23 major groups, 96 minor groups, and 449 occupation groups. Each occupation group includes detailed occupations requiring similar job duties, skills, education, or experience.

About This Report

This report and all data herein were produced by JobsEQ®, a product of Chmura Economics & Analytics. The information contained herein was obtained from sources we believe to be reliable. However, we cannot guarantee its accuracy and completeness.

City of
SACRAMENTO
Economic Development

Economic Overview
Sacramento-Roseville, CA CSA





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Demographic Profile

In 2015, the population in the Sacramento-Roseville, CA CSA was 2,544,026. Between 2005 and 2015, the region's population grew at an annual average rate of 1.1%.

The region has a civilian labor force of 1,200,688 with a participation rate of 62.0%. Of individuals 25 to 64 in the Sacramento-Roseville, CA CSA, 30.5% have a bachelor's degree or higher which compares with 30.9% in the nation.

The median household income in the Sacramento-Roseville, CA CSA is \$58,482 and the median house value is \$272,100.

Summary ¹						
	Percent			Value		
	Sacramento-Roseville, CA CSA	California	USA	Sacramento-Roseville, CA CSA	California	USA
Demographics						
Population ²	—	—	—	2,544,026	39,144,818	321,418,820
Population Annual Average Growth ²	1.1%	0.9%	0.8%	25,688	331,688	2,590,222
Median Age ³	—	—	—	36.3	35.2	37.2
Under 18 Years	24.9%	25.0%	24.0%	601,152	9,295,040	74,181,467
18 to 24 Years	10.2%	10.5%	9.9%	245,133	3,922,951	30,672,088
25 to 34 Years	13.4%	14.3%	13.3%	323,964	5,317,877	41,063,948
35 to 44 Years	13.0%	13.9%	13.3%	314,856	5,182,710	41,070,606
45 to 54 Years	14.5%	14.1%	14.6%	349,167	5,252,371	45,006,716
55 to 64 Years	11.7%	10.8%	11.8%	283,684	4,036,493	36,482,729
65 to 74 Years	6.6%	6.1%	7.0%	159,561	2,275,336	21,713,429
75 Years, and Over	5.7%	5.3%	6.0%	137,266	1,971,178	18,554,555
Race: White	65.7%	57.6%	72.4%	1,587,118	21,453,934	223,553,265
Race: Black or African American	6.8%	6.2%	12.6%	163,095	2,299,072	38,929,319
Race: American Indian and Alaska Native	1.1%	1.0%	0.9%	25,687	362,801	2,932,248
Race: Asian	11.4%	13.0%	4.8%	275,707	4,861,007	14,674,252
Race: Native Hawaiian and Other Pacific Islander	0.7%	0.4%	0.2%	16,524	144,386	540,013
Race: Some Other Race	8.5%	17.0%	6.2%	205,912	6,317,372	19,107,368
Race: Two or More Races	5.8%	4.9%	2.9%	140,740	1,815,384	9,009,073
Hispanic or Latino (of any race)	20.2%	37.6%	16.3%	487,475	14,013,719	50,477,594
Economic						
Labor Force Participation Rate and Size (civilian population 16 years and over) ⁴	62.0%	63.4%	63.5%	1,200,688	18,975,006	157,940,014
Armed Forces Labor Force ⁴	0.3%	0.4%	0.4%	5,327	133,870	1,025,497
Veterans, Age 18-64 ⁴	5.9%	4.0%	5.8%	90,959	968,466	11,371,344
Median Household Income ^{3,4}	—	—	—	\$58,482	\$61,489	\$53,482
Per Capita Income ^{3,4}	—	—	—	\$28,871	\$29,906	\$28,555

Summary ¹						
	Percent			Value		
	Sacramento-Roseville, CA CSA	California	USA	Sacramento-Roseville, CA CSA	California	USA
Poverty Level (of all people) ⁴	16.2%	16.4%	15.6%	391,792	6,115,244	47,755,606
Households Receiving Food Stamps ⁴	9.8%	8.7%	13.0%	86,925	1,102,641	15,089,358
Mean Commute Time (minutes) ⁴	—	—	—	26.1	27.6	25.7
Commute via Public Transportation ⁴	2.5%	5.2%	5.1%	25,417	859,372	7,157,671
Union Membership ⁵	22.1%	16.4%	11.1%	—	—	—
Educational Attainment, Age 25-64						
No High School Diploma ⁴	11.5%	17.7%	12.0%	149,164	3,582,292	19,939,890
High School Graduate ⁴	20.8%	20.3%	26.5%	269,308	4,103,854	44,000,387
Some College, No Degree ⁴	27.0%	22.4%	21.9%	349,061	4,530,225	36,270,359
Associate's Degree ⁴	10.1%	8.0%	8.7%	130,566	1,620,584	14,487,486
Bachelor's Degree ⁴	20.4%	20.4%	19.7%	263,848	4,131,150	32,646,533
Postgraduate Degree ⁴	10.1%	11.3%	11.2%	130,232	2,279,854	18,533,513
Housing						
Total Housing Units ⁴	—	—	—	992,692	13,781,929	132,741,033
Median House Value (of owner-occupied units) ^{3,4}	—	—	—	\$272,100	\$371,400	\$175,700
Homeowner Vacancy ⁴	1.9%	1.6%	2.1%	10,336	114,943	1,591,421
Rental Vacancy ⁴	5.9%	4.6%	6.9%	22,431	275,877	3,105,361
Renter-Occupied Housing Units (% of Occupied Units) ⁴	39.8%	45.2%	35.6%	354,265	5,708,355	41,423,632
Occupied Housing Units with No Vehicle Available (% of Occupied Units) ⁴	6.7%	7.8%	9.1%	59,703	984,914	10,594,153
Social						
Enrolled in Grade 12 (% of total population) ⁴	1.6%	1.6%	1.4%	40,566	627,396	4,443,768
Disconnected Youth ^{4,6}	2.0%	2.7%	3.3%	2,786	59,427	572,277
Children in Single Parent Families (% of all children) ⁴	32.7%	33.8%	34.7%	186,394	2,969,144	24,388,185
Disabled, Age 18-64 ⁴	10.5%	8.0%	10.2%	159,550	1,916,028	19,703,061
Disabled, Age 18-64, Labor Force Participation Rate and Size ⁴	40.2%	40.5%	41.2%	64,171	776,518	8,119,295
Foreign Born ⁴	17.3%	27.0%	13.1%	426,796	10,290,636	41,056,885
Speak English Less Than Very Well (population 5 yrs and over) ⁴	11.4%	19.1%	8.6%	263,139	6,789,522	25,305,202

Source: [JobsEQ®](#)

1, Census 2010, unless noted otherwise

2, Census 2015, annual average growth rate since 2005

3, Median values for certain aggregate regions (such as MSAs) may be estimated as the weighted averages of the median values from the composing counties.

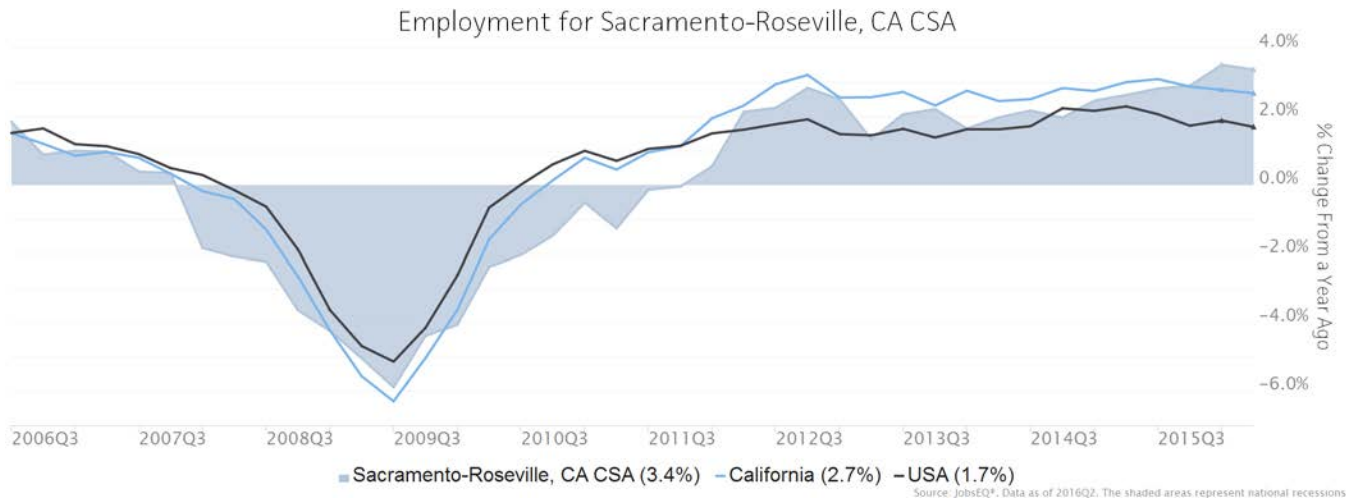
4, ACS 2010-2014

5, 2014; Current Population Survey, unionstats.com, and Chmura; county- and zip-level data are best estimates based upon industry-, MSA-, and state-level data

6, Disconnected Youth are 16-19 year olds who are (1) not in school, (2) not high school graduates, and (3) either unemployed or not in the labor force.

Employment Trends

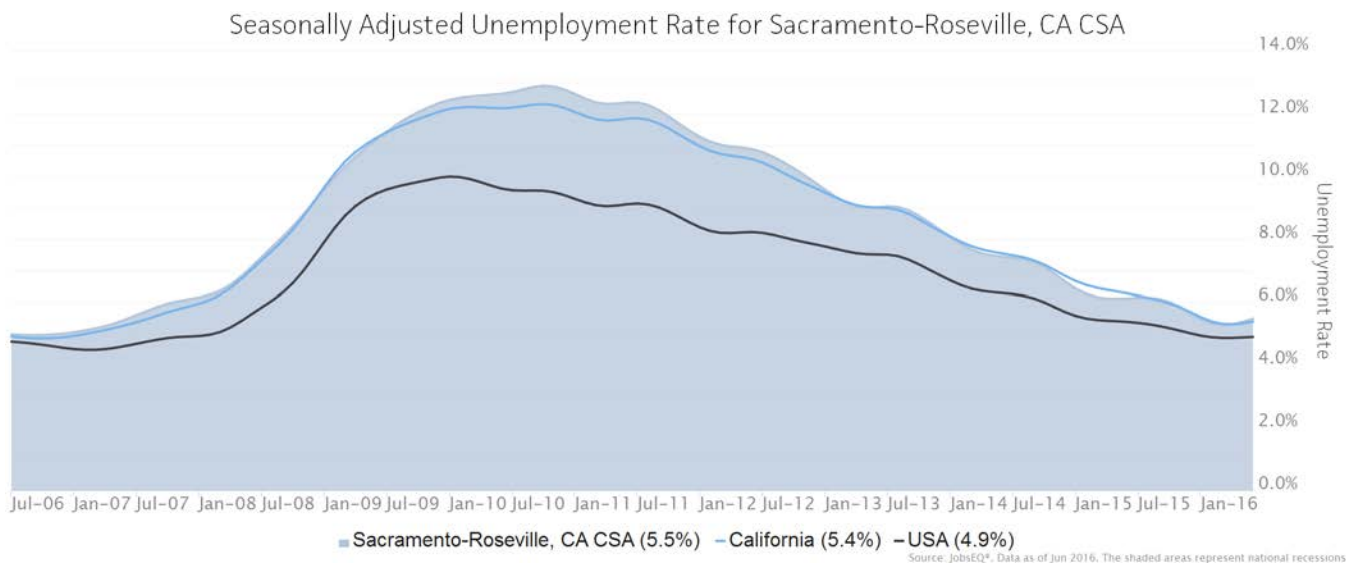
As of 2016Q2, total employment for the Sacramento-Roseville, CA CSA was 1,085,756 (based on a four-quarter moving average). Over the year ending 2016Q2, employment increased 3.4% in the region.



Employment data are derived from the Quarterly Census of Employment and Wages, provided by the Bureau of Labor Statistics and imputed where necessary. Data are updated through 2015Q4 with preliminary estimates updated to 2016Q2.

Unemployment Rate

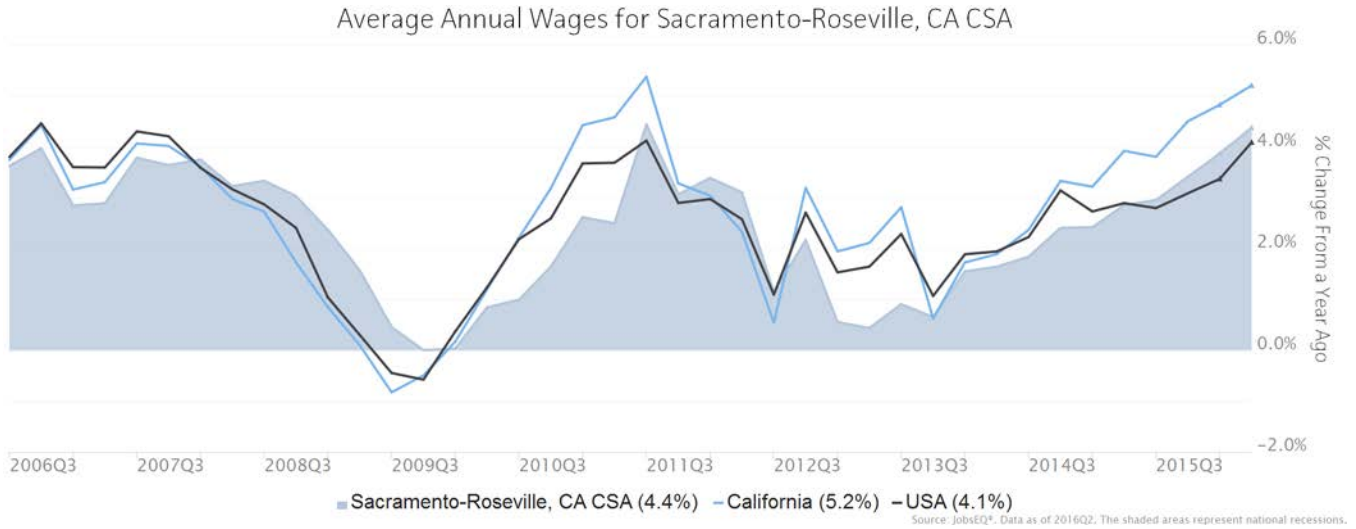
The seasonally adjusted unemployment rate for the Sacramento-Roseville, CA CSA was 5.5% as of June 2016. The regional unemployment rate was higher than the national rate of 4.9%. One year earlier, in June 2015, the unemployment rate in the Sacramento-Roseville, CA CSA was 6.1%.



Unemployment rate data are from the Local Area Unemployment Statistics, provided by the Bureau of Labor Statistics and updated through June 2016.

Wage Trends

The average worker in the Sacramento-Roseville, CA CSA earned annual wages of \$54,268 as of 2016Q2. Average annual wages per worker increased 4.4% in the region during the preceding four quarters. For comparison purposes, annual average wages were \$53,084 in the nation as of 2016Q2.



Annual average wages per worker data are derived from the Quarterly Census of Employment and Wages, provided by the Bureau of Labor Statistics and imputed where necessary. Data are updated through 2015Q4 with preliminary estimates updated to 2016Q2.

Cost of Living Index

The Cost of Living Index estimates the relative price levels for consumer goods and services. When applied to wages and salaries, the result is a measure of relative purchasing power. The cost of living is 24.5% higher in Sacramento-Roseville, CA CSA than the U.S. average.

Cost of Living Information			
	Annual Average Salary	Cost of Living Index (Base US)	US Purchasing Power
Sacramento-Roseville, CA CSA	\$55,102	124.5	\$44,267
California	\$63,513	154.6	\$41,094
USA	\$54,152	100.0	\$54,152

Source: [JobsEQ®](http://www.chmuraecon.com/jobseq)

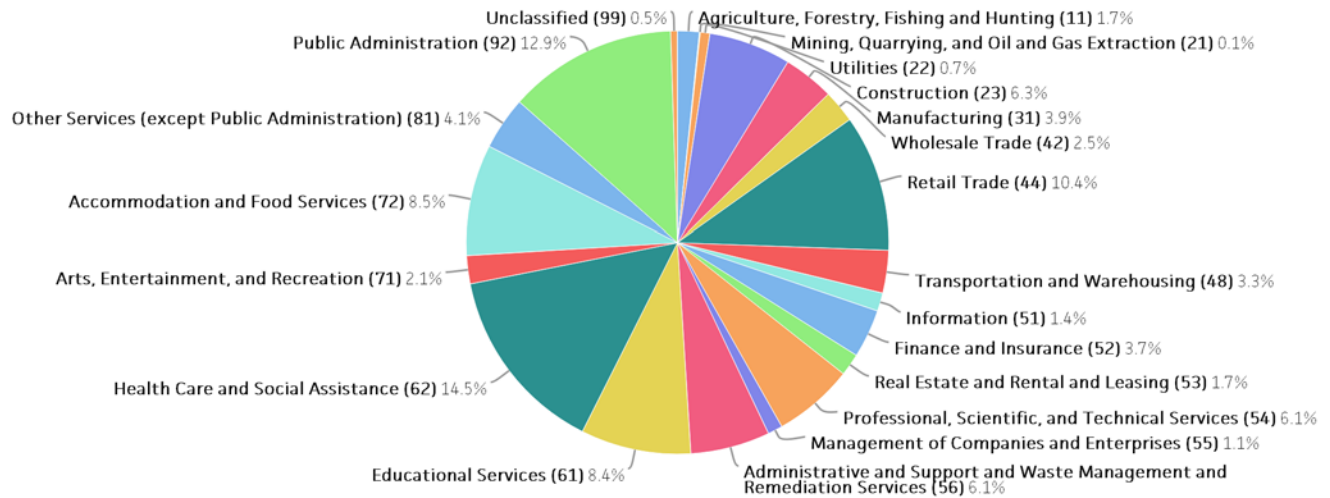
Data as of 2016Q2

The Cost of Living Index is developed by Chmura Economics & Analytics and is updated quarterly.

Industry Snapshot

The largest sector in the Sacramento-Roseville, CA CSA is Health Care and Social Assistance, employing 156,964 workers. The next-largest sectors in the region are Public Administration (140,452 workers) and Retail Trade (113,010). High location quotients (LQs) indicate sectors in which a region has high concentrations of employment compared to the national average. The sectors with the largest LQs in the region are Public Administration (LQ = 2.70), Utilities (1.34), and Construction (1.15).

Total Workers for Sacramento-Roseville, CA CSA by Industry



Source: JobsEQ®, Data as of 2016Q2

Employment data are derived from the Quarterly Census of Employment and Wages, provided by the Bureau of Labor Statistics and imputed where necessary. Data are updated through 2015Q4 with preliminary estimates updated to 2016Q2.

Sectors in the Sacramento-Roseville, CA CSA with the highest average wages per worker are Utilities (\$100,068), Management of Companies and Enterprises (\$84,580), and Professional, Scientific, and Technical Services (\$83,166). Regional sectors with the best job growth (or most moderate job losses) over the last 5 years are Health Care and Social Assistance (+43,618 jobs), Construction (+16,280), and Administrative and Support and Waste Management and Remediation Services (+15,414).

Over the next 10 years, employment in the Sacramento-Roseville, CA CSA is projected to expand by 63,953 jobs. The fastest growing sector in the region is expected to be Health Care and Social Assistance with a +1.9% year-over-year rate of growth. The strongest forecast by number of jobs over this period is expected for Health Care and Social Assistance (+32,219 jobs), Construction (+7,585), and Professional, Scientific, and Technical Services (+7,324).

		Current			Historical				Forecast		
		Four Quarters Ending with 2016q2			Total Change over the Last 5 Years	Average Annual % Change in Employment 2011q2-2016q2			Over the Next 10 Years		
NAICS	Industry	Empl	Avg. Annual Wages	Location Quotient	Empl	Sacramen to-Roseville, CA CSA	California	USA	Total Approx Repl Demand	Total Growth Demand	Avg. Annual Growth Percent
11	Agriculture, Forestry, Fishing and Hunting	18,105	\$37,355	1.14	1,393	1.6%	1.3%	1.0%	6,210	-843	-0.5%
21	Mining, Quarrying, and Oil and Gas Extraction	699	\$78,132	0.14	-54	-1.5%	-1.0%	-0.4%	173	42	0.6%
22	Utilities	7,884	\$100,068	1.34	225	0.6%	0.2%	0.2%	2,000	-74	-0.1%
23	Construction	68,389	\$57,871	1.15	16,280	5.6%	5.1%	2.7%	14,044	7,585	1.1%
31	Manufacturing	42,253	\$73,476	0.47	3,512	1.8%	0.7%	1.1%	9,394	-3,522	-0.9%
42	Wholesale Trade	27,397	\$61,970	0.63	2,078	1.6%	2.0%	1.4%	6,099	781	0.3%
44	Retail Trade	113,010	\$32,370	0.96	10,090	1.9%	1.7%	1.5%	35,413	3,804	0.3%
48	Transportation and Warehousing	35,380	\$52,618	0.79	3,949	2.4%	3.6%	2.4%	9,009	-1,404	-0.4%
51	Information	15,112	\$68,134	0.69	-2,265	-2.8%	3.0%	0.6%	3,522	-948	-0.6%
52	Finance and Insurance	40,401	\$82,595	0.94	1,619	0.8%	0.5%	0.9%	9,711	2,026	0.5%
53	Real Estate and Rental and Leasing	18,341	\$50,225	1.00	1,658	1.9%	1.6%	1.7%	4,158	827	0.4%
54	Professional, Scientific, and Technical Services	66,712	\$83,166	0.94	1,981	0.6%	2.9%	2.5%	14,405	7,324	1.0%
55	Management of Companies and Enterprises	12,327	\$84,580	0.77	786	1.3%	3.5%	3.5%	2,634	293	0.2%
56	Administrative and Support and Waste Management and Remediation Services	66,022	\$37,697	0.94	15,414	5.5%	4.0%	2.9%	15,290	5,374	0.8%
61	Educational Services	91,582	\$49,477	1.02	3,168	0.7%	1.3%	0.4%	19,642	5,878	0.6%
62	Health Care and Social Assistance	156,964	\$56,968	1.03	43,618	6.7%	6.6%	2.3%	32,796	32,219	1.9%
71	Arts, Entertainment, and Recreation	23,293	\$29,730	1.09	691	0.6%	2.5%	2.1%	7,231	1,252	0.5%
72	Accommodation and Food Services	91,855	\$19,736	0.95	15,011	3.6%	4.2%	3.1%	32,551	3,378	0.4%
81	Other Services (except Public Administration)	44,057	\$34,433	0.91	-13,846	-5.3%	-5.0%	-0.1%	11,160	1,374	0.3%
92	Public Administration	140,452	\$79,176	2.70	-3,468	-0.5%	0.0%	-0.4%	33,667	-1,817	-0.1%
99	Unclassified	5,521	\$37,562	2.60	3,050	17.4%	15.0%	12.6%	1,376	331	0.6%
	Total - All Industries	1,085,756	\$54,268	1.00	104,891	2.1%	2.5%	1.7%	270,340	63,953	0.6%

Source: [JobsEQ®](#)

Employment data are derived from the Quarterly Census of Employment and Wages, provided by the Bureau of Labor Statistics and imputed where necessary. Data are updated through 2015Q4 with preliminary estimates updated to 2016Q2. Forecast employment growth uses national projections adapted for regional growth patterns.

Occupation Snapshot

The largest major occupation group in the Sacramento-Roseville, CA CSA is Office and Administrative Support Occupations, employing 165,583 workers. The next-largest occupation groups in the region are Sales and Related Occupations (103,069 workers) and Food Preparation and Serving Related Occupations (92,930). High location quotients (LQs) indicate occupation groups in which a region has high concentrations of employment compared to the national average. The major groups with the largest LQs in the region are Protective Service Occupations (LQ = 1.60), Farming, Fishing, and Forestry Occupations (1.59), and Community and Social Service Occupations (1.52).

Occupation groups in the Sacramento-Roseville, CA CSA with the highest average wages per worker are Legal Occupations (\$108,800), Management Occupations (\$106,300), and Healthcare Practitioners and Technical Occupations (\$100,400). The unemployment rate in the region varied among the major groups from 0.8% among Legal Occupations to 12.5% among Farming, Fishing, and Forestry Occupations.

Over the next 10 years, the fastest growing occupation group in the Sacramento-Roseville, CA CSA is expected to be Healthcare Support Occupations with a +1.9% year-over-year rate of growth. The strongest forecast by number of jobs over this period is expected for Healthcare Practitioners and Technical Occupations (+10,602 jobs) and Healthcare Support Occupations (+7,202). Over the same period, the highest replacement demand (occupation demand due to retirements and workers moving from one occupation to another) is expected in Food Preparation and Serving Related Occupations (35,918 jobs) and Office and Administrative Support Occupations (35,503).

Occupation Snapshot in Sacramento-Roseville, CA CSA														
		Current					Historical				Forecast			
		Four Quarters Ending with 2016q2			2016q2		Total Change over the Last 5 Years	Avg Ann % Chg in Empl 2011q2-2016q2			Over the Next 10 Years			
SOC	Title	Empl	Avg. Annual Wages ¹	LQ	Unempl	Unempl Rate	Empl	Sacramento-Roseville, CA CSA	California	USA	Current Online Job Ads ²	Total Repl Demand	Total Growth Demand	Avg. Annual Growth Percent
11-0000	Management Occupations	62,338	\$106,300	0.95	1,651	2.6%	4,490	1.5%	2.1%	1.5%	603	20,269	2,841	0.4%
13-0000	Business and Financial Operations Occupations	58,076	\$71,500	1.10	2,052	3.4%	2,712	1.0%	2.0%	1.6%	517	13,045	3,673	0.6%
15-0000	Computer and Mathematical Occupations	28,990	\$86,000	0.97	899	2.9%	2,064	1.5%	4.0%	2.7%	254	4,503	2,898	1.0%
17-0000	Architecture and Engineering Occupations	18,450	\$88,000	1.01	641	3.3%	605	0.7%	1.4%	1.3%	385	4,662	528	0.3%
19-0000	Life, Physical, and Social Science Occupations	11,527	\$73,000	1.33	455	3.9%	110	0.2%	1.7%	1.1%	43	3,695	738	0.6%
21-0000	Community and Social Service Occupations	26,287	\$53,200	1.52	768	2.9%	2,893	2.4%	4.6%	1.5%	123	5,820	2,154	0.8%
23-0000	Legal Occupations	11,972	\$108,800	1.40	97	0.8%	-112	-0.2%	0.7%	0.2%	31	2,355	461	0.4%
25-0000	Education, Training, and Library Occupations	62,669	\$59,300	1.02	2,363	3.6%	2,915	1.0%	1.5%	0.5%	272	13,573	4,916	0.8%
27-	Arts, Design,	16,279	\$54,400	0.86	662	3.8%	339	0.4%	1.8%	1.2%	240	5,645	259	0.2%

Occupation Snapshot in Sacramento-Roseville, CA CSA

		Current					Historical				Forecast			
		Four Quarters Ending with 2016q2			2016q2		Total Change over the Last 5 Years	Avg Ann % Chg in Empl 2011q2-2016q2			Over the Next 10 Years			
SOC	Title	Empl	Avg. Annual Wages ¹	LQ	Unempl	Unempl Rate	Empl	Sacramento-Roseville, CA CSA	California	USA	Current Online Job Ads ²	Total Repl Demand	Total Growth Demand	Avg. Annual Growth Percent
0000	Entertainment, Sports, and Media Occupations													
29-0000	Healthcare Practitioners and Technical Occupations	61,319	\$100,400	1.00	1,045	1.7%	6,641	2.3%	2.4%	1.5%	611	13,829	10,602	1.6%
31-0000	Healthcare Support Occupations	33,900	\$35,200	1.06	1,830	5.1%	8,728	6.1%	6.4%	2.3%	229	7,579	7,202	1.9%
33-0000	Protective Service Occupations	33,489	\$57,400	1.60	1,771	5.2%	-244	-0.1%	1.5%	0.8%	53	8,060	616	0.2%
35-0000	Food Preparation and Serving Related Occupations	92,930	\$24,800	1.00	8,750	8.6%	15,620	3.7%	4.1%	3.0%	306	35,918	4,267	0.4%
37-0000	Building and Grounds Cleaning and Maintenance Occupations	36,731	\$30,100	0.94	3,123	7.7%	-4,425	-2.2%	-1.8%	1.0%	190	8,498	2,115	0.6%
39-0000	Personal Care and Service Occupations	53,653	\$25,600	1.24	3,058	5.3%	10,419	4.4%	5.0%	2.2%	270	13,220	6,659	1.2%
41-0000	Sales and Related Occupations	103,069	\$38,700	0.91	6,976	6.3%	7,843	1.6%	1.8%	1.4%	1,183	33,855	3,759	0.4%
43-0000	Office and Administrative Support Occupations	165,583	\$39,800	1.01	9,942	5.6%	13,778	1.8%	2.3%	1.6%	1,462	35,503	1,654	0.1%
45-0000	Farming, Fishing, and Forestry Occupations	11,045	\$24,000	1.59	1,725	12.5%	931	1.8%	1.6%	1.4%	8	3,202	-491	-0.5%
47-0000	Construction and Extraction Occupations	56,179	\$55,400	1.16	4,131	7.1%	11,339	4.6%	4.3%	2.3%	182	10,681	5,532	0.9%
49-0000	Installation, Maintenance, and Repair Occupations	39,673	\$50,000	0.96	2,356	5.6%	4,695	2.6%	2.5%	1.7%	198	9,965	2,284	0.6%
51-0000	Production Occupations	39,608	\$39,200	0.59	3,345	7.4%	4,891	2.7%	1.7%	1.6%	126	10,399	-480	-0.1%
53-0000	Transportation and Material Moving Occupations	61,988	\$36,700	0.85	5,731	8.4%	8,659	3.1%	3.3%	2.3%	195	16,089	1,929	0.3%
00-0000	Total - All Occupations	1,085,756	\$52,100	1.00	n/a	n/a	104,891	2.1%	2.5%	1.7%	7,481	280,365	64,118	0.6%

Source: [JobsEQ®](http://www.chmuraecon.com/jobseq)

Data as of 2016Q2 unless noted otherwise

Note: Figures may not sum due to rounding.

1. Occupation wages are as of 2015 and should be taken as the average for all Covered Employment

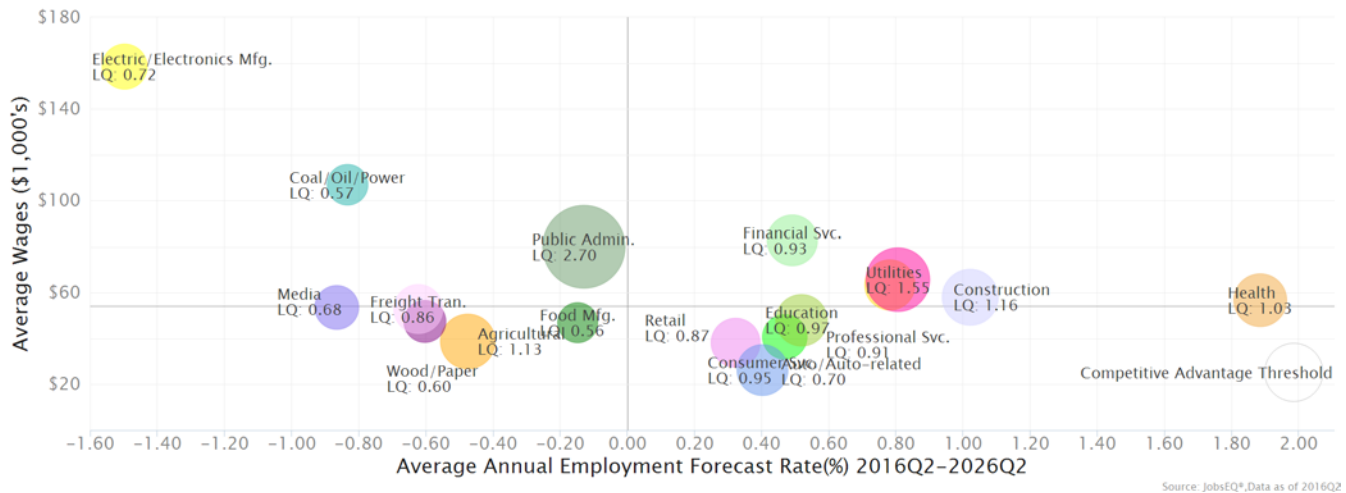
2. Data represent found online ads active within the last thirty days in any zip code intersecting or within the selected region; data represents a sampling rather than the complete universe of postings; the listing search uses keywords that are similar to but not the equivalent of the SOC occupation definitions.

Occupation employment data are estimated via industry employment data and the estimated industry/occupation mix. Industry employment data are derived from the Quarterly Census of Employment and Wages, provided by the Bureau of Labor Statistics and currently updated through 2015Q4, imputed where necessary with preliminary estimates updated to 2016Q2. Wages by occupation are as of 2015 provided by the BLS and imputed where necessary. Forecast employment growth uses national projections from the Bureau of Labor Statistics adapted for regional growth patterns.

Industry Clusters

A cluster is a geographic concentration of interrelated industries or occupations. The industry cluster in the Sacramento-Roseville, CA CSA with the highest relative concentration is Public Admin. with a location quotient of 2.70. This cluster employs 140,452 workers in the region with an average wage of \$79,951. Employment in the Public Admin. cluster is projected to contract in the region about 0.1% per year over the next ten years.

Industry Clusters for Sacramento-Roseville, CA CSA as of 2016Q2

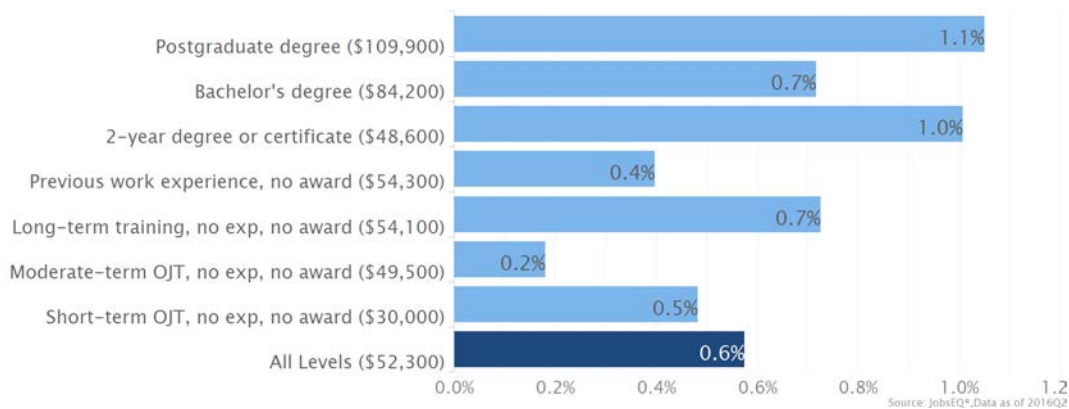


Location quotient and average wage data are derived from the Quarterly Census of Employment and Wages, provided by the Bureau of Labor Statistics, imputed where necessary, and updated through 2015Q4 with preliminary estimates updated to 2016Q2. Forecast employment growth uses national projections from the Bureau of Labor Statistics adapted for regional growth patterns.

Education Levels

Expected growth rates for occupations vary by the education and training required. While all employment in the Sacramento-Roseville, CA CSA is projected to grow 0.6% over the next ten years, occupations typically requiring a postgraduate degree are expected to grow 1.1% per year, those requiring a bachelor's degree are forecast to grow 0.7% per year, and occupations typically needing a 2-year degree or certificate are expected to grow 1.0% per year.

Annual Average Projected Job Growth by Training Required for Sacramento-Roseville, CA CSA



Employment by occupation data are estimates as of 2016Q2. Education levels of occupations are based on BLS assignments. Forecast employment growth uses national projections from the Bureau of Labor Statistics adapted for regional growth patterns.

Region Definition

Sacramento-Roseville, CA CSA is defined as the following counties: El Dorado County, California; Nevada County, California; Placer County, California; Sacramento County, California; Sutter County, California; Yolo County, California; Yuba County, California

FAQ

What is a location quotient?

A location quotient (LQ) is a measurement of concentration in comparison to the nation. An LQ of 1.00 indicates a region has the same concentration of an industry (or occupation) as the nation. An LQ of 2.00 would mean the region has twice the expected employment compared to the nation and an LQ of 0.50 would mean the region has half the expected employment in comparison to the nation.

What is replacement demand?

Replacement demand is the number of jobs required due to replacements—retirements and turnover resulting from workers moving from one occupation into another. Note that replacement demand does not include all turnover—it does not include when workers stay in the same occupation but switch employers. The replacement demand shown in this report may also be understated; thus, it can be taken to be a minimum measure of the number of workers who will need to be trained for the occupation due to replacements. The total projected demand for an occupation is the sum of the replacement demand and the growth demand (which is the increase or decrease of jobs in an occupation expected due to expansion or contraction of the overall number of jobs in that occupation).

What is a cluster?

A cluster is a geographic concentration of interrelated industries or occupations. If a regional cluster has a location quotient of 1.25 or greater, the region is considered to possess a *competitive advantage* in that cluster.

What is the difference between industry wages and occupation wages?

Industry wages and occupation wages are estimated via separate data sets, often the time periods being reported do not align, and wages are defined slightly differently in the two systems (for example, certain bonuses are included in the industry wages but not the occupation wages). It is therefore common that estimates of the average industry wages and average occupation wages in a region do not match exactly.

What is NAICS?

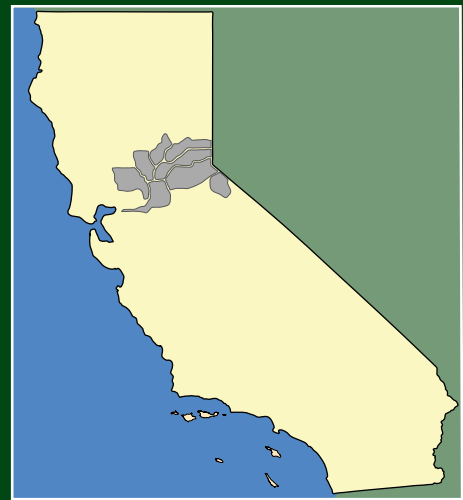
The North American Industry Classification System (NAICS) is used to classify business establishments according to the type of economic activity. The NAICS Code comprises six levels, from the “all industry” level to the 6-digit level. The first two digits define the top level category, known as the “sector,” which is the level examined in this report.

What is SOC?

The Standard Occupational Classification system (SOC) is used to classify workers into occupational categories. All workers are classified into one of over 820 occupations according to their occupational definition. To facilitate classification, occupations are combined to form 23 major groups, 96 minor groups, and 449 occupation groups. Each occupation group includes detailed occupations requiring similar job duties, skills, education, or experience.

About This Report

This report and all data herein were produced by JobsEQ®, a product of Chmura Economics & Analytics. The information contained herein was obtained from sources we believe to be reliable. However, we cannot guarantee its accuracy and completeness.



Regional Economic Analysis Profile

Sacramento Economic Market

May 2015



Alpine, El Dorado, Nevada, Placer, Sacramento, Sutter, Yolo, and Yuba Counties



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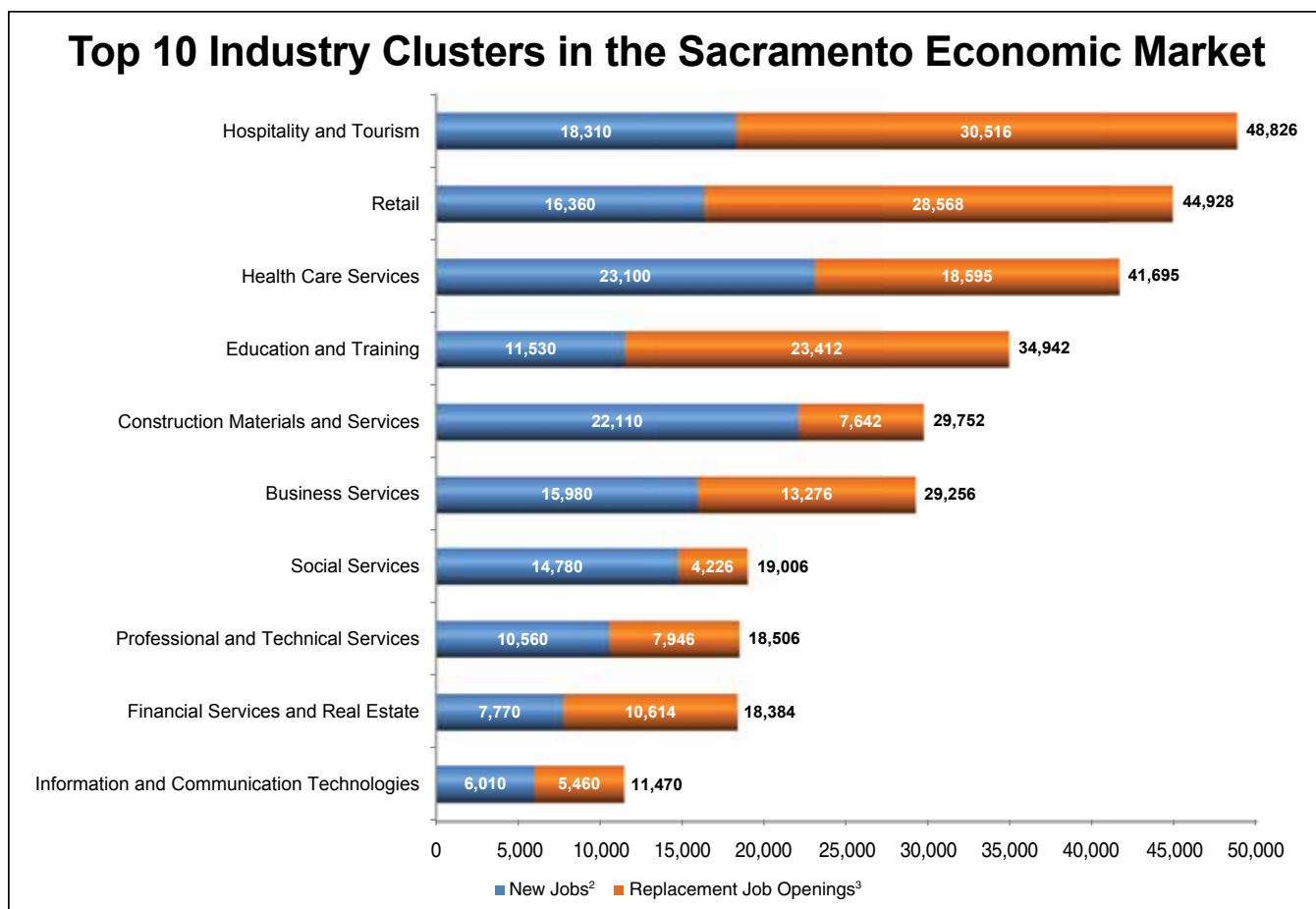
SUMMARY OF THE SACRAMENTO ECONOMIC MARKET INDUSTRY CLUSTERS

What is an Industry Cluster?

Industry clusters are groups of associated industries in an economic market that stimulate the creation of new businesses and job opportunities in a particular field. The application of workforce and economic development resources toward the continual development of industry clusters will help stimulate economic growth and boost the number of employment opportunities for the labor force.

Purpose of this Report

The purpose of this report is to help align the state's workforce institutions and programs around the needs of economic market industry clusters. This report focuses on the future employment demand of economic market industry clusters and features them as primary investment opportunities for the California workforce development system. The goal of this report is to account for industry clusters with the largest number of projected total job openings¹ and help the California workforce development system prepare the state's workforce to compete for these future job opportunities.



Source: California Employment Development Department, Projections of Employment 2012-2022. Industry and occupational employment projections for 2012-2022 in this report may not be directly comparable to the published 2012-2022 employment projections available online at www.labormarketinfo.edd.ca.gov.

¹ Total job openings are the sum of new jobs and replacement job openings.

² New jobs are only openings due to growth and do not include job declines. If an occupation's employment change is negative, there is no job growth and new jobs are set to zero.

³ Replacement job openings estimate the number of job openings created when workers retire or permanently leave an occupation and need to be replaced.

INDUSTRY CLUSTER DESCRIPTIONS

The following are descriptions of the Sacramento Economic Market's top 10 industry clusters followed by a list of the top industries with the highest total projected job openings in the cluster.

The **Hospitality and Tourism** industry cluster includes interrelated industries such as eating establishments, hotels and motels, casinos, museums, and sightseeing transportation. During 2013-2014,* this cluster comprised more than 96,000 workers, or 12.2 percent of the economic market's employment. Industries within this cluster with the most projected job openings include:

- Restaurants and Other Eating Places
- Other Amusement and Recreation Industries
- Traveler Accommodation
- Special Food Services
- Drinking Places (Alcoholic Beverages)

The **Retail** industry cluster includes grocery and department stores, dollar stores, retail pharmacies, and clothing specialty stores. During 2013-2014,* this cluster employed nearly 94,000 workers, or 11.9 percent of the economic market's total employment. Industries projected to have the largest number of jobs (new and replacement) include:

- Grocery Stores
- Other General Merchandise Stores
- Building Material and Supplies Dealers
- Automobile Dealers
- Department Stores

The **Health Care Services** industry cluster includes acute care and outpatient hospitals, nursing homes and rehabilitation centers, adult day care centers, and community service agencies for the elderly. It employed more than 96,000 people in the economic market during 2013-2014,* accounting for 12.2 percent of the workforce. Industries in this cluster may include both public and private employment. Top industries within this cluster include:

- General Medical and Surgical Hospitals
- Outpatient Care Centers
- Offices of Physicians
- Nursing Care Facilities (Skilled Nursing Facilities)
- Continuing Care Retirement Communities and Assisted Living Facilities for the Elderly

The **Education and Training** industry cluster is comprised of public and private elementary and high schools, community colleges, universities, and professional schools with programs such as dental, law, and medical. Other establishments include English as a Second Language (ESL) programs, test preparation and tutoring, or driving instruction. During 2013-2014,* this cluster employed almost 90,000 people in the economic market, accounting for 11.4 percent of the workforce. Top industries within this cluster include:

- Elementary and Secondary Schools
- Colleges, Universities, and Professional Schools
- Junior Colleges
- Other Schools and Instruction
- Educational Support Services

The **Construction Materials and Services** industry cluster is comprised of builders of mechanical systems such as electrical, heating, and water; specialty trades outfits such as drywall, flooring, and painting contractors; residential and commercial builders; and contractors who complete foundation and framing work. During 2013- 2014,* nearly 49,000 workers made up the cluster's employment, representing 6.2 percent of the economic market's total workforce. Industries showing the highest projected job openings include:

- Building Equipment Contractors
- Building Finishing Contractors
- Foundation, Structure, and Building Exterior Contractors
- Residential Building Construction
- Nonresidential Building Construction

* Quarterly Census of Employment and Wages (QCEW), a federal-state cooperative program, for the period April 2013 through March 2014.

INDUSTRY CLUSTER DESCRIPTIONS

The **Business Services** industry cluster is comprised of industries that include temporary help agencies, employer organizations, janitorial services, security systems services, and carpet cleaning establishments. This cluster employed nearly 66,000 people during 2013-2014,* or 8.3 percent of the economic market's workforce. Top industries in this cluster include:

- Employment Services
- Services to Buildings and Dwellings
- Office Administrative Services
- Management of Companies and Enterprises
- Investigation and Security Services

The **Social Services** industry cluster is comprised of establishments and agencies (public and private) that provide non-residential services for the welfare of children, adults, the elderly, and disabled. Examples include nonmedical in-home care programs, day care centers, and community food banks. In total, the cluster employed more than 37,000 people and accounted for 4.7 percent of the economic market's workforce in 2013-2014.* Industries include:

- Individual and Family Services
- Child Day Care Services
- Vocational Rehabilitation Services
- Community Food and Housing, and Emergency and Other Relief Services

The **Professional and Technical Services** industry cluster is comprised of interrelated industries that include engineering and architectural firms, law offices, advertising companies, and accounting firms. In 2013- 2014,* more than 38,000 people were employed in the economic market, or 4.9 percent of the economic market's workforce. Top industries within this cluster include:

- Management, Scientific, and Technical Consulting Services
- Architectural, Engineering, and Related Services
- Accounting, Tax Preparation, Bookkeeping, and Payroll Services
- Legal Services
- Other Professional, Scientific, and Technical Services

The **Financial Services and Real Estate** industry cluster includes commercial banks, savings institutions, credit unions, credit card companies, insurance firms, and real estate appraisers or property management companies. In total, the cluster employed almost 49,000 people, which accounted for 6.2 percent of the economic market's workforce in 2013-2014.* Industries showing the highest projected job openings include:

- Insurance Carriers
- Depository Credit Intermediation
- Agencies, Brokerages, and Other Insurance Related Activities
- Activities Related to Real Estate
- Nondepository Credit Intermediation

The **Information and Communication Technologies** industry cluster includes interdependent industries related to computers and peripheral equipment, as well as software design and manufacturing, computer programming services, installation services, and wireless telecommunications carriers. For 2013-2014,* this cluster employed nearly 28,000 workers, or 3.5 percent of the economic market's total employment. Industries with the highest number of expected job openings include:

- Computer Systems Design and Related Services
- Wholesale Electronic Markets and Agents and Brokers
- Computer and Peripheral Equipment Manufacturing
- Other Information Services
- Wired Telecommunications Carriers

* Quarterly Census of Employment and Wages (QCEW), a federal-state cooperative program, for the period April 2013 through March 2014.

INDUSTRY CLUSTER DEFINITIONS

The following is a list of the North American Industry Classification System (NAICS) codes and corresponding industries that fall under each of the top 10 industry clusters in the Sacramento Economic.

Hospitality and Tourism

- 4871 Scenic and Sightseeing Transportation, Land
- 4872 Scenic and Sightseeing Transportation, Water
- 4879 Scenic and Sightseeing Transportation, Other
- 5615 Travel Arrangement and Reservation Services
- 7121 Museums, Historical Sites, and Similar Institutions
- 7131 Amusement Parks and Arcades
- 7132 Gambling Industries
- 7139 Other Amusement and Recreation Industries
- 7211 Traveler Accommodation
- 7212 RV (Recreational Vehicle) Parks and Recreational Camps
- 7213 Rooming and Boarding Houses
- 7223 Special Food Services
- 7224 Drinking Places (Alcoholic Beverages)
- 7225 Restaurants and Other Eating Places

Retail

- 4411 Automobile Dealers
- 4412 Other Motor Vehicle Dealers
- 4413 Automotive Parts, Accessories, and Tire Stores
- 4431 Electronics and Appliance Stores
- 4441 Building Material and Supplies Dealers
- 4451 Grocery Stores
- 4452 Specialty Food Stores
- 4453 Beer, Wine, and Liquor Stores
- 4461 Health and Personal Care Stores
- 4471 Gasoline Stations
- 4481 Clothing Stores
- 4482 Shoe Stores
- 4483 Jewelry, Luggage, and Leather Goods Stores
- 4511 Sporting Goods, Hobby, and Musical Instrument Stores
- 4521 Department Stores
- 4529 Other General Merchandise Stores
- 4532 Office Supplies, Stationery, and Gift Stores
- 4533 Used Merchandise Stores
- 4542 Vending Machine Operators

Health Care Services

- 6211 Offices of Physicians
- 6212 Offices of Dentists
- 6213 Offices of Other Health Practitioners
- 6214 Outpatient Care Centers
- 6215 Medical and Diagnostic Laboratories
- 6216 Home Health Care Services
- 6219 Other Ambulatory Health Care Services
- 6221 General Medical and Surgical Hospitals
- 6222 Psychiatric and Substance Abuse Hospitals
- 6223 Specialty (except Psychiatric and Substance Abuse) Hospitals
- 6231 Nursing Care Facilities (Skilled Nursing Facilities)
- 6232 Residential Intellectual and Developmental Disability, Mental Health, and Substance Abuse Facilities
- 6233 Continuing Care Retirement Communities and Assisted Living Facilities for the Elderly
- 6239 Other Residential Care Facilities

Education and Training

- 6111 Elementary and Secondary Schools
- 6112 Junior Colleges
- 6113 Colleges, Universities, and Professional Schools
- 6114 Business Schools and Computer and Management Training
- 6115 Technical and Trade Schools
- 6116 Other Schools and Instruction
- 6117 Educational Support Services

Construction Materials and Services

- 2123 Nonmetallic Mineral Mining and Quarrying
- 2213 Water, Sewage and Other Systems
- 2361 Residential Building Construction
- 2362 Nonresidential Building Construction
- 2372 Land Subdivision
- 2373 Highway, Street, and Bridge Construction
- 2379 Other Heavy and Civil Engineering Construction
- 2381 Foundation, Structure, and Building Exterior Contractors
- 2382 Building Equipment Contractors
- 2383 Building Finishing Contractors
- 2389 Other Specialty Trade Contractors
- 3211 Sawmills and Wood Preservation

INDUSTRY CLUSTER DEFINITIONS

Construction Materials and Services (Continued)

- 3271 Clay Product and Refractory Manufacturing
- 3272 Glass and Glass Product Manufacturing
- 3273 Cement and Concrete Product Manufacturing
- 3274 Lime and Gypsum Product Manufacturing
- 3279 Other Nonmetallic Mineral Product Manufacturing
- 3339 Other General Purpose Machinery Manufacturing
- 3351 Electric Lighting Equipment Manufacturing

Business Services

- 5511 Management of Companies and Enterprises
- 5611 Office Administrative Services
- 5612 Facilities Support Services
- 5613 Employment Services
- 5614 Business Support Services
- 5419 Other Professional, Scientific, and Technical
- 5616 Investigation and Security Services
- 5617 Services to Buildings and Dwellings
- 5619 Other Support Services
- 5621 Waste Collection
- 5622 Waste Treatment and Disposal
- 5629 Remediation and Other Waste Management Services

Social Services

- 6241 Individual and Family Services
- 6242 Community Food and Housing, and Emergency and Other Relief Services
- 6243 Vocational Rehabilitation Services
- 6244 Child Day Care Services

Professional and Technical Services

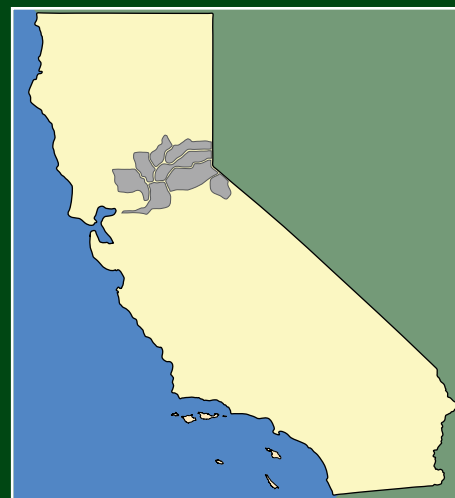
- 5411 Legal Services
- 5412 Accounting, Tax Preparation, Bookkeeping, and Payroll Services
- 5413 Architectural, Engineering, and Related Services
- 5414 Specialized Design Services
- 5416 Management, Scientific, and Technical Consulting Services
- 5418 Advertising, Public Relations, and Related Services
- 5419 Other Professional, Scientific, and Technical Services

Financial Services and Real Estate

- 5211 Monetary Authorities-Central Bank
- 5221 Depository Credit Intermediation
- 5222 Nondepository Credit Intermediation
- 5223 Activities Related to Credit Intermediation
- 5231 Securities and Commodity Contracts Intermediation and Brokerage
- 5232 Securities and Commodity Exchanges
- 5239 Other Financial Investment Activities
- 5241 Insurance Carriers
- 5242 Agencies, Brokerages, and Other Insurance Related Activities
- 5251 Insurance and Employee Benefit Funds
- 5259 Other Investment Pools and Funds
- 5311 Lessors of Real Estate
- 5312 Offices of Real Estate Agents and Brokers
- 5313 Activities Related to Real Estate

Information and Communication Technologies

- 3341 Computer and Peripheral Equipment Manufacturing
- 3342 Communications Equipment Manufacturing
- 3344 Semiconductor and Other Electronic Component Manufacturing
- 3359 Other Electrical Equipment and Component Manufacturing
- 4251 Wholesale Electronic Markets and Agents and Brokers
- 5112 Software Publishers
- 5171 Wired Telecommunications Carriers
- 5172 Wireless Telecommunications Carriers (except Satellite)
- 5174 Satellite Telecommunications
- 5179 Other Telecommunications
- 5182 Data Processing, Hosting, and Related Services
- 5191 Other Information Services
- 5415 Computer Systems Design and Related Services
- 8112 Electronic and Precision Equipment Repair and Maintenance



Occupational Analysis: Hospitality and Tourism Cluster

Sacramento Economic Market

May 2015

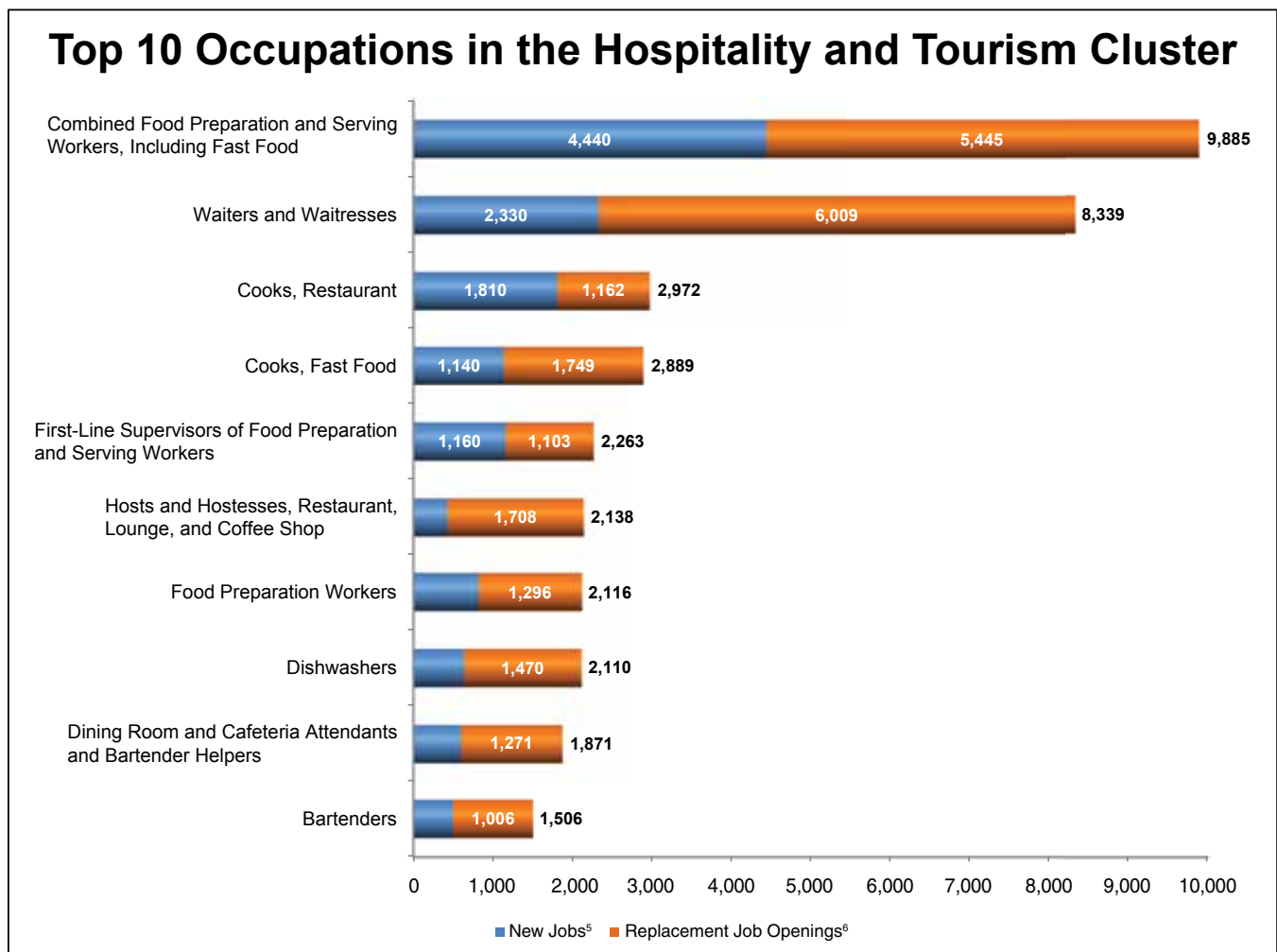
Alpine, El Dorado, Nevada, Placer, Sacramento, Sutter, Yolo, and Yuba Counties

What is the Hospitality and Tourism Cluster?

The Hospitality and Tourism cluster is comprised of 14 industries that provide goods and services related to lodging, food, recreation, travel, and sightseeing transportation. Establishments in this cluster include restaurants, hotels, casinos, golf courses, marinas, and fitness centers. The workers employed within this cluster share skills and work activities both within the cluster and in many other industry clusters, suggesting the potential for skills transference and upward mobility with additional training.

Top 10 Occupations in the Hospitality and Tourism Cluster

The graph below identifies the top 10 occupations in the Hospitality and Tourism cluster, based on the Sacramento Economic Market's new job growth plus replacement openings. In sum, these 10 occupations represent nearly three-quarters of the 48,826 total job openings projected in this cluster between 2012 and 2022. Moreover, many share the same required skills such as active listening, coordination, reading comprehension, social perceptiveness, and speaking.⁴



Source: California Employment Development Department, *Projections of Employment 2012-2022*. Industry and occupational employment projections for 2012-2022 in this report may not be directly comparable to the published 2012-2022 employment projections available online at www.labormarketinfo.edd.ca.gov.

⁴ U.S. Department of Labor's [Occupational Information Network \(O*NET\)](http://www.onetonline.org) at www.onetonline.org.

⁵ New jobs are only openings due to growth and do not include job declines. If an occupation's employment change is negative, there is no job growth and new jobs are set to zero.

⁶ Replacement job openings estimate the number of job openings created when workers retire or permanently leave an occupation and need to be replaced.

Top 10 Occupations and Recent Job Demand in the Hospitality and Tourism Cluster

The table below further profiles the Sacramento Economic Market's top 10 occupations in the Hospitality and Tourism cluster by listing the total job openings for 2012-2022, median hourly and annual wages, and entry-level education requirements. Also included are online job advertisements extracted from The Conference Board Help Wanted OnLine™ (HWOL) data series over a recent 120-day period. HWOL compiles, analyzes, and categorizes job advertisements from numerous online job boards, including CalJOBSSM (www.caljobs.ca.gov), California's online job listing system.

Occupations	Total Job Openings ⁷ (2012-2022)	Median Hourly Wage (2014)	Median Annual Wage (2014)	Entry Level Education ⁸	HWOL Job Ads ⁹ (120 days)
Combined Food Preparation and Serving Workers, Including Fast Food	9,885	\$9.36	\$19,464	Less than high school	669
Waiters and Waitresses	8,339	\$9.19	\$19,108	Less than high school	421
Cooks, Restaurant	2,972	\$11.53	\$23,969	Less than high school	471
Cooks, Fast Food	2,889	\$9.22	\$19,168	Less than high school	57
First-Line Supervisors of Food Preparation and Serving Workers	2,263	\$14.08	\$29,294	High school diploma or equivalent	975
Hosts and Hostesses, Restaurant, Lounge, and Coffee Shop	2,138	\$9.25	\$19,229	Less than high school	76
Food Preparation Workers	2,116	\$9.55	\$19,852	Less than high school	176
Dishwashers	2,110	\$9.37	\$19,488	Less than high school	227
Dining Room and Cafeteria Attendants and Bartender Helpers	1,871	\$9.19	\$19,105	Less than high school	118
Bartenders	1,506	\$9.34	\$19,435	Less than high school	122

Source: California Employment Development Department, *Projections of Employment 2012-2022*; *Occupational Employment Statistics Wage Survey*, updated to 4th Q, 2014; The Conference Board Help Wanted OnLine™ (HWOL) Data Series, 120-day period ending April 30, 2015.

⁷ Total job openings are the sum of new jobs and replacement job openings.

⁸ U.S. Department of Labor, Bureau of Labor Statistics (BLS) 2012 education levels.

⁹ Totals represent job advertisements from employers in all industries. One job opening may be represented in more than one job advertisement.

Top Occupations for the Hospitality and Tourism Cluster by Education Level

The table below identifies the occupations with the most total job openings, categorized by Bureau of Labor Statistics (BLS) 2012 entry-level education requirements, within the Hospitality and Tourism cluster. The table includes the Sacramento Economic Market's projected total job openings and median hourly and annual wages. In addition, recent totals of online job advertisements over 120-day period are included. Grouping occupations by education levels allows individuals to better gauge the potential for skills transference and upward mobility within the cluster.

Occupations	Total Job Openings ¹⁰ (2012-2022)	Median Hourly Wage (2014)	Median Annual Wage (2014)	HWOL Job Ads (120 days)
Requires a Bachelor's Degree or Higher				
Coaches and Scouts	333	N/A	\$25,316	243
General and Operations Managers	293	\$45.89	\$95,459	481
Recreation Workers	73	\$11.20	\$23,296	132
Meeting, Convention, and Event Planners	66	\$22.09	\$45,957	66
Sales Managers	37	\$49.99	\$103,969	633
Requires Some College, Postsecondary Non-Degree Award, or Associate's Degree				
Massage Therapists	30	\$17.71	\$36,850	171
Skincare Specialists	21	\$12.70	\$26,403	74
Web Developers	18	\$31.68	\$65,907	894
Hairdressers, Hairstylists, and Cosmetologists	12	\$11.53	\$23,973	343
Computer User Support Specialists	5	\$26.45	\$55,024	1,223
Requires a High School Diploma or Equivalent or Less				
Combined Food Preparation and Serving Workers, Including Fast Food	9,885	\$9.36	\$19,464	669
Waiters and Waitresses	8,339	\$9.19	\$19,108	421
Cooks, Restaurant	2,972	\$11.53	\$23,969	471
Cooks, Fast Food	2,889	\$9.22	\$19,168	57
First-Line Supervisors of Food Preparation and Serving Workers	2,263	\$14.08	\$29,294	975

Source: California Employment Development Department, *Projections of Employment 2012-2022*; *Occupational Employment Statistics Wage Survey*, updated to 4th Q, 2014; *The Conference Board Help Wanted OnLine™ (HWOL) Data Series*, 120-day period ending April 30, 2015.

¹⁰ Total job openings are the sum of new jobs and replacement job openings.

Skill Requirements in the Hospitality and Tourism Cluster

The table below lists the 10 top skills required for top occupations in the Hospitality and Tourism cluster, categorized by entry-level education requirements. Critical thinking is the most commonly shared skill, followed by monitoring, speaking, and active listening. The skills and work activities identified for each occupation are from the U.S. Department of Labor's Occupational Information Network (O*NET).

Occupations	Skills																						
	Active Learning	Active Listening	Complex Problem Solving	Coordination	Critical Thinking	Instructing	Judgment and Decision Making	Learning Strategies	Management of Personnel Resources	Monitoring	Negotiation	Operations Analysis	Persuasion	Programming	Quality Control Analysis	Reading Comprehension	Service Orientation	Social Perceptiveness	Speaking	Systems Evaluation	Time Management	Writing	
Requires a Bachelor's Degree or Higher																							
Coaches and Scouts		●			●	●	●	●	●	●									●	●	●		
General and Operations Managers	●	●		●	●				●	●						●		●	●			●	
Recreation Workers		●		●	●	●			●	●						●	●	●	●				
Meeting, Convention, and Event Planners		●		●	●					●	●					●	●	●	●		●		
Sales Managers				●	●		●		●	●			●					●	●		●	●	
Requires Some College, Postsecondary Non-Degree Award, or Associate's Degree																							
Massage Therapists	●	●			●	●				●						●	●	●	●			●	
Skincare Specialists	●	●		●	●	●				●						●	●	●	●				
Web Developers	●	●	●		●	●				●		●		●		●						●	
Hairdressers, Hairstylists, and Cosmetologists	●	●			●	●		●		●		●					●	●	●				
Computer User Support Specialists	●	●		●	●	●				●						●	●		●			●	
Requires a High School Diploma or Equivalent or Less																							
Combined Food Preparation and Serving Workers, Including Fast Food		●		●	●	●		●				●				●	●	●	●				
Waiters and Waitresses		●		●	●			●		●		●				●	●	●	●				
Cooks, Restaurant	●	●		●	●	●				●				●					●		●	●	
Cooks, Fast Food	●	●		●	●					●		●				●	●	●	●				
First-Line Supervisors of Food Preparation and Serving Workers				●	●				●	●						●	●	●	●	●	●	●	

Source: U.S. Department of Labor's [Occupational Information Network \(O*NET\)](http://www.onetonline.org) at www.onetonline.org.

Work Activities in the Hospitality and Tourism Cluster

The table below lists the 10 top work activities required for top occupations in the Hospitality and Tourism cluster, categorized by entry-level education requirements. The most common include establishing and maintaining interpersonal relationships; organizing, planning, and prioritizing work; communicating with supervisors, peers, or subordinates; and identifying objects, actions, and events.

Occupations	Work Activities																									
	Assisting and Caring for Others	Coaching and Developing Others	Communicating with Persons Outside Organization	Communicating with Supervisors, Peers, or Subordinates	Coordinating the Work and Activities of Others	Establishing and Maintaining Interpersonal Relationships	Getting Information	Guiding, Directing, and Motivating Subordinates	Handling and Moving Objects	Identifying Objects, Actions, and Events	Interacting With Computers	Judging the Qualities of Things, Services, or People	Making Decisions and Solving Problems	Monitor Processes, Materials, or Surroundings	Monitoring and Controlling Resources	Organizing, Planning, and Prioritizing Work	Performing for or Working Directly with the Public	Performing General Physical Activities	Processing Information	Provide Consultation and Advice to Others	Resolving Conflicts and Negotiating with Others	Scheduling Work and Activities	Selling or Influencing Others	Thinking Creatively	Training and Teaching Others	Updating and Using Relevant Knowledge
Requires a Bachelor's Degree or Higher																										
Coaches and Scouts		●			●	●			●		●				●		●			●	●			●		
General and Operations Managers			●	●	●	●						●		●	●					●	●		●			
Recreation Workers	●	●		●	●	●									●	●	●					●	●			
Meeting, Convention, and Event Planners			●	●		●	●		●	●						●	●				●					●
Sales Managers		●	●	●	●	●		●				●			●					●		●				
Requires Some College, Postsecondary Non-Degree Award, or Associate's Degree																										
Massage Therapists	●	●			●	●			●			●			●	●	●									●
Skincare Specialists	●				●	●		●					●		●	●						●	●			●
Web Developers			●			●			●	●		●			●			●	●				●			●
Hairdressers, Hairstylists, and Cosmetologists	●	●			●	●		●							●	●			●			●				●
Computer User Support Specialists			●		●	●		●	●		●				●			●					●			●
Requires a High School Diploma or Equivalent or Less																										
Combined Food Preparation and Serving Workers, Including Fast Food		●		●	●	●	●		●	●						●				●						●
Waiters and Waitresses				●	●	●	●		●	●						●	●			●		●				
Cooks, Restaurant				●	●	●		●	●		●			●	●	●										●
Cooks, Fast Food		●	●		●			●	●						●	●				●		●				●
First-Line Supervisors of Food Preparation and Serving Workers	●			●	●		●	●	●						●	●	●			●						

Source: U.S. Department of Labor's [Occupational Information Network \(O*NET\)](http://www.onetonline.org) at www.onetonline.org.

Related Occupations for the Hospitality and Tourism Cluster

The table below lists top occupations in the Hospitality and Tourism cluster by entry-level education requirements and provides a sample of related occupations. These related occupations match many of the skills, education, and work experience needed for the top Hospitality and Tourism cluster occupations.

Hospitality and Tourism Occupations	Related Occupations
Requires a Bachelor's Degree or Higher	
Coaches and Scouts	<ul style="list-style-type: none"> • Directors, Religious Activities and Education • Career/Technical Education Teachers, Middle School • Recreation Workers
General and Operations Managers	<ul style="list-style-type: none"> • First-Line Supervisors of Office and Administrative Support Workers • Logistics Managers • Administrative Services Managers
Recreation Workers	<ul style="list-style-type: none"> • Preschool Teachers, Except Special Education • Residential Advisors • Recreational Therapists
Meeting, Convention, and Event Planners	<ul style="list-style-type: none"> • Human Resources Specialists • Public Relations Specialists • Advertising and Promotions Managers
Sales Managers	<ul style="list-style-type: none"> • Marketing Managers • Training and Development Managers • Public Relations and Fundraising Managers
Requires Some College, Postsecondary Non-Degree Award, or Associate's Degree	
Massage Therapists	<ul style="list-style-type: none"> • Skincare Specialists • Fitness Trainers and Aerobics Instructors • Barbers
Skincare Specialists	<ul style="list-style-type: none"> • Hairdressers, Hairstylists, and Cosmetologists • Manicurists and Pedicurists • Self-Enrichment Education Teachers
Web Developers	<ul style="list-style-type: none"> • Web Administrators • Software Quality Assurance Engineers and Testers • Computer Systems Analysts
Hairdressers, Hairstylists, and Cosmetologists	<ul style="list-style-type: none"> • Dental Assistants • Fitness Trainers and Aerobics Instructors • Manicurists and Pedicurists
Computer User Support Specialists	<ul style="list-style-type: none"> • Audio-Visual and Multimedia Collections Specialists • Computer, Automated Teller, and Office Machine Repairers • Computer Operators
Requires a High School Diploma or Equivalent or Less	
Combined Food Preparation and Serving Workers, Including Fast Food	<ul style="list-style-type: none"> • Cooks, Fast Food • Counter Attendants, Cafeteria, Food Concession, and Coffee Shop • Stock Clerks, Sales Floor
Waiters and Waitresses	<ul style="list-style-type: none"> • Hosts and Hostesses, Restaurant, Lounge, and Coffee Shop • Dining Room and Cafeteria Attendants and Bartender Helpers • Cashiers
Cooks, Restaurant	<ul style="list-style-type: none"> • Cooks, Institution and Cafeteria • Bakers • Butchers and Meat Cutters
Cooks, Fast Food	<ul style="list-style-type: none"> • Food Preparation Workers • Counter Attendants, Cafeteria, Food Concession, and Coffee Shop • Combined Food Preparation and Serving Workers, Including Fast Food
First-Line Supervisors of Food Preparation and Serving Workers	<ul style="list-style-type: none"> • Bartenders • Dietetic Technicians • Chefs and Head Cooks

Source: U.S. Department of Labor's [Occupational Information Network \(O*NET\)](http://www.onetonline.org) at www.onetonline.org.

Employer Demand for the Hospitality and Tourism Cluster

The following table lists the Sacramento Economic Market employers in the Hospitality and Tourism cluster who posted the most job advertisements during the 120-day period ending April 30, 2015. The table also includes the number of job advertisements from the previous year's period, as well as the numerical change and year-over percent change in these postings for the same 120-day period.

Hospitality and Tourism Cluster Employers	Recent Job Advertisements ¹¹ (120-day period)	Prior Year Job Advertisements (120-day period)	Numerical Change	Year-Over Percent Change (HWOL Job Advertisements)
Taco Bell	164	13	151	1,161.5%
Vail Resorts	115	228	-113	-49.6%
Chipotle	101	11	90	818.2%
Life Time Fitness, Inc.	97	1	96	9,600.0%
Cache Creek Casino Resort	74	106	-32	-30.2%
Marriott	72	78	-6	-7.7%
Hyatt	51	29	22	75.9%
Ritz-Carlton	41	17	24	141.2%
Sodexo, Inc.	33	26	7	26.9%
Red Robin	25	16	9	56.3%
Boston Market Corporation	24	4	20	500.0%
24 Hour Fitness	21	91	-70	-76.9%
G6 Hospitality, LLC	21	2	19	950.0%
La Quinta Inn	20	4	16	400.0%
Aramark Corporation	19	23	-4	-17.4%
Interstate Hotels & Resorts	18	0	18	—
Travelers Insurance	18	22	-4	-18.2%
Dish Network Corporation	17	12	5	41.7%
HMSHost	15	9	6	66.7%
DELL	15	6	9	150.0%

¹¹ Totals do not include employers with anonymous job advertisements.

Instructional Programs for the Top Hospitality and Tourism Cluster Occupations

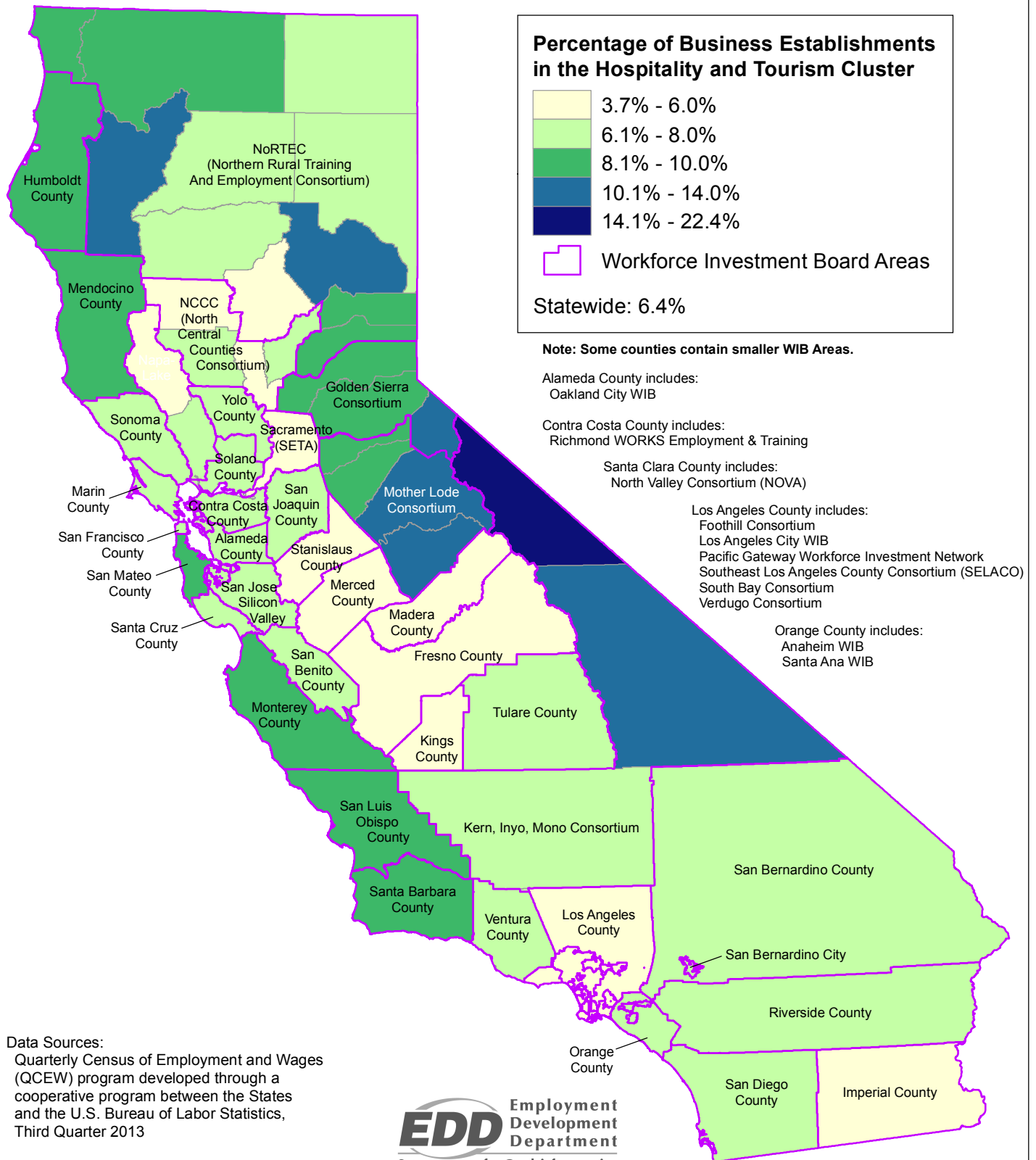
The table below provides examples of instructional programs related to some of the top occupations in the Hospitality and Tourism cluster, particularly those that require less than a bachelor's degree. These programs train individuals for occupations throughout many industries and are not limited to the Hospitality and Tourism cluster. To view a more complete list of training programs, select the source links under the table below. The Taxonomy of Programs categorizes and describes instructional programs only for California Community Colleges.

Occupations	Classification of Instructional Program (CIP)		Taxonomy of Programs (TOP)	
	CIP Code	CIP Title	TOP Code	TOP Title
Massage Therapists	51.3501	Massage Therapy/Therapeutic Massage	126200	Massage Therapy
	51.3502	Asian Bodywork Therapy		
	51.3503	Somatic Bodywork		
Skincare Specialists	12.0401	Cosmetology/Cosmetologist, General	N/A	N/A
	12.0408	Facial Treatment Specialist/Facialist		
	12.0409	Aesthetician/Esthetician and Skin Care Specialist		
Web Developers	11.0201	Computer Programming/Programmer, General	061430	Website Design and Development
	11.0701	Computer Science	070600	Computer Science (transfer)
	11.0801	Web Page, Digital/Multimedia and Information Resources Design	070700	Computer Software Development
Hairdressers, Hairstylists, and Cosmetologists	12.0401	Cosmetology/Cosmetologist, General	300700	Cosmetology and Barbering
	12.0404	Electrolysis/Electrology and Electrolysis Technician	300700	Cosmetology and Barbering
	12.0406	Make-Up Artist/Specialist		
Computer User Support Specialists	01.0106	Agricultural Business Technology	070820	Computer Support
	11.1006	Computer Support Specialist		
	51.0709	Medical Office Computer Specialist/Assistant		
Cooks, Restaurant	12.0500	Cooking and Related Culinary Arts, General	130630	Culinary Arts
	12.0503	Culinary Arts/Chef Training		
First-Line Supervisors of Food Preparation and Serving Workers	12.0500	Cooking and Related Culinary Arts, General	130620	Dietetic Services and Management
	12.0503	Culinary Arts/Chef Training	130630	Culinary Arts
	12.0504	Restaurant, Culinary, and Catering Management/Manager	130710	Restaurant and Food Services and Management

Source: U.S. Department of Education [Integrated Postsecondary Education Data System \(IPEDS\)](http://www.nces.ed.gov/ipeds) at www.nces.ed.gov; [California Community Colleges TOP-to-CIP Crosswalk 7th Edition \(2010\)](http://www.cccco.edu), www.cccco.edu.

California Hospitality and Tourism Cluster

Percentage of Total County Establishments, 2013



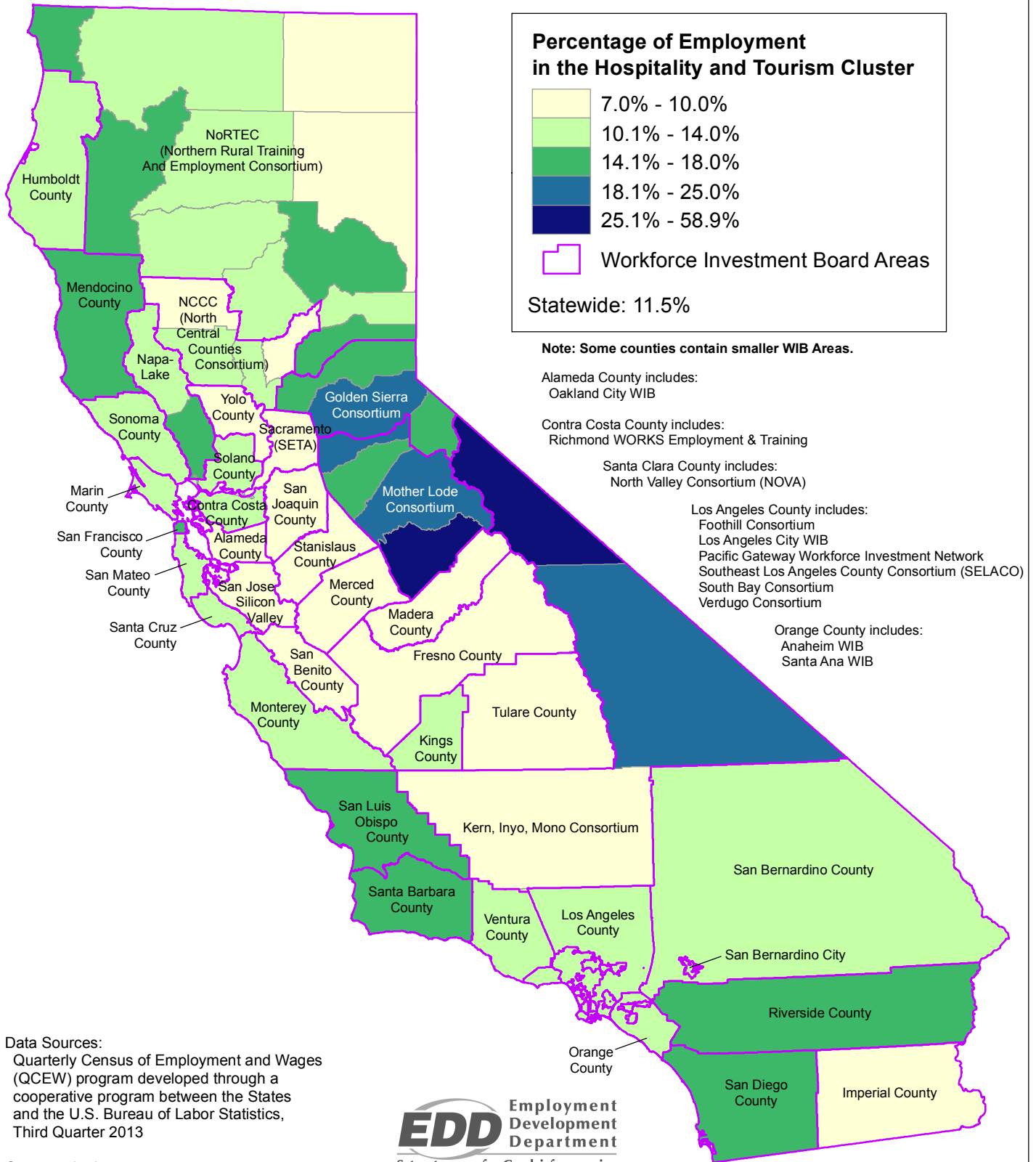
Data Sources:
 Quarterly Census of Employment and Wages (QCEW) program developed through a cooperative program between the States and the U.S. Bureau of Labor Statistics, Third Quarter 2013

Cartography by:
 Labor Market Information Division
 California Employment Development Department
<http://www.labormarketinfo.edd.ca.gov>
 July 2014



California Hospitality and Tourism Cluster

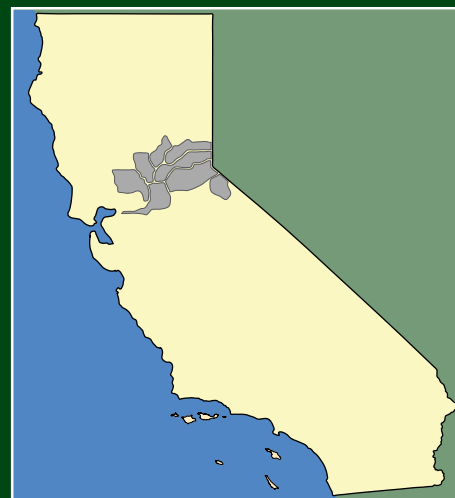
Percentage of Total County Employment, 2013



Data Sources:
Quarterly Census of Employment and Wages (QCEW) program developed through a cooperative program between the States and the U.S. Bureau of Labor Statistics, Third Quarter 2013

Cartography by:
Labor Market Information Division
California Employment Development Department
<http://www.labormarketinfo.edd.ca.gov>
July 2014





Occupational Analysis: Retail Cluster

Sacramento Economic Market

May 2015

Alpine, El Dorado, Nevada, Placer, Sacramento, Sutter, Yolo, and Yuba Counties

What is the Retail Cluster?

The Retail cluster is composed of 19 industries involved in the sales of goods both familiar and esoteric, everything from groceries and automobiles to musical instruments and surfboards. The workers employed within this cluster span all skill levels and share skills and work activities both within the cluster and in many other industry clusters, suggesting the potential for skills transference and upward mobility with additional training.

Top 10 Occupations in the Retail Cluster

The graph below identifies the top 10 occupations in the Retail cluster, based on the Sacramento Economic Market's new job growth plus replacement openings. In sum, these 10 occupations represent more than three-quarters of the 44,928 total job openings projected in this cluster between 2012 and 2022. Moreover, many share the same required skills such as active listening, critical thinking, reading comprehension, and speaking.¹²



Source: California Employment Development Department, *Projections of Employment 2012-2022*. Industry and occupational employment projections for 2012-2022 in this report may not be directly comparable to the published 2012-2022 employment projections available online at www.labormarketinfo.edd.ca.gov.

¹² U.S. Department of Labor's *Occupational Information Network (O*NET)* at www.onetonline.org.

¹³ New jobs are only openings due to growth and do not include job declines. If an occupation's employment change is negative, there is no job growth and new jobs are set to zero.

¹⁴ Replacement job openings estimate the number of job openings created when workers retire or permanently leave an occupation and need to be replaced.

Top 10 Occupations and Recent Job Demand in the Retail Cluster

The table below further profiles the Sacramento Economic Market's top 10 occupations in the Retail cluster by listing the total job openings for 2012-2022, median hourly and annual wages, and entry-level education requirements. Also included are online job advertisements extracted from The Conference Board Help Wanted OnLine™ (HWOL) data series over a 120-day period. HWOL compiles, analyzes, and categorizes job advertisements from numerous online job boards, including CalJOBSSM (www.caljobs.ca.gov), California's online job listing system.

Occupations	Total Job Openings ¹⁵ (2012-2022)	Median Hourly Wage (2014)	Median Annual Wage (2014)	Entry Level Education ¹⁶	HWOL Job Ads ¹⁷ (120 days)
Retail Salespersons	12,399	\$11.55	\$24,041	Less than high school	1,571
Cashiers	10,309	\$10.62	\$22,087	Less than high school	465
Stock Clerks and Order Fillers	3,672	\$12.23	\$25,434	Less than high school	490
First-Line Supervisors of Retail Sales Workers	3,042	\$18.33	\$38,114	High school diploma or equivalent	1,332
Combined Food Preparation and Serving Workers, Including Fast Food	1,282	\$9.36	\$19,464	Less than high school	669
Laborers and Freight, Stock, and Material Movers, Hand	1,280	\$12.37	\$25,733	Less than high school	468
Automotive Service Technicians and Mechanics	937	\$22.40	\$46,603	High school diploma or equivalent	622
Parts Salespersons	587	\$15.60	\$32,446	Less than high school	77
General and Operations Managers	581	\$45.89	\$95,459	Bachelor's degree	481
Customer Service Representatives	561	\$17.98	\$37,392	High school diploma or equivalent	1,732

Source: California Employment Development Department, *Projections of Employment 2012-2022; Occupational Employment Statistics Wage Survey, updated to 4th Q, 2014; The Conference Board Help Wanted OnLine™ (HWOL) Data Series, 120-day period ending April 30, 2015.*

¹⁵ Total job openings are the sum of new jobs and replacement job openings.

¹⁶ U.S. Department of Labor, Bureau of Labor Statistics (BLS) 2012 education levels.

¹⁷ Totals represent job advertisements from employers in all industries. One job opening may be represented in more than one job advertisement.

Top Occupations for the Retail Cluster by Education Level

The table below identifies the occupations with the most total job openings, categorized by Bureau of Labor Statistics (BLS) 2012 entry-level education requirements, within the Retail cluster. The table includes the Sacramento Economic Market's projected total job openings and median hourly and annual wages. In addition, recent totals of online job advertisements over 120-day period are included. Grouping occupations by education levels allows individuals to better gauge the potential for skills transference and upward mobility within the cluster.

Occupations	Total Job Openings ¹⁸ (2012-2022)	Median Hourly Wage (2014)	Median Annual Wage (2014)	HWOL Job Ads (120 days)
Requires a Bachelor's Degree or Higher				
General and Operations Managers	581	\$45.89	\$95,459	481
Pharmacists	313	\$66.44	\$138,178	220
Sales Managers	288	\$49.99	\$103,969	633
Loan Officers	60	\$29.61	\$61,587	596
Cost Estimators	59	\$31.60	\$65,725	117
Requires Some College, Postsecondary Non-Degree Award, or Associate's Degree				
Heavy and Tractor-Trailer Truck Drivers	85	\$19.01	\$39,542	2,195
Computer, Automated Teller, and Office Machine Repairers	45	\$19.31	\$40,164	9
First-Line Supervisors of Production and Operating Workers	38	\$28.03	\$58,293	449
Hairdressers, Hairstylists, and Cosmetologists	37	\$11.53	\$23,973	343
Computer User Support Specialists	16	\$26.45	\$55,024	1,223
Requires a High School Diploma or Equivalent or Less				
Retail Salespersons	12,399	\$11.55	\$24,041	1,571
Cashiers	10,309	\$10.62	\$22,087	465
Stock Clerks and Order Fillers	3,672	\$12.23	\$25,434	490
First-Line Supervisors of Retail Sales Workers	3,042	\$18.33	\$38,114	1,332
Combined Food Preparation and Serving Workers, Including Fast Food	1,282	\$9.36	\$19,464	669

Source: California Employment Development Department, *Projections of Employment 2012-2022*; *Occupational Employment Statistics Wage Survey*, updated to 4th Q, 2014; *The Conference Board Help Wanted OnLine™ (HWOL) Data Series*, 120-day period ending April 30, 2015.

¹⁸ Total job openings are the sum of new jobs and replacement job openings.

Skill Requirements in the Retail Cluster

The table below lists the 10 top skills required for top occupations in the Retail cluster, categorized by entry-level education requirements. Critical thinking and speaking are the most commonly shared skills, followed by active listening monitoring, and reading comprehension. The skills and work activities identified for each occupation are from the U.S. Department of Labor's Occupational Information Network (O*NET).

Occupations	Skills																									
	Active Learning	Active Listening	Complex Problem Solving	Coordination	Critical Thinking	Equipment Maintenance	Instruction	Judgment and Decision Making	Learning Strategies	Management of Financial Resources	Management of Personnel Resources	Mathematics	Monitoring	Negotiation	Operation and Control	Operation Monitoring	Persuasion	Reading Comprehension	Repairing	Science	Service Orientation	Social Perceptiveness	Speaking	Time Management	Troubleshooting	Writing
Requires a Bachelor's Degree or Higher																										
General and Operations Managers	●	●		●	●						●		●					●				●	●			●
Pharmacists	●	●			●		●						●					●		●		●	●			●
Sales Managers				●	●			●		●		●					●					●	●	●		●
Loan Officers	●	●	●		●			●				●						●			●		●			●
Cost Estimators	●	●	●		●					●		●	●					●					●			●
Requires Some College, Postsecondary Non-Degree Award, or Associate's Degree																										
Heavy and Tractor-Trailer Truck Drivers		●	●		●	●							●		●	●		●					●	●		
Computer, Automated Teller, and Office Machine Repairers	●	●			●								●		●	●		●	●				●		●	
First-Line Supervisors of Production and Operating Workers		●		●	●					●		●						●				●	●	●		●
Hairdressers, Hairstylists, and Cosmetologists	●	●			●		●	●				●					●				●	●	●			
Computer User Support Specialists	●	●		●	●		●					●						●			●	●				●
Requires a High School Diploma or Equivalent or Less																										
Retail Salespersons		●			●								●	●				●	●			●	●	●		●
Cashiers		●		●	●								●					●				●	●	●	●	●
Stock Clerks and Order Fillers ¹⁹	●	●	●	●	●								●					●				●	●	●		
First-Line Supervisors of Retail Sales Workers				●		●				●		●	●					●	●			●	●	●		
Combined Food Preparation and Serving Workers, Including Fast Food		●		●	●		●	●										●	●			●	●	●		

Source: U.S. Department of Labor's [Occupational Information Network \(O*NET\)](http://www.onetonline.org) at www.onetonline.org.

¹⁹ Skills represent Stock Clerks, Sales Floor, a specialty occupation of Stock Clerks and Order Fillers.

Work Activities in the Retail Cluster

The table below lists the 10 top work activities required for top occupations in the Retail cluster, categorized by entry-level education requirements. The most common include establishing and maintaining interpersonal relationships; organizing, planning, and prioritizing work, and communicating with supervisors, peers, or subordinates.

Occupations	Work Activities																																			
	Analyzing Data or Information	Assisting and Caring for Others	Coaching and Developing Others	Communicating with Persons Outside Organization	Communicating with Supervisors, Peers, or Subordinates	Controlling Machines and Processes	Coordinating the Work and Activities of Others	Documenting/Recording Information	Establishing and Maintaining Interpersonal Relationships	Estimating the Quantifiable Characteristics of Products, Events, or Information	Evaluating Information to Determine Compliance with Standards	Getting Information	Guiding, Directing, and Motivating Subordinates	Handling and Moving Objects	Identifying Objects, Actions, and Events	Inspecting Equipment, Structures, or Material	Interacting With Computers	Making Decisions and Solving Problems	Monitor Processes, Materials, or Surroundings	Monitoring and Controlling Resources	Operating Vehicles, Mechanized Devices, or Equipment	Organizing, Planning, and Prioritizing Work	Performing for or Working Directly with the Public	Performing General Physical Activities	Processing Information	Provide Consultation and Advice to Others	Repairing and Maintaining Electronic Equipment	Repairing and Maintaining Mechanical Equipment	Resolving Conflicts and Negotiating with Others	Scheduling Work and Activities	Selling or Influencing Others	Thinking Creatively	Training and Teaching Others	Updating and Using Relevant Knowledge		
Requires a Bachelor's Degree or Higher																																				
General and Operations Managers				●	●	●	●	●											●	●	●							●	●	●						
Pharmacists	●	●						●		●				●				●			●	●	●											●		
Sales Managers			●	●	●	●	●	●				●						●				●							●		●					
Loan Officers				●				●			●							●				●	●	●	●			●							●	
Cost Estimators	●			●			●	●	●	●	●							●				●	●	●	●										●	
Requires Some College, Postsecondary Non-Degree Award, or Associate's Degree																																				
Heavy and Tractor-Trailer Truck Drivers						●		●			●	●	●	●	●					●	●	●														
Computer, Automated Teller, and Office Machine Repairers				●				●					●		●	●						●					●	●				●			●	
First-Line Supervisors of Production and Operating Workers			●	●	●	●	●	●				●	●													●			●	●						
Hairdressers, Hairstylists, and Cosmetologists	●		●					●			●		●									●	●		●							●			●	
Computer User Support Specialists				●				●			●			●	●							●		●								●			●	
Requires a High School Diploma or Equivalent or Less																																				
Retail Salespersons			●	●			●						●					●				●	●								●	●			●	
Cashiers			●	●			●			●			●					●				●	●	●				●	●							
Stock Clerks and Order Fillers ²⁰				●	●		●						●	●								●	●	●									●	●		
First-Line Supervisors of Retail Sales Workers		●	●				●				●		●									●	●						●	●						
Combined Food Preparation and Serving Workers, Including Fast Food		●	●			●	●				●		●	●								●							●						●	

Source: U.S. Department of Labor's [Occupational Information Network \(O*NET\)](http://www.onetonline.org) at www.onetonline.org.

²⁰ Work Activities represent Stock Clerks, Sales Floor, a specialty occupation of Stock Clerks and Order Fillers.

Related Occupations for the Retail Cluster

The table below lists top occupations in the Retail cluster by entry-level education requirements and provides a sample of related occupations. These related occupations match many of the skills, education, and work experience needed for the top Retail cluster occupations.

Retail Occupations	Related Occupations
Requires a Bachelor's Degree or Higher	
General and Operations Managers	<ul style="list-style-type: none"> Logistics Managers Purchasing Managers Storage and Distribution Managers
Pharmacists	<ul style="list-style-type: none"> Health Specialties Teachers, Postsecondary Medical Scientists, Except Epidemiologists Nursing Instructors and Teachers, Postsecondary
Sales Managers	<ul style="list-style-type: none"> Advertising and Promoting Managers Financial Managers, Branch or Department Marketing Managers
Loan Officers	<ul style="list-style-type: none"> Custom Brokers Insurance Sales Agents Personal Financial Advisors
Cost Estimators	<ul style="list-style-type: none"> Risk Management Specialists Market Research Analysts and Marketing Specialists Logistics Managers
Requires Some College, Postsecondary Non-Degree Award, or Associate's Degree	
Heavy and Tractor-Trailer Truck Drivers	<ul style="list-style-type: none"> Light Truck or Delivery Services Drivers Motorboat Operators Pile-Driver Operators
Computer, Automated Teller, and Office Machine Repairers	<ul style="list-style-type: none"> Audio and Video Equipment Technicians Computer User Support Specialists Radio Mechanics
First-Line Supervisors of Production and Operating Workers	<ul style="list-style-type: none"> First-Line Supervisors of Construction Trades and Extraction Workers First-Line Supervisors of Helpers, Laborers, and Material Movers, Hand First-Line Supervisors of Mechanics, Installers, and Repairers
Hairdressers, Hairstylists, and Cosmetologists	<ul style="list-style-type: none"> Manicurists and Pedicurists Massage Therapists Skincare Specialists
Computer User Support Specialists	<ul style="list-style-type: none"> Computer Operators Desktop Publishers Web Administrators
Requires a High School Diploma or Equivalent or Less	
Retail Salespersons	<ul style="list-style-type: none"> Bartenders Hotel, Motel, and Resort Desk Clerks Tellers
Cashiers	<ul style="list-style-type: none"> Counter and Rental Clerks Stock Clerks, Sales Floor Waiters and Waitresses
Stock Clerks and Order Fillers	<ul style="list-style-type: none"> Hosts and Hostesses, Restaurant, Lounge, and Coffee Shop Marking Clerks Stock Clerks -Stockroom, Warehouse, or Storage Yard
First-Line Supervisors of Retail Sales Workers	<ul style="list-style-type: none"> First-Line Supervisors of Food Preparation and Serving Workers Hotel, Motel, and Resort Desk Clerks Retail Salespersons
Combined Food Preparation and Serving Workers, Including Fast Food	<ul style="list-style-type: none"> Cooks, Fast Food Food Preparation Workers Food Servers, Nonrestaurant

Source: U.S. Department of Labor's [Occupational Information Network \(O*NET\)](http://www.onetonline.org) at www.onetonline.org.

Employer Demand for the Retail Cluster

The following table lists the Sacramento Economic Market employers in the Retail cluster who posted the most job advertisements during the 120-day period ending April 30, 2015. The table also includes the number of job advertisements from the previous year's period, as well as the numerical change and year-over percent change in these postings for the same 120-day period.

Retail Cluster Employers	Recent Job Advertisements ²¹ (120-day period)	Prior Year Job Advertisements (120-day period)	Numerical Change	Year-Over Percent Change (HWOL Job Advertisements)
Macy's	251	126	125	99.2%
Safeway Companies	184	8	176	2,200.0%
Lowe's	170	134	36	26.9%
Home Depot	125	45	80	177.8%
Target Corporation	92	24	68	283.3%
Apple, Inc.	85	87	-2	-2.3%
Sears Holdings Corporation	77	286	-209	-73.1%
Whole Foods	68	84	-16	-19.0%
Nordstrom	65	82	-17	-20.7%
CarMax	53	52	1	1.9%
Staples	52	53	-1	-1.9%
Rite Aid	50	33	17	51.5%
Dollar Tree Stores, Inc.	48	21	27	128.6%
The Hertz Corporation	44	43	1	2.3%
Staff Tech	43	19	24	126.3%
AutoZone, Inc.	38	0	38	—
WinCo Foods	36	4	32	800.0%
Office Depot	34	18	16	88.9%
Toys "R" Us	31	71	-40	-56.3%
Walmart	30	12	18	150.0%

Source: The Conference Board Help Wanted OnLine™ (HWOL) Data Series: Period ending April 30, 2015.

²¹ Totals do not include employers with anonymous job advertisements.

Instructional Programs for the Top Retail Cluster Occupations

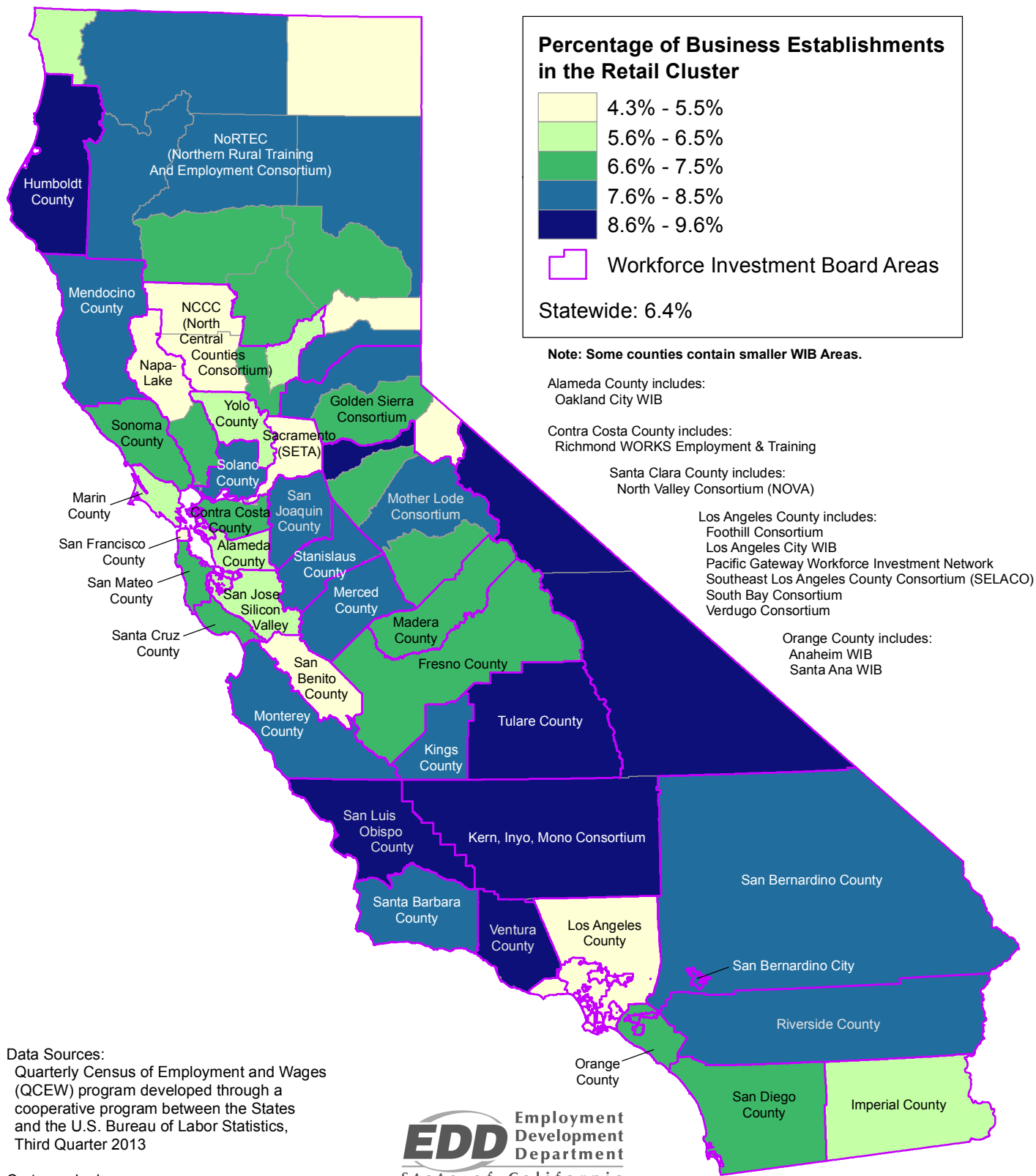
The table below provides examples of instructional programs related to some of the top occupations in the Retail cluster, particularly those that require less than a bachelor's degree. These programs train individuals for occupations throughout many industries and are not limited to the Retail cluster. To view a more complete list of training programs, select the source links under the table below. The Taxonomy of Programs categorizes and describes instructional programs only for California Community Colleges.

Occupations	Classification of Instructional Program (CIP)		Taxonomy of Programs (TOP)	
	CIP Code	CIP Title	TOP Code	TOP Title
Heavy and Tractor-Trailer Truck Drivers	49.0205	Truck and Bus Driver/ Commercial Vehicle Operator and Instructor	094750	Truck and Bus Driving
Computer, Automated Teller, and Office Machine Repairers	47.0102 47.0104	Business Machine Repair Computer Installation and Repair Technology/Technician	093410	Computer Electronics
First-Line Supervisors of Production and Operating Workers	52.0205	Operations Management and Supervision	N/A	N/A
Hairdressers, Hairstylists, and Cosmetologists	12.0401 12.0406 12.0407	Cosmetology/Cosmetologist, General Make-Up Artist/Specialist Hair Styling/Stylist and Hair Design	300700	Cosmetology and Barbering
Computer User Support Specialists	01.0106 11.1006 51.0709	Agricultural Business Technology Computer Support Specialist Medical Office Computer Specialist/Assistant	070820	Computer Support
First-Line Supervisors of Retail Sales Workers	01.0608 19.0203 52.0208	Floriculture/Floristry Operations and Management Consumer Merchandising/ Retailing Management E-Commerce/Electronic Commerce	010920 050650 050940	Floriculture /Floristry Retail Store Operations and Management Sales and Salesmanship

Source: U.S. Department of Education [Integrated Postsecondary Education Data System \(IPEDS\)](http://www.nces.ed.gov) at www.nces.ed.gov; [California Community Colleges TOP-to-CIP Crosswalk](http://www.cccco.edu) 7th Edition (2010), www.cccco.edu.

California Retail Cluster

Percentage of Total County Establishments, 2013



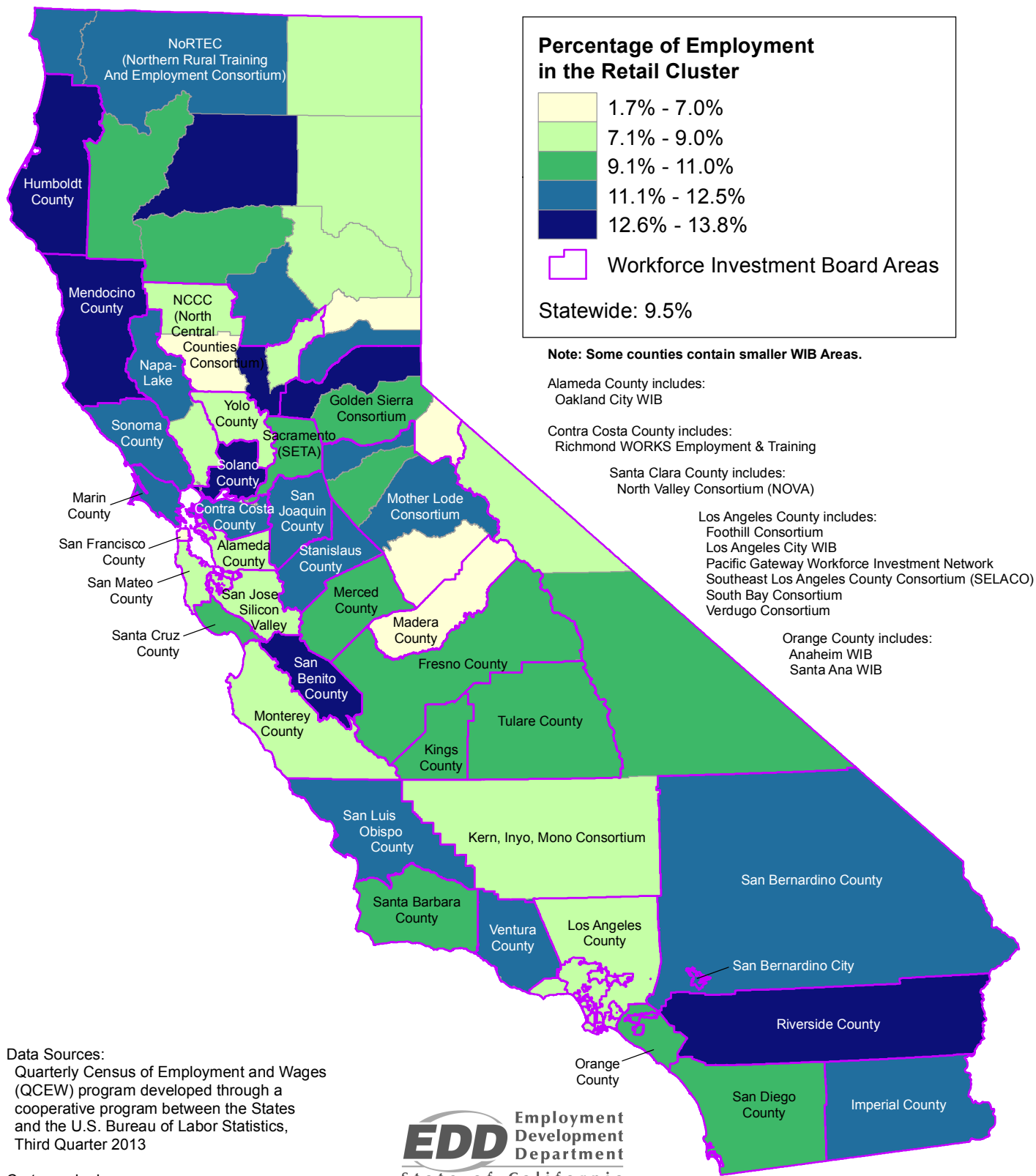
Data Sources:
Quarterly Census of Employment and Wages (QCEW) program developed through a cooperative program between the States and the U.S. Bureau of Labor Statistics, Third Quarter 2013

Cartography by:
Labor Market Information Division
California Employment Development Department
<http://www.labormarketinfo.edd.ca.gov>
July 2014



California Retail Cluster

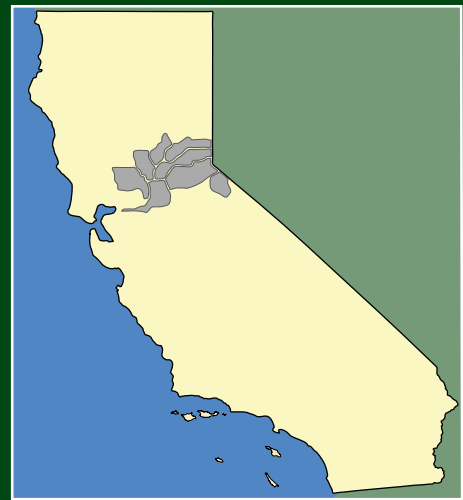
Percentage of Total County Employment, 2013



Data Sources:
 Quarterly Census of Employment and Wages (QCEW) program developed through a cooperative program between the States and the U.S. Bureau of Labor Statistics, Third Quarter 2013

Cartography by:
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Occupational Analysis: Health Care Services Cluster

Sacramento Economic Market

May 2015

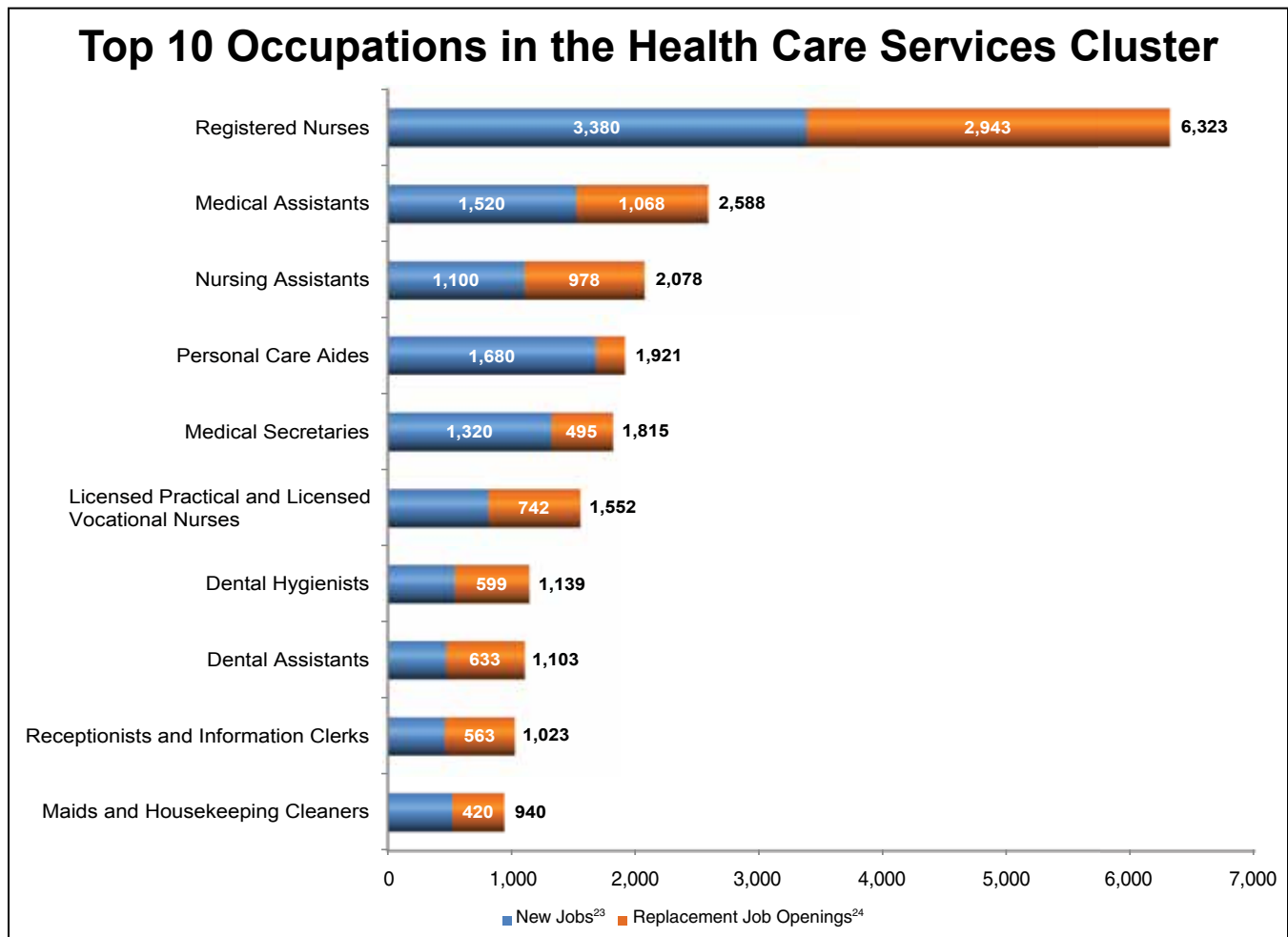
Alpine, El Dorado, Nevada, Placer, Sacramento, Sutter, Yolo, and Yuba Counties

What is the Health Care Services Cluster?

The Health Care Services cluster is comprised of 14 industries that include hospitals and doctors' offices, diagnostic laboratories, continuing care retirement communities, home health care services, and other activities related to health care. The workers employed within this cluster span all skill levels and share skills and work activities both within the cluster and in many other industry clusters, suggesting the potential for skills transference and upward mobility with additional training.

Top 10 Occupations in the Health Care Services Cluster

The graph below identifies the top 10 occupations in the Health Care Services cluster, based on the Sacramento Economic Market's new job growth plus replacement openings. In sum, these 10 occupations represent nearly half of the 41,695 total job openings projected in this cluster between 2012 and 2022. Moreover, many share the same required skills such as active listening, critical thinking, reading comprehension, service orientation, social perceptiveness, and speaking.²²



Source: California Employment Development Department, *Projections of Employment 2012-2022*. Industry and occupational employment projections for 2012-2022 in this report may not be directly comparable to the published 2012-2022 employment projections available online at www.labormarketinfo.edd.ca.gov.

²² U.S. Department of Labor's [Occupational Information Network \(O*NET\)](http://www.onetonline.org) at www.onetonline.org.

²³ New jobs are only openings due to growth and do not include job declines. If an occupation's employment change is negative, there is no job growth and new jobs are set to zero.

²⁴ Replacement job openings estimate the number of job openings created when workers retire or permanently leave an occupation and need to be replaced.

Top 10 Occupations and Recent Job Demand in the Health Care Services Cluster

The table below further profiles the Sacramento Economic Market's top 10 occupations in the Health Care Services cluster by listing the total job openings for 2012-2022, median hourly and annual wages, and entry-level education requirements. Also included are online job advertisements extracted from The Conference Board Help Wanted OnLine™ (HWOL) data series over a recent 120-day period. HWOL compiles, analyzes, and categorizes job advertisements from numerous online job boards, including CalJOBSSM (www.caljobs.ca.gov), California's online job listing system.

Occupations	Total Job Openings ²⁵ (2012-2022)	Median Hourly Wage (2014)	Median Annual Wage (2014)	Entry Level Education ²⁶	HWOL Job Ads ²⁷ (120 days)
Registered Nurses	6,323	\$52.03	\$108,210	Associate's degree	3,994
Medical Assistants	2,588	\$17.00	\$35,359	Postsecondary non-degree award	533
Nursing Assistants	2,078	\$14.52	\$30,198	Postsecondary non-degree award	238
Personal Care Aides	1,921	\$10.77	\$22,402	Less than high school	861
Medical Secretaries	1,815	\$17.82	\$37,063	High school diploma or equivalent	842
Licensed Practical and Licensed Vocational Nurses	1,552	\$27.64	\$57,495	Postsecondary non-degree award	503
Dental Hygienists	1,139	\$48.63	\$101,134	Associate's degree	91
Dental Assistants	1,103	\$19.22	\$39,992	Postsecondary non-degree award	566
Receptionists and Information Clerks	1,023	\$13.58	\$28,258	High school diploma or equivalent	584
Maids and Housekeeping Cleaners	940	\$10.56	\$21,963	Less than high school	616

Source: California Employment Development Department, *Projections of Employment 2012-2022*; *Occupational Employment Statistics Wage Survey*, updated to 4th Q, 2014; *The Conference Board Help Wanted OnLine™ (HWOL) Data Series*, 120-day period ending April 30, 2015.

²⁵ Total job openings are the sum of new jobs and replacement job openings.

²⁶ U.S. Department of Labor, Bureau of Labor Statistics (BLS) 2012 education levels.

²⁷ Totals represent job advertisements from employers in all industries. One job opening may be represented in more than one job advertisement.

Top Occupations for the Health Care Services Cluster by Education Level

The table below identifies the occupations with the most total job openings, categorized by Bureau of Labor Statistics (BLS) 2012 entry-level education requirements, within the Health Care Services cluster. The table includes the Sacramento Economic Market's projected total job openings and median hourly and annual wages. In addition, recent totals of online job advertisements over 120-day period are included. Grouping occupations by education levels allows individuals to better gauge the potential for skills transference and upward mobility within the cluster.

Occupations	Total Job Openings ²⁸ (2012-2022)	Median Hourly Wage (2014)	Median Annual Wage (2014)	HWOL Job Ads (120 days)
Requires a Bachelor's Degree or Higher				
Medical and Health Services Managers	692	\$60.07	\$124,953	1,072
Physical Therapists	399	\$46.88	\$97,499	476
Physician Assistants	380	\$52.05	\$108,252	231
Nurse Practitioners	346	\$52.75	\$109,706	81
General and Operations Managers	309	\$45.89	\$95,459	481
Requires Some College, Postsecondary Non-Degree Award, or Associate's Degree				
Registered Nurses	6,323	\$52.03	\$108,210	3,994
Medical Assistants	2,588	\$17.00	\$35,359	533
Nursing Assistants	2,078	\$14.52	\$30,198	238
Licensed Practical and Licensed Vocational Nurses	1,552	\$27.64	\$57,495	503
Dental Hygienists	1,139	\$48.63	\$101,134	91
Requires a High School Diploma or Equivalent or Less				
Personal Care Aides	1,921	\$10.77	\$22,402	861
Medical Secretaries	1,815	\$17.82	\$37,063	842
Receptionists and Information Clerks	1,023	\$13.58	\$28,258	584
Maids and Housekeeping Cleaners	940	\$10.56	\$21,963	616
Home Health Aides	781	\$11.16	\$23,216	317

Source: California Employment Development Department, Projections of Employment 2012-2022; Occupational Employment Statistics Wage Survey, updated to 4th Q, 2014; The Conference Board Help Wanted OnLine™ (HWOL) Data Series, 120-day period ending April 30, 2015.

²⁸ Total job openings are the sum of new jobs and replacement job openings.

Skill Requirements in the Health Care Services Cluster

The table below lists the 10 top skills required for top occupations in the Health Care Services cluster, categorized by entry-level education requirements. Active listening, critical thinking, reading comprehension, and social perceptiveness are the most commonly shared skills, followed by monitoring and speaking. The skills and work activities identified for each occupation are from the U.S. Department of Labor's Occupational Information Network (O*NET).

Occupations	Skills																	
	Active Learning	Active Listening	Complex Problem Solving	Coordination	Critical Thinking	Instructing	Judgment and Decision Making	Learning Strategies	Management of Personnel Resources	Monitoring	Operations Analysis	Reading Comprehension	Science	Service Orientation	Social Perceptiveness	Speaking	Time Management	Writing
Requires a Bachelor's Degree or Higher																		
Medical and Health Services Managers		●	●	●		●			●	●	●			●	●	●		
Physical Therapists		●	●	●		●			●		●			●	●	●		●
Physician Assistants	●	●	●	●					●		●			●	●	●		●
Nurse Practitioners	●	●		●	●	●			●		●	●		●	●	●		●
General and Operations Managers	●	●	●	●				●	●		●			●	●			●
Requires Some College, Postsecondary Non-Degree Award, or Associate's Degree																		
Registered Nurses	●	●	●	●			●		●		●			●	●	●		
Medical Assistants	●	●	●	●					●		●			●	●	●		●
Nursing Assistants	●	●	●	●					●		●			●	●	●		●
Licensed Practical and Licensed Vocational Nurses		●	●	●					●		●			●	●	●	●	●
Dental Hygienists	●	●		●			●		●		●			●	●	●		●
Requires a High School Diploma or Equivalent or Less																		
Personal Care Aides	●	●	●	●					●		●			●	●	●		●
Medical Secretaries		●	●	●					●		●			●	●	●	●	●
Receptionists and Information Clerks		●	●	●	●						●			●	●	●	●	●
Maids and Housekeeping Cleaners		●	●	●	●	●			●		●			●	●	●	●	
Home Health Aides	●	●	●	●			●		●		●			●	●	●		

Source: U.S. Department of Labor's [Occupational Information Network \(O*NET\)](http://www.onetonline.org) at www.onetonline.org.

Work Activities in the Health Care Services Cluster

The table below lists the 10 top work activities required for top occupations in the Health Care Services cluster, categorized by entry-level education requirements. The most common include establishing and maintaining interpersonal relationships; identifying objects, actions, and events; assisting and caring for others; and organizing, planning, and prioritizing work.

Occupations	Work Activities																											
	Analyzing Data or Information	Assisting and Caring for Others	Coaching and Developing Others	Communicating with Persons Outside Organization	Communicating with Supervisors, Peers, or Subordinates	Coordinating the Work and Activities of Others	Documenting/Recording Information	Establishing and Maintaining Interpersonal Relationships	Evaluating Information to Determine Compliance with Standards	Getting Information	Guiding, Directing, and Motivating Subordinates	Handling and Moving Objects	Identifying Objects, Actions, and Events	Inspecting Equipment, Structures, or Material	Making Decisions and Solving Problems	Monitor Processes, Materials, or Surroundings	Monitoring and Controlling Resources	Organizing, Planning, and Prioritizing Work	Performing Administrative Activities	Performing for or Working Directly with the Public	Performing General Physical Activities	Processing Information	Provide Consultation and Advice to Others	Resolving Conflicts and Negotiating with Others	Scheduling Work and Activities	Thinking Creatively	Training and Teaching Others	Updating and Using Relevant Knowledge
Requires a Bachelor's Degree or Higher																												
Medical and Health Services Managers			●	●	●	●	●			●				●	●		●	●					●	●				
Physical Therapists		●					●	●				●	●		●	●					●					●		●
Physician Assistants	●	●					●	●		●			●		●	●				●		●						●
Nurse Practitioners		●					●	●		●			●		●	●				●								●
General and Operations Managers				●	●	●	●								●	●		●	●					●	●	●		
Requires Some College, Postsecondary Non-Degree Award, or Associate's Degree																												
Registered Nurses		●		●			●	●		●			●		●	●					●							●
Medical Assistants		●		●			●	●		●			●		●	●				●								●
Nursing Assistants		●		●			●	●		●		●	●		●	●					●							●
Licensed Practical and Licensed Vocational Nurses		●		●			●	●				●	●		●	●												●
Dental Hygienists		●					●	●	●			●	●			●	●			●								●
Requires a High School Diploma or Equivalent or Less																												
Personal Care Aides		●		●			●	●				●	●		●	●				●		●						●
Medical Secretaries		●		●			●	●		●			●		●	●				●		●						●
Receptionists and Information Clerks		●					●	●		●			●		●	●				●		●						●
Maids and Housekeeping Cleaners				●			●	●		●		●	●			●	●			●		●					●	
Home Health Aides		●		●			●	●				●	●			●	●				●							●

Source: U.S. Department of Labor's [Occupational Information Network \(O*NET\)](http://www.onetonline.org) at www.onetonline.org.

Related Occupations for the Health Care Services Cluster

The table below lists top occupations in the Health Care Services cluster by entry-level education requirements and provides a sample of related occupations. These related occupations match many of the skills, education, and work experience needed for the top Health Care Services cluster occupations.

Health Care Services Occupations	Related Occupations
Requires a Bachelor's Degree or Higher	
Medical and Health Services Managers	<ul style="list-style-type: none"> • Dietitians and Nutritionists • Management Analysts • Social and Community Service Managers
Physical Therapists	<ul style="list-style-type: none"> • Health Specialties Teachers, Postsecondary • Nursing Instructors and Teachers, Postsecondary • Occupational Therapists
Physician Assistants	<ul style="list-style-type: none"> • Nurse Midwives • Clinical Nurse Specialists • Nursing Instructors and Teachers, Postsecondary
Nurse Practitioners	<ul style="list-style-type: none"> • Clinical Nurse Specialists • Nurse Midwives • Physician Assistants
General and Operations Managers	<ul style="list-style-type: none"> • First-Line Supervisors of Office and Administrative Support Workers • Logistics Managers • First-Line Supervisors of Transportation and Material-Moving Machine and Vehicle Operators
Requires Some College, Postsecondary Non-Degree Award, or Associate's	
Registered Nurses	<ul style="list-style-type: none"> • Critical Care Nurses • Licensed Practical and Licensed Vocational Nurses • Medical Assistants
Medical Assistants	<ul style="list-style-type: none"> • Dental Assistants • Licensed Practical and Licensed Vocational Nurses • Pharmacy Technicians
Nursing Assistants	<ul style="list-style-type: none"> • N/A
Licensed Practical and Licensed Vocational Nurses	<ul style="list-style-type: none"> • Physical Therapist Assistants • Occupational Therapy Assistants • Radiologic Technicians
Dental Hygienists	<ul style="list-style-type: none"> • Dental Hygienists • Endoscopy Technicians • Veterinary Technologists and Technicians
Requires a High School Diploma or Equivalent or Less	
Personal Care Aides	<ul style="list-style-type: none"> • Ambulance Drivers and Attendants, Except Emergency Medical Technicians • Childcare Workers • Lifeguards, Ski Patrol, and Other Recreational Protective Service Workers
Medical Secretaries	<ul style="list-style-type: none"> • Medical Records and Health Information Technicians • Office Clerks, General • Receptionists and Information Clerks
Receptionists and Information Clerks	<ul style="list-style-type: none"> • Bill and Account Collectors • Customer Service Representatives • Hotel, Motel, and Resort Desk Clerks
Maids and Housekeeping Cleaners	<ul style="list-style-type: none"> • Food Preparation Workers • Food Servers, Nonrestaurant • Janitors and Cleaners, Except Maids and Housekeeping Cleaners
Home Health Aides	<ul style="list-style-type: none"> • Occupational Therapy Aides • Personal Care Aides • Physical Therapist Aides

Source: U.S. Department of Labor's [Occupational Information Network \(O*NET\)](http://www.onetonline.org) at www.onetonline.org.

Employer Demand for the Health Care Services Cluster

The following table lists the Sacramento Economic Market employers in the Health Care Services cluster who posted the most job advertisements during the 120-day period ending April 30, 2015. The table also includes the number of job advertisements from the previous year's period, as well as the numerical change and year-over percent change in these postings for the same 120-day period.

Health Care Services Cluster Employers	Recent Job Advertisements ³⁰ (120-day period)	Prior Year Job Advertisements (120-day period)	Numerical Change	Year-Over Percent Change (HWOL Job Advertisements)
Sutter Health	1,083	1,453	-370	-25.5%
Kaiser Permanente	884	346	538	155.5%
Dignity Health	487	1,214	-727	-59.9%
Woodland Healthcare	199	18	181	1,005.6%
Brookdale Senior Living	111	0	111	0.0%
Marshall Medical Center	91	99	-8	-8.1%
American Mobile Healthcare	79	68	11	16.2%
Sierra Nevada Corporation	73	30	43	143.3%
Mercy San Juan Medical Center	68	99	-31	-31.3%
Vitas Healthcare	67	17	50	294.1%
Onward Healthcare	67	18	49	272.2%
Quest Diagnostics	47	123	-76	-61.8%
DaVita, Inc.	46	60	-14	-23.3%
Western Dental	38	13	25	192.3%
Shriners Hospital for Children	37	14	23	164.3%
Mercy General Hospital	34	76	-42	-55.3%
Atria Senior Living	34	2	32	1,600.0%
Genesis HealthCare	32	36	-4	-11.1%
Methodist Hospitals, Inc.	32	109	-77	-70.6%
River Oak Center for Children	26	24	2	8.3%

Source: The Conference Board Help Wanted OnLine™ (HWOL) Data Series: Period ending April 30, 2015.

³⁰ Totals do not include employers with anonymous job advertisements.

Instructional Programs for the Health Care Services Cluster Occupations

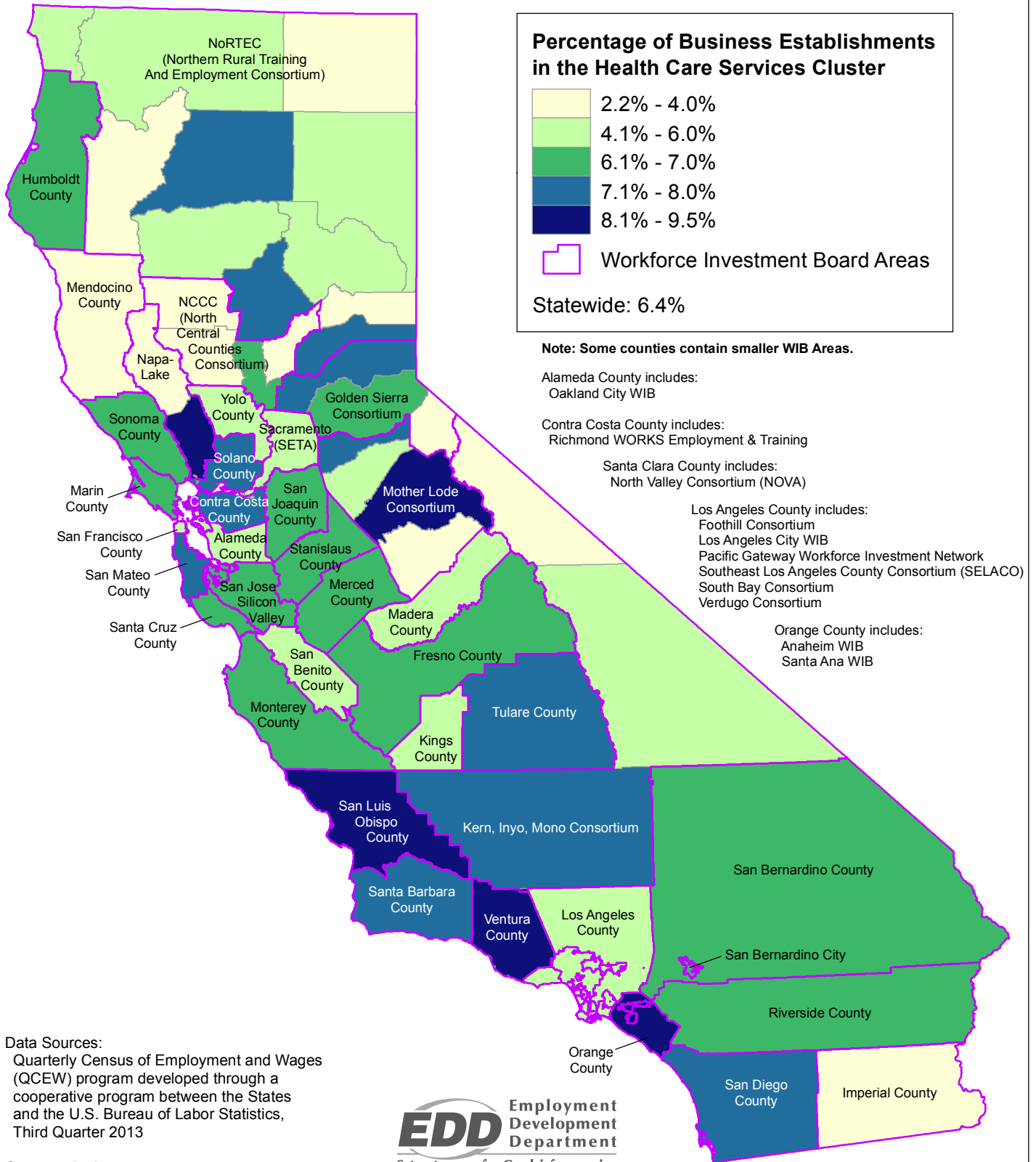
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Occupations	Classification of Instructional Program (CIP)		Taxonomy of Programs (TOP)	
	CIP Code	CIP Title	TOP Code	TOP Title
Registered Nurses	51.3801	Registered Nursing/Registered Nurse	123000	Nursing
	51.3802	Nursing Administration	123010	Registered Nursing
	51.3803	Adult Health Nurse/Nursing		
Medical Assistants	51.0710	Medical Office Assistant/Specialist	051420	Medical Office Technology
	51.0712	Medical Reception/Receptionist	120800	Medical Assisting
	51.0713	Medical Insurance Coding Specialist/Coder	120810	Clinical Medical Assisting
Nursing Assistants	51.2601	Health Aide	123030	Certified Nurse Assistant
	51.3902	Nursing Assistant/Aide and Patient Care Assistant/Aide		
	51.3999	Practical Nursing, Vocational Nursing and Nursing Assistants, Other		
Licensed Practical and Licensed Vocational Nurses	51.3901	Licensed Practical/Vocational Nurse Training	123020	Licensed Vocational Nursing
	51.3999	Practical Nursing, Vocational Nursing and Nursing Assistants, Other		
Dental Hygienists	51.0602	Dental Hygiene/Hygienist	124020	Dental Hygienist
Personal Care Aides	51.2602	Home Health Aide/Home Attendant	123080	Home Health Aide
Medical Secretaries	51.0710	Medical Office Assistant/Specialist	051420	Medical Office Technology
	51.0714	Medical Insurance Specialist/Medical Biller		
	51.0716	Medical Administrative/Executive Assistant and Medical Secretary		
Receptionists and Information Clerks	52.0406	Receptionist		
Home Health Aides	51.2602	Home Health Aide/Home Attendant	123080	Home Health Aide

Source: U.S. Department of Education [Integrated Postsecondary Education Data System \(IPEDS\)](http://www.nces.ed.gov/ipeds) at www.nces.ed.gov; [California Community Colleges TOP-to-CIP Crosswalk 7th Edition \(2010\)](http://www.cccco.edu), www.cccco.edu.

California Health Care Services Cluster

Percentage of Total County Establishments, 2013



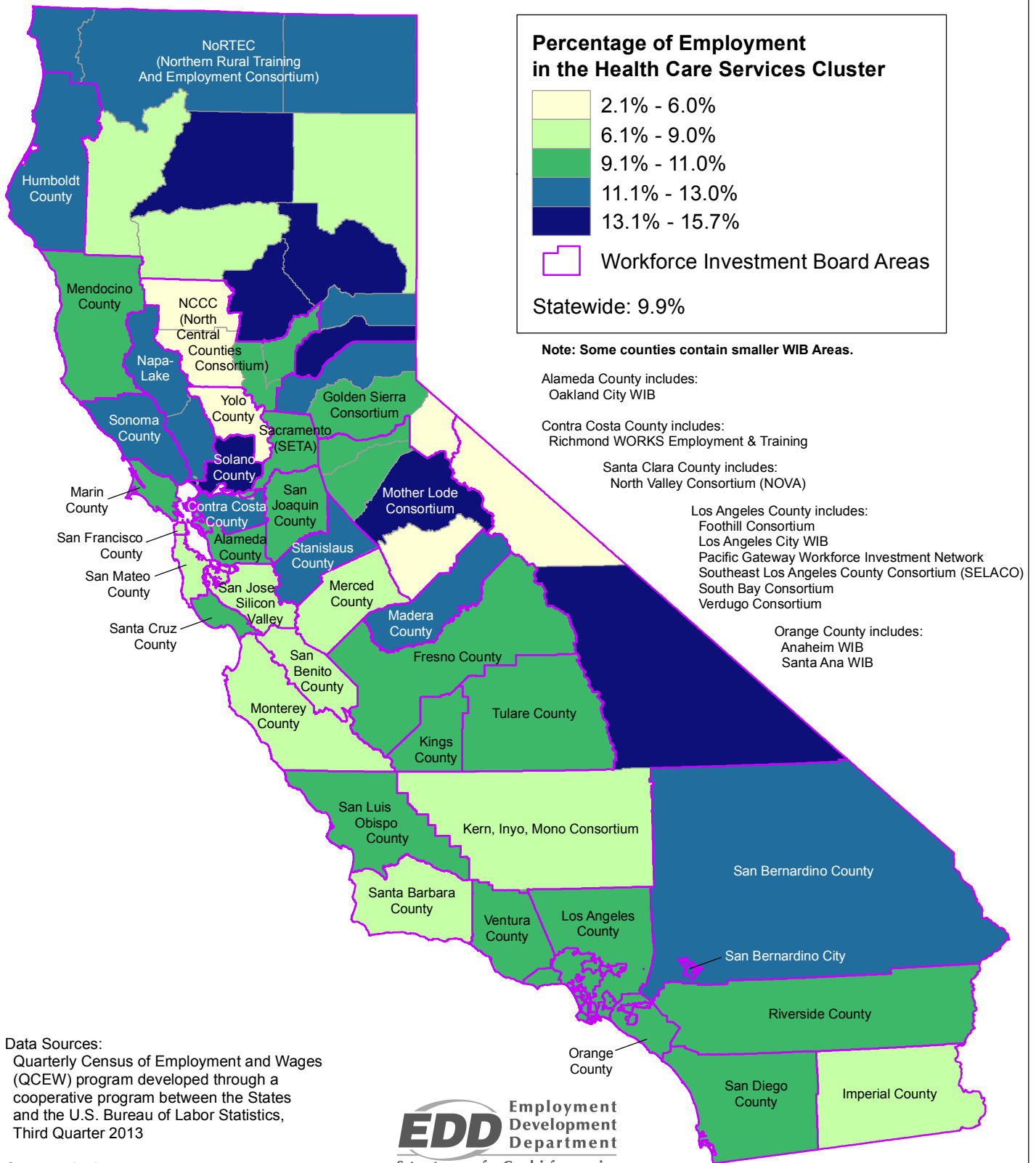
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California Health Care Services Cluster

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