

Regional Economic Analysis Profile

San Francisco Bay Area Economic Sub-Market
Alameda, Contra Costa, and Solano Counties
March 2015







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^{**} This economic sub-market includes Alameda, Contra Costa, and Solano Counties.

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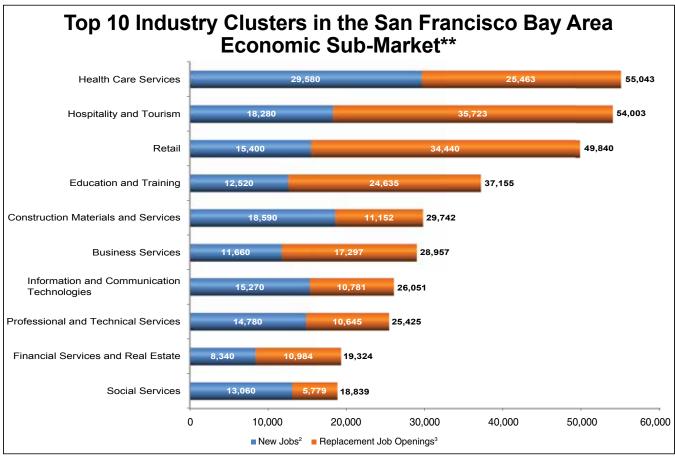
SUMMARY OF THE SAN FRANCISCO BAY AREA ECONOMIC SUB-MARKET INDUSTRY CLUSTERS

What is an Industry Cluster?

Industry clusters are groups of associated industries in an economic sub-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 sub-market industry clusters. This report focuses on the future employment demand of economic sub-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.

^{**} This economic sub-market includes Alameda, Contra Costa, and Solano Counties.

INDUSTRY CLUSTER DESCRIPTIONS

The following are descriptions of the San Francisco Bay Area Economic Sub-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 **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 130,000 people in the economic sub-market during 2013-2014,* accounting for 12.3 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
- Nursing Care Facilities (Skilled Nursing Facilities)
- Continuing Care Retirement Communities and Assisted Living Facilities for the Elderly
- Offices of Physicians

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 was comprised of almost 110,000 workers, or 10.4 percent of the economic sub-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
- Amusement Parks and Arcades

The **Retail** industry cluster includes grocery and department stores, dollar stores, retail pharmacies, and clothing specialty stores. During 2013-2014,* this cluster employed more than 113,000 workers, or 10.7 percent of the economic sub-market's total employment. Industries projected to have the largest number of jobs (new and replacement) include:

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

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 101,000 people in the economic sub-market, accounting for 9.5 percent of the workforce. Top industries within this cluster include:

- Elementary and Secondary Schools
- Colleges, Universities, and Professional Schools
- Other Schools and Instruction
- Junior Colleges
- 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 67,000 workers made up the cluster's employment, representing 6.3 percent of the economic sub-market's total workforce. Industries showing the highest projected job openings include:

- Building Equipment Contractors
- Residential Building Construction
- Building Finishing Contractors
- Foundation, Structure, and Building Exterior Contractors
- Other Specialty Trade Contractors

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

^{**} This economic sub-market includes Alameda, Contra Costa, and Solano Counties.

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 more than 89,000 people during 2013-2014,* or 8.4 percent of the economic sub-market's workforce. Top industries in this cluster include:

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

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 more than 59,000 workers, or 5.6 percent of the economic sub-market's total employment. Industries with the highest number of expected job openings include:

- Computer Systems Design and Related Services
- Semiconductor and Other Electronic Component Manufacturing
- Wholesale Electronic Markets and Agents and Brokers
- Software Publishers
- Wired Telecommunications Carriers

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 51,000 people were employed in the economic sub-market, or 4.8 percent of the workforce. Top industries within this cluster include:

- Management, Scientific, and Technical Consulting Services
- Architectural, Engineering, and Related Services
- Legal Services
- Other Professional, Scientific, and Technical Services
- Accounting, Tax Preparation, Bookkeeping, and Payroll 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 nearly 50,000 people, which accounted for 4.7 percent of the economic sub-market's workforce in 2013-2014.* Industries showing the highest projected job openings include:

- Depository Credit Intermediation
- Insurance Carriers
- Agencies, Brokerages, and Other Insurance Related Activities
- · Other Financial Investment Activities
- Activities Related to Credit Intermediation

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 almost 48,000 people and accounted for 4.5 percent of the economic sub-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

^{*} 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 San Francisco Bay Area Economic Sub-Market.**

Health	Care Services	Retail (Continued)							
6211	Offices of Physicians	4451	Grocery Stores						
6212	Offices of Dentists	4452	Specialty Food Stores						
6213	Offices of Other Health Practitioners	4453	Beer, Wine, and Liquor Stores						
6214	Outpatient Care Centers	4461	Health and Personal Care Stores						
6215	Medical and Diagnostic Laboratories	4471	Gasoline Stations						
6216	Home Health Care Services	4481	Clothing Stores						
6219	Other Ambulatory Health Care Services	4482	Shoe Stores						
6221	General Medical and Surgical Hospitals	4483	Jewelry, Luggage, and Leather Goods Stores						
6222	Psychiatric and Substance Abuse Hospitals	4511	Sporting Goods, Hobby, and Musical						
6223	Specialty (except Psychiatric and Substance		Instrument Stores						
	Abuse) Hospitals	4521	Department Stores						
6231	Nursing Care Facilities (Skilled Nursing	4529	Other General Merchandise Stores						
	Facilities)	4532	Office Supplies, Stationery, and Gift Stores						
6232	Residential Intellectual and Developmental	4533	Used Merchandise Stores						
	Disability, Mental Health, and Substance	4542	Vending Machine Operators						
	Abuse Facilities	Educa	tion and Training						
6233	Continuing Care Retirement Communities	6111	Elementary and Secondary Schools						
	and Assisted Living Facilities for the Elderly	6112	Junior Colleges						
6239	Other Residential Care Facilities	6113	Colleges, Universities, and Professional						
Hospit	ality and Tourism		Schools						
4871	Scenic and Sightseeing Transportation, Land	6114	Business Schools and Computer and						
4872	Scenic and Sightseeing Transportation, Water		Management Training						
4879	Scenic and Sightseeing Transportation, Other	6115	Technical and Trade Schools						
5615	Travel Arrangement and Reservation Services	6116	Other Schools and Instruction						
7121	Museums, Historical Sites, and Similar Institutions	6117	Educational Support Services						
7131	Amusement Parks and Arcades	Const	ruction Materials and Services						
7132	Gambling Industries	2123	Nonmetallic Mineral Mining and Quarrying						
7139	Other Amusement and Recreation Industries	2213	Water, Sewage and Other Systems						
7211	Traveler Accommodation	2361	Residential Building Construction						
7212	RV (Recreational Vehicle) Parks and	2362	Nonresidential Building Construction						
7040	Recreational Camps	2372	Land Subdivision						
7213	Rooming and Boarding Houses	2373	Highway, Street, and Bridge Construction						
7223	Special Food Services	2379	Other Heavy and Civil Engineering						
7224 7225	Drinking Places (Alcoholic Beverages) Restaurants and Other Eating Places		Construction						
	nestaurants and Other Eating Flaces	2381	Foundation, Structure, and Building Exterior						
Retail			Contractors						
4411	Automobile Dealers	2382	Building Equipment Contractors						
4412	Other Motor Vehicle Dealers	2383	Building Finishing Contractors						
4413	Automotive Parts, Accessories, and Tire Stores	2389	Other Specialty Trade Contractors						
4431	Electronics and Appliance Stores	3211	Sawmills and Wood Preservation						
4441	Building Material and Supplies Dealers	3271	Clay Product and Refractory Manufacturing						

^{**} This economic sub-market includes Alameda, Contra Costa, and Solano Counties.

INDUSTRY CLUSTER DEFINITIONS

Constr	uction Materials and Services (Continued)	Professional and Technical Services							
3272	Glass and Glass Product Manufacturing	5411	Legal Services						
3273	Cement and Concrete Product Manufacturing	5412	Accounting, Tax Preparation, Bookkeeping,						
3274	Lime and Gypsum Product Manufacturing		and Payroll Services						
3279	Other Nonmetallic Mineral Product Manufacturing	5413	Architectural, Engineering, and Related Services						
3339	Other General Purpose Machinery	5414	Specialized Design Services						
	Manufacturing	5416	Management, Scientific, and Technical						
3351	Electric Lighting Equipment Manufacturing		Consulting Services						
Busine	ss Services	5418	Advertising, Public Relations, and Related Services						
5511	Management of Companies and Enterprises	5419	Other Professional, Scientific, and Technical						
5611	Office Administrative Services	0110	Services						
5612	Facilities Support Services	Einono	ial Services and Real Estate						
5613	Employment Services								
5614	Business Support Services	5211	Monetary Authorities-Central Bank						
5419	Other Professional, Scientific, and Technical	5221	Depository Credit Intermediation						
5616	Investigation and Security Services	5222	Nondepository Credit Intermediation						
5617	Services to Buildings and Dwellings	5223	Activities Related to Credit Intermediation						
5619 5621	Other Support Services Waste Collection	5231	Securities and Commodity Contracts Intermediation and Brokerage						
5622	Waste Treatment and Disposal	5232	Securities and Commodity Exchanges						
5629	Remediation and Other Waste Management	5239	Other Financial Investment Activities						
3023	Services	5241	Insurance Carriers						
Informa	ation and Communication Technologies	5242	Agencies, Brokerages, and Other Insurance Related Activities						
3341	Computer and Peripheral Equipment	5251	Insurance and Employee Benefit Funds						
	Manufacturing	5259	Other Investment Pools and Funds						
3342	Communications Equipment Manufacturing	5311	Lessors of Real Estate						
3344	Semiconductor and Other Electronic	5312	Offices of Real Estate Agents and Brokers						
	Component Manufacturing	5313	Activities Related to Real Estate						
3359	Other Electrical Equipment and Component Manufacturing	Social	Services						
4251	Wholesale Electronic Markets and Agents and	6241	Individual and Family Services						
	Brokers	6242	Community Food and Housing, and						
5112	Software Publishers	0040	Emergency and Other Relief Services						
5171	Wired Telecommunications Carriers	6243	Vocational Rehabilitation Services						
5172	Wireless Telecommunications Carriers (except Satellite)	6244	Child Day Care Services						
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: Health Care Services Cluster

San Francisco Bay Area Economic Sub-Market
Alameda, Contra Costa, and Solano Counties

March 2015



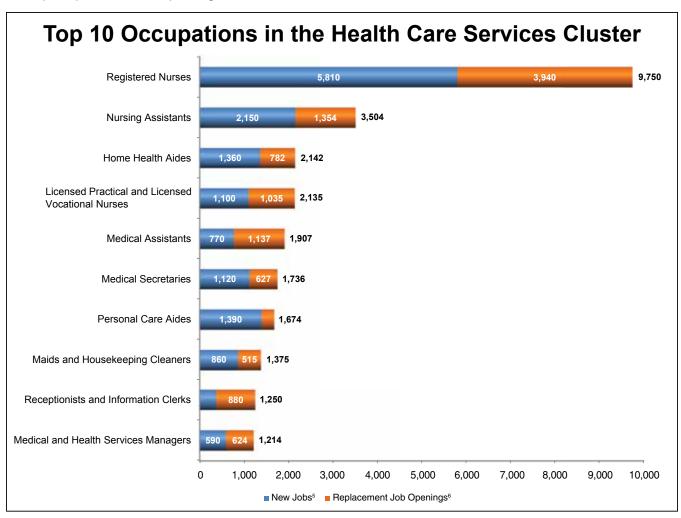


What is the Health Care Services Cluster?

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 San Francisco Bay Area Economic Sub-Market's** new job growth plus replacement openings. In sum, these 10 occupations represent nearly half of the 55,043 total job openings projected in this cluster between 2012 and 2022. Moreover, many share the same required skills such as active listening, coordination, critical thinking, 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) 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.

^{**} This economic sub-market includes Alameda, Contra Costa, and Solano Counties.

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

The table below further profiles the San Francisco Bay Area Economic Sub-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 CalJOBS™ (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)
Registered Nurses	9,750	\$63.02	\$131,094	Associate's degree	6,108
Nursing Assistants	3,488	\$16.74	\$34,822	Postsecondary non-degree award	204
Home Health Aides	2,142	\$14.14	\$29,408	Less than high school	377
Licensed Practical and Licensed Vocational Nurses	2,120	\$29.78	\$61,937	Postsecondary non-degree award	544
Medical Assistants	1,907	\$19.85	\$41,279	Postsecondary non-degree award	603
Medical Secretaries	1,736	\$21.29	\$44,282	High school diploma or equivalent	1,147
Personal Care Aides	1,674	\$10.27	\$21,378	Less than high school	1,213
Maids and Housekeeping Cleaners	1,375	\$13.00	\$27,040	Less than high school	850
Receptionists and Information Clerks	1,250	\$16.86	\$35,070	High school diploma or equivalent	766
Medical and Health Services Managers	1,212	\$61.43	\$127,778	Bachelor's degree	1,102

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 March 10, 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.

^{**} This economic sub-market includes Alameda, Contra Costa, and Solano Counties.

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 San Francisco Bay Area Economic Sub-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 Highe	r			
Medical and Health Services Managers	1,212	\$61.43	\$127,778	1,102
Physical Therapists	672	\$48.52	\$100,935	590
Pharmacists	561	\$67.20	\$139,760	205
Healthcare Social Workers	434	\$34.16	\$71,042	130
Medical Scientists, Except Epidemiologists	399	\$49.56	\$103,099	618
Requires Some College, Postsecondar	y Non-Degree A	ward, or Assoc	iate's Degree	
Registered Nurses	9,750	\$63.02	\$131,094	6,108
Nursing Assistants	3,488	\$16.74	\$34,822	204
Licensed Practical and Licensed Vocational Nurses	2,120	\$29.78	\$61,937	544
Medical Assistants	1,907	\$19.85	\$41,279	603
Dental Assistants	1,212	\$19.52	\$40,601	854
Requires a High School Diploma or Eq	uivalent or Less	5		
Home Health Aides	2,142	\$14.14	\$29,408	377
Medical Secretaries	1,736	\$21.29	\$44,282	1,147
Personal Care Aides	1,674	\$10.27	\$21,378	1,213
Maids and Housekeeping Cleaners	1,375	\$13.00	\$27,040	850
Receptionists and Information Clerks	1,250	\$16.86	\$35,070	766

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 March 10, 2015.

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

^{**} This economic sub-market includes Alameda, Contra Costa, and Solano Counties.

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 speaking are the most commonly shared skills, followed by coordination, monitoring, and service orientation. The skills and work activities identified for each occupation are from the U.S. Department of Labor's Occupational Information Network (O*NET).

								S		lls							
Occupations Active Learning		Active Listening	Complex Problem Solving	Coordination	Critical Thinking	Instructing	Judgment and Decision Making	Learning Strategies	Monitoring	Operations Analysis	Reading Comprehension	Science	Service Orientation	Social Perceptiveness	Speaking	Time Management	Writing
Requires a Bachelor's Degree or Higher			ı	ı													
Medical and Health Services Managers		•		•	•		•		•	•	•			•	•	•	
Physical Therapists		•		•	•		•		•		•		•	•	•		•
Pharmacists	•	•			•	•			•		•	•		•	•		•
Healthcare Social Workers	•	•		•	•		•				•		•	•	•		•
Medical Scientists, Except Epidemiologists	•	•	•		•	•	•				•	•			•		•
Requires Some College, Postsecondary Non-Degree Award,	or .	As	so	cia	te's	s D	eg	ree	,								
Registered Nurses	•	•		•	•			•	•		•		•	•	•		
Nursing Assistants	•	•		•	•				•		•		•	•	•		•
Licensed Practical and Licensed Vocational Nurses		•		•	•				•		•		•	•	•	•	•
Medical Assistants	•	•		•	•				•		•		•	•	•		•
Dental Assistants	•	•			•	•			•		•		•	•	•		•
Requires a High School Diploma or Equivalent or Less																	
Home Health Aides	•	•		•	•			•	•		•		•	•	•		
Medical Secretaries		•		•	•				•		•		•	•	•	•	•
Personal Care Aides	•	•		•	•				•		•		•	•	•		•
Maids and Housekeeping Cleaners		•		•	•	•			•		•		•	•	•	•	
Receptionists and Information Clerks		•	•	•	•						•		•	•	•	•	•

Source: U.S. Department of Labor's Occupational Information Network (O*NET) 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; organizing, planning, and prioritizing work; and assisting and caring for others.

	Work Activities																										
Occupations	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	ting Subordinates			erial	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	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		•					•	•				•	•		•	•		_			•				•	\dashv	•
Pharmacists	•	•		_				•	•				•	_	_	•		•		•	Ť	•				\dashv	•
Healthcare Social Workers		•			•		•	•							•			•		•			•	•		\dashv	•
Medical Scientists, Except Epidemiologists	•			_	•			•		•			•			•		•				•			•	\dashv	•
Requires Some College, Postsecondary Non-	De	gr	ee	A	wa	rd	, o	r A	As	so	cia	ate	e's	D	eg	re	е										
Registered Nurses		•			•			•		•			•		•	•		•				•				П	•
Nursing Assistants		•			•			•		•		•	•		•	•		•				•					
Licensed Practical and Licensed Vocational Nurses		•			•		•	•				•	•		•	•		•									•
Medical Assistants		•			•		•	•		•			•			•		•		•							•
Dental Assistants		•						•	•	•		•	•		•	•		•									•
Requires a High School Diploma or Equivalen	t c	r l	Le	ss																							
Home Health Aides		•			•		•	•				•	•			•		•				•					•
Medical Secretaries		•		•	•			•		•			•		•			•				•					•
Personal Care Aides		•			•		•	•				•	•		•	•		•			•						
Maids and Housekeeping Cleaners					•			•		•		•	•	•				•		•	•					•	
Receptionists and Information Clerks		•					•	•		•			•			•			•	•		•					•

Source: U.S. Department of Labor's Occupational Information Network (O*NET) 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.

Health Care Services Occupations	Related Occupations								
Requires a Bachelor's Degree or H	igher								
Medical and Health Services Managers	Human Resources ManagersInstructional CoordinatorsManagement Analysts								
Physical Therapists	 Health Specialties Teachers, Postsecondary Nursing Instructors and Teachers, Postsecondary Occupational Therapists 								
Pharmacists	 Health Specialties Teachers, Postsecondary Medical Scientists, Except Epidemiologists Nursing Instructors and Teachers, Postsecondary 								
Healthcare Social Workers	 Child, Family, and School Social Workers Marriage and Family Therapists Mental Health Counselors 								
Medical Scientists, Except Epidemiologists	 Geneticists Health Specialties Teachers, Postsecondary Preventive Medicine Physicians 								
Requires Some College, Postsecor	ndary Non-Degree Award, or Associate's Degree								
Registered Nurses	 Acute Care Nurses Critical Care Nurses Licensed Practical and Licensed Vocational Nurses 								
Nursing Assistants	• N/A								
Licensed Practical and Licensed Vocational Nurses	Occupational Therapy AssistantsPhysical Therapist AssistantsRadiologic Technicians								
Medical Assistants	Pharmacy TechniciansSocial and Human Service AssistantsSpeech-Language Pathology Assistants								
Dental Assistants	Dental HygienistsEndoscopy TechniciansSurgical Technologists								
Requires a High School Diploma o	r Equivalent or Less								
Home Health Aides	Childcare WorkersPersonal Care AidesPhysical Therapist Aides								
Medical Secretaries	 Bill and Account Collectors Medical Records and Health Information Technicians Receptionists and Information Clerks 								
Personal Care Aides	 Ambulance Drivers and Attendants, Except Emergency Medical Technicians Childcare Workers Occupational Therapy Aides 								
Maids and Housekeeping Cleaners	 Dishwashers Food Preparation Workers Janitors and Cleaners, Except Maids and Housekeeping Cleaners 								
Receptionists and Information Clerks	 Customer Service Representatives Hotel, Motel, and Resort Desk Clerks Office Clerks, General 								

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

Employer Demand for the Health Care Services Cluster

The following table lists the San Francisco Bay Area Economic Sub-Market** employers in the Health Care Services cluster who posted the most job advertisements during the 120-day period ending March 10, 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 ¹¹ (120-day period)	Prior Year Job Advertisements (120-day period)	Numerical Change	Year-Over Percent Change (HWOL Job Advertisements)		
Sutter Health	461	374	87	23.3%		
NorthBay Healthcare	303	207	96	46.4%		
Onward Healthcare	127	70	57	81.4%		
American Mobile Healthcare	123	147	-24	-16.3%		
Brookdale Senior Living	112	13	99	761.5%		
Children's Hospital & Research Center Oakland	93	86	7	8.1%		
Fresenius Medical Care	85	64	21	32.8%		
John Muir Health	83	31	52	167.7%		
Vitas Healthcare	71	15	56	373.3%		
Kindred Healthcare	64	49	15	30.6%		
DaVita, Inc.	50	68	-18	-26.5%		
Tenet Healthcare Corporation	45	26	19	73.1%		
Aureus Medical	45	0	45	_		
Allied Health Group	44	16	28	175.0%		
La Clinica	43	24	19	79.2%		
Ascent Technology	41	0	41	_		
Genesis HealthCare	41	18	23	127.8%		
Western Dental	39	19	20	105.3%		
Va Medical Center	39	0	39	_		
Sunrise Senior Living, Inc.	37	18	19	105.6%		

Source: The Conference Board Help Wanted OnLine™ (HWOL) Data Series: Period ending March 10, 2015.

¹¹ Totals do not include employers with anonymous job advertisements.

^{**} This economic sub-market includes Alameda, Contra Costa, and Solano Counties.

Instructional Programs for the Top Health Care Services Cluster Occupations

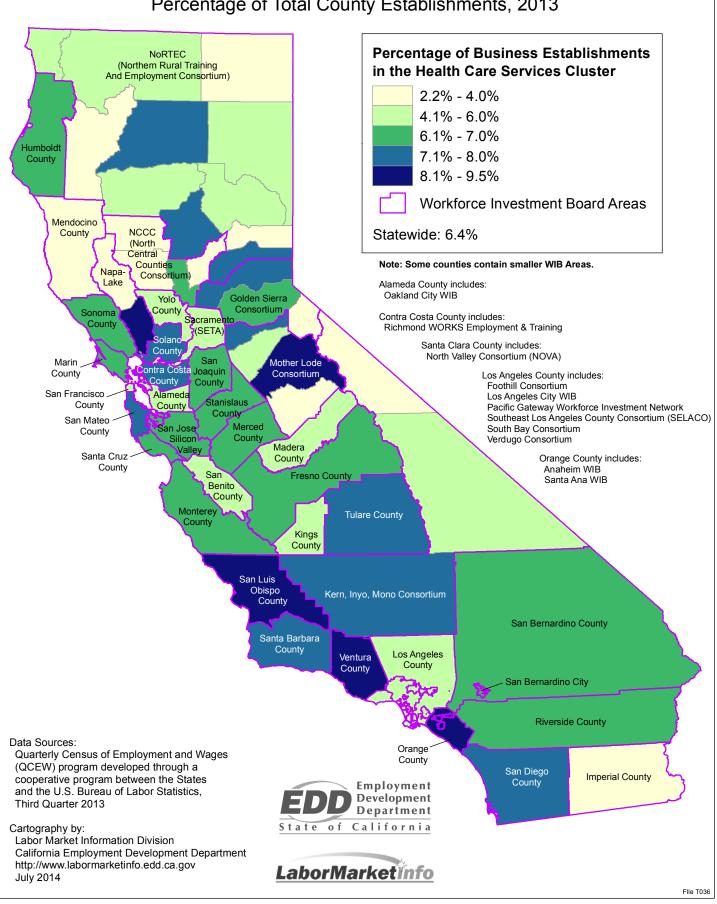
The table below provides examples of instructional programs related to some of the top occupations in the Health Care Services cluster, particularly those that require less than a bachelor's degree. These programs train individuals for occupations throughout many industries and are not limited to the Health Care Services 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.

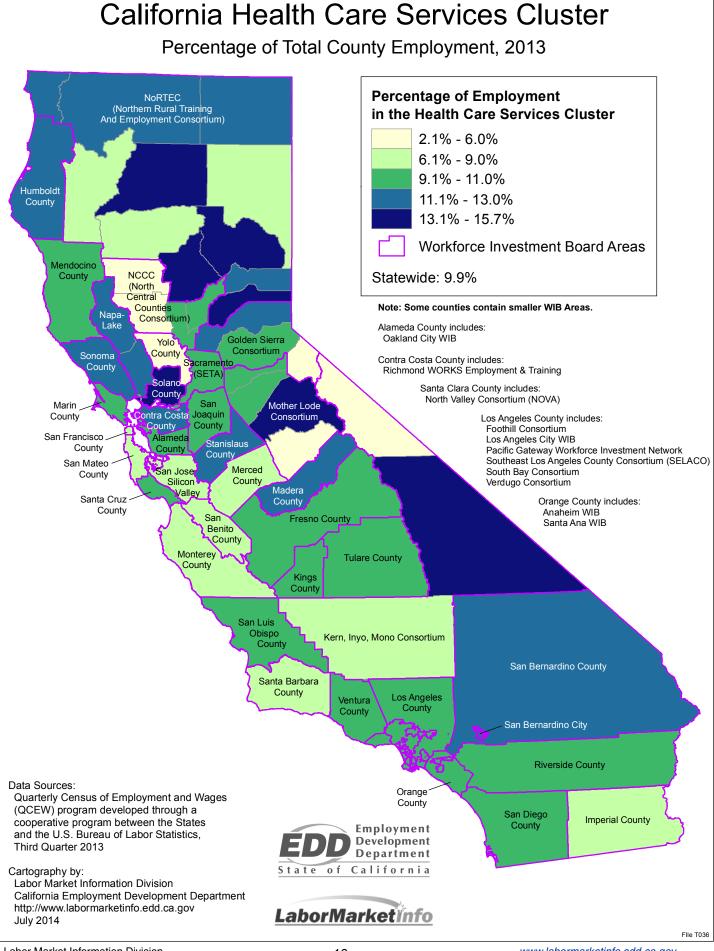
Occupations	Classifica	ation of Instructional Program (CIP)	Taxono	omy of Programs (TOP)
	CIP Code	CIP Title	TOP Code	TOP Title
	51.3803 51.3805	Adult Health Nurse/Nursing	123000 123010	Nursing
Registered Nurses	51.3806	Family Practice Nurse/Nursing Maternal/Child Health and Neonatal Nurse/Nursing	123010	Registered Nursing
	51.2601	Health Aide	123030	Certified Nurse
Nursing Assistants	51.3902	Nursing Assistant/Aide and Patient Care Assistant/Aide		Assistant
	51.3999	Practical Nursing, Vocational Nursing and Nursing Assistants, Other		
Licensed Practical and	51.3901	Licensed Practical/Vocational Nurse Training	123020	Licensed Vocational Nursing
Licensed Vocational Nurses	51.3999	Practical Nursing, Vocational Nursing and Nursing Assistants, Other		
	51.0710	Medical Office Assistant/Specialist	120800	Medical Assisting
Medical Assistants	51.0712	Medical Reception/Receptionist	120810	Clinical Medical Assisting
	51.0713	Medical Insurance Coding Specialist/ Coder	120820	Administrative Medical Assisting
Dental Assistants	51.0601	Dental Assisting/Assistant	124010	Dental Assistant
Home Health Aides	51.2602	Home Health Aide/Home Attendant	123080	Home Health Aide
	51.0710	Medical Office Assistant/Specialist	051420	Medical Office
Medical Secretaries	51.0714	Medical Insurance Specialist/Medical Biller		Technology
	51.0716	Medical Administrative/Executive Assistant and Medical Secretary		
Personal Care Aides	51.2602	Home Health Aide/Home Attendant	123080	Home Health Aide
Receptionists and Information Clerks	52.0406	Receptionist	N/A	N/A

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

California Health Care Services Cluster

Percentage of Total County Establishments, 2013







Occupational Analysis: Hospitality and Tourism Cluster

San Francisco Bay Area Economic Sub-Market
Alameda, Contra Costa, and Solano Counties
March 2015



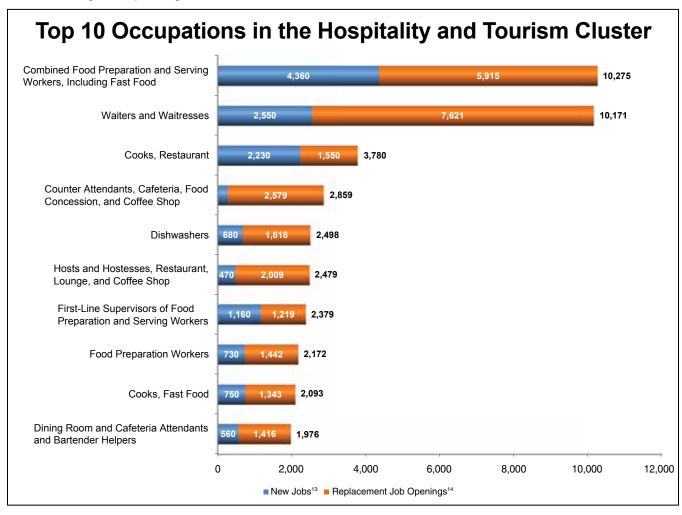


What is the Hospitality and Tourism Cluster?

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 San Francisco Bay Area Economic Sub-Market's** new job growth plus replacement openings. In sum, these 10 occupations represents approximately three-quarters of the 54,003 total job openings projected in this cluster between 2012 and 2022. Moreover, many share the same required skills such as active listening, coordination, critical thinking, 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.

^{**} This economic sub-market includes Alameda, Contra Costa, and Solano Counties.

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

The table below further profiles the San Francisco Bay Area Economic Sub-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 120-day period. HWOL compiles, analyzes, and categorizes job advertisements from numerous online job boards, including CalJOBS™ (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)
Combined Food Preparation and Serving Workers, Including Fast Food	10,275	\$9.36	\$19,474	Less than high school	1,330
Waiters and Waitresses	10,171	\$9.28	\$19,292	Less than high school	700
Cooks, Restaurant	3,780	\$10.74	\$22,337	Less than high school	732
Counter Attendants, Cafeteria, Food Concession, and Coffee Shop	2,859	\$9.75	\$20,281	Less than high school	178
Dishwashers	2,498	\$9.29	\$19,323	Less than high school	382
Hosts and Hostesses, Restaurant, Lounge, and Coffee Shop	2,479	\$9.21	\$19,151	Less than high school	127
First-Line Supervisors of Food Preparation and Serving Workers	2,379	\$13.39	\$27,851	High school diploma or equivalent	1,922
Food Preparation Workers	2,172	\$9.46	\$19,692	Less than high school	399
Cooks, Fast Food	2,093	\$9.46	\$19,678	Less than high school	113
Dining Room and Cafeteria Attendants and Bartender Helpers	1,976	\$9.16	\$19,050	Less than high school	187

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 March 10, 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.

^{**} This economic sub-market includes Alameda, Contra Costa, and Solano Counties.

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 San Francisco Bay Area Economic Sub-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				
Coaches and Scouts	258	N/A	\$41,377	295
General and Operations Managers	228	\$55.08	\$114,569	850
Recreation Workers	93	\$12.39	\$25,771	187
Market Research Analysts and Marketing Specialists	72	\$37.98	\$79,009	717
Meeting, Convention, and Event Planners	56	\$22.93	\$47,678	102
Requires Some College, Postsecondary N	on-Degree Awa	ırd, or Associat	e's Degree	
Massage Therapists	17	\$23.32	\$48,501	180
Actors	13	\$17.47	N/A	100
Teacher Assistants	12	N/A	\$30,997	945
Audio and Video Equipment Technicians	10	\$26.64	\$55,397	76
Skincare Specialists	2	\$17.49	\$36,383	85
Requires a High School Diploma or Equiv	alent or Less			
Combined Food Preparation and Serving Workers, Including Fast Food	10,275	\$9.36	\$19,474	1,330
Waiters and Waitresses	10,171	\$9.28	\$19,292	700
Cooks, Restaurant	3,780	\$10.74	\$22,337	732
Counter Attendants, Cafeteria, Food Concession, and Coffee Shop	2,859	\$9.75	\$20,281	178
Dishwashers	2,498	\$9.29	\$19,323	382

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 March 10, 2015.

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

^{**} This economic sub-market includes Alameda, Contra Costa, and Solano Counties.

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. Active listening, critical thinking and speaking are the most commonly shared skills, followed by 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).

											Sk	ill	S									
Occupations	Active Learning	Active Listening	Coordination	Critical Thinking	Equipment Maintenance	Instructing	Judgment and Decision Making	Learning Strategies	Management of Personnel Resources	Monitoring	Negotiation	Operation Monitoring	Persuasion	Quality Control Analysis	Reading Comprehension	Service Orientation	Social Perceptiveness	Speaking	Systems Analysis	Systems Evaluation	Time Management	Writing
Requires a Bachelor's Degree or Higher																						
Coaches and Scouts		•		•		•	•	•	•	•							•	•		•		_
General and Operations Managers	•	•	•	•					•	•					•		•	•			_	•
Recreation Workers		•	•	•		•			•	•					•	•	•	•				_
Market Research Analysts and Marketing Specialists	•	•		•			•			•					•			•	•	•	_	•
Meeting, Convention, and Event Planners		•	•	•						•	•				•	•	•	•			•	
Requires Some College, Postsecondary Non-Degree Av	vai	rd,	OI	r A	SS	oc	iat	te's	s C)e	gre	е										
Massage Therapists	•	•		•			•			•					•	•	•	•			_	•
Actors	•	•	•	•						•			•		•		•	•			_ '	•
Teacher Assistants		•	•	•		•		•		•					•		•	•			_	•
Audio and Video Equipment Technicians	•	•	•	•		•				•		•			•			•				•
Skincare Specialists	•	•	•	•			•			•					•	•	•	•				
Requires a High School Diploma or Equivalent or Less										Ĭ						ı						
Combined Food Preparation and Serving Workers, Including Fast Food		•	•	•		•		•					•		•	•	•	•				
Waiters and Waitresses		•	•	•				•		•			•		•	•	•	•				
Cooks, Restaurant	•	•	•	•		•				•				•				•			•	•
Counter Attendants, Cafeteria, Food Concession, and Coffee Shop		•	•	•						•			•		•	•	•	•				•

Source: U.S. Department of Labor's Occupational Information Network (O*NET) 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; communicating with supervisors, peers, or subordinates; organizing, planning, and prioritizing work; and identifying objects, actions, and events.

											W	or/	'k A	Ac	tiv	/iti	ies	 }									
Occupations	Analyzing Data or Information	Assisting and Caring for Others	and	Communicating with Persons Outside Organization	Communicating with Supervisors, Peers, or Subordinates	Controlling Machines and Processes	Coordinating the Work and Activities of Others	Establishing and Maintaining Interpersonal Relationships	Getting Information	Handling and Moving Objects	Identifying Objects, Actions, and Events	Interacting With Computers	mation for	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	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					1									_													
Coaches and Scouts			•		•		•	•			•			•				•		•	\dashv		•			•	_
General and Operations Managers		_	_	•	-		•	•							•		•	•	_		\dashv	•		\dashv	•	\dashv	_
Recreation Workers		•	•		•		•	•										•	•	•	\dashv	\dashv	•		•	\dashv	\exists
Market Research Analysts and Marketing Specialists	•			•	•			•	•		•				•			•			•						•
Meeting, Convention, and Event Planners				•	•			•	•	•	•							•	•				•				•
Requires Some College, Postsecondary Non-D	eg	jre	е	Α۱	wa	rd	, o	r /	Ass	so	cia	ate	's	De	eg	re	е										
Massage Therapists		•		•				•	•		•				•			•	•	•							•
Actors				•	•			•					•	•	•			•	•	•					•		
Teacher Assistants		•	•		•			•	•							•		•				•			•		•
Audio and Video Equipment Technicians					•	•		•			•	•			•	•						Ī	•		•		•
Skincare Specialists		•					•	•		•						•		•	•		T			•	•	7	•
Requires a High School Diploma or Equivalent	0	r L	_es	ss																							
Combined Food Preparation and Serving Workers, Including Fast Food			•		•		•	•	•	•	•								•			•				•	
Waiters and Waitresses					•		•	•	•	•	•								•	•	\sqcap	•		•		\sqcap	
Cooks, Restaurant					•		•	•		•	•				•		•	•		•		\dashv				•	
Counter Attendants, Cafeteria, Food Concession, and Coffee Shop					•		•	•	•		•					•			•			•		•		•	
Dishwashers			•		•	•		•		•						•		•		•	$ \uparrow $	\dashv				•	•

Source: U.S. Department of Labor's Occupational Information Network (O*NET) 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 Hig	her
Coaches and Scouts	 Recreational Therapists Secondary School Teachers, Except Special and Career/Technical Education Training and Development Managers
General and Operations Managers	Logistics ManagersPurchasing ManagersStorage and Distribution Managers
Recreation Workers	 Recreational Therapists Secondary School Teachers, Except Special and Career/Technical Social and Human Service Assistants
Market Research Analysts and Marketing Specialists	Financial AnalystsManagement AnalystsRisk Management Specialists
Meeting, Convention, and Event Planners	 Advertising and Promotion Managers Human Resources Specialists Public Relations and Fundraising Managers
Requires Some College, Postsecond	ary Non-Degree Award, or Associate's Degree
Massage Therapists	Hairdressers, Hairstylists, and CosmetologistsManicurists and PedicuristsSkincare Specialists
Actors	Costume AttendantsRadio and Television AnnouncersSingers
Teacher Assistants	 Childcare Workers Preschool Teachers, Except Special Education Social and Human Service Assistants
Audio and Video Equipment Technicians	Computer User Support SpecialistsFilm and Video EditorsSound Engineering Technicians
Skincare Specialists	Dental AssistantsMassage TherapistsMedical Assistants
Requires a High School Diploma or E	Equivalent or Less
Combined Food Preparation and Serving Workers, Including Fast Food	Cooks, Fast FoodFood Preparation WorkersFood Servers, Nonrestaurant
Waiters and Waitresses	 Counter Attendants, Cafeteria, Food Concession, and Coffee Shop Dining Room and Cafeteria Attendants and Bartender Helpers Hosts and Hostesses, Restaurant, Lounge, and Coffee Shop
Cooks, Restaurant	Cooks, Fast FoodCooks, Institution and CafeteriaFood Preparation Workers
Counter Attendants, Cafeteria, Food Concession, and Coffee Shop	 Cashiers Combined Food Preparation and Serving Workers, Including Fast Food Waiters and Waitresses
Dishwashers	 Helpers -Production Workers Janitors and Cleaners, Except Maids and Housekeeping Cleaners Stock Clerks -Stockroom, Warehouse, or Storage Yard

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

Employer Demand for the Hospitality and Tourism Cluster

The following table lists the San Francisco Bay Area Economic Sub-Market** employers in the Hospitality and Tourism cluster who posted the most job advertisements during the 120-day period ending March 10, 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 ¹⁹ (120-day period)	Prior Year Job Advertisements (120-day period)	Numerical Change	Year-Over Percent Change (HWOL Job Advertisements)
Taco Bell	186	15	171	1,140.0%
Chipotle	164	70	94	134.3%
24 Hour Fitness	90	238	-148	-62.2%
Red Robin	77	16	61	381.3%
California State Automobile Association	61	17	44	258.8%
Marriott	60	131	-71	-54.2%
Interstate Hotels & Resorts	57	7	50	714.3%
Boston Market Corporation	39	5	34	680.0%
Jamba Juice Company	39	50	-11	-22.0%
G6 Hospitality LLC	35	0	35	_
Vail Resorts	32	26	6	23.1%
Hilton Hotels & Resorts	28	15	13	86.7%
Sodexo, Inc.	24	40	-16	-40.0%
Hyatt	22	17	5	29.4%
Starbucks	22	157	-135	-86.0%
Guckenheimer	20	11	9	81.8%
American Bread Co Panera Bread	20	0	20	_
P.F. Chang's China Bistro	18	5	13	260.0%
Revolution Foods	18	4	14	350.0%
Hersha Hospitality	16	12	4	33.3%

Source: The Conference Board Help Wanted OnLine™ (HWOL) Data Series: Period ending March 10, 2015.

¹⁹ Totals do not include employers with anonymous job advertisements.

^{**} This economic sub-market includes Alameda, Contra Costa, and Solano Counties.

Instructional Programs for the Top Hospitality and Tourism Cluster Occupations

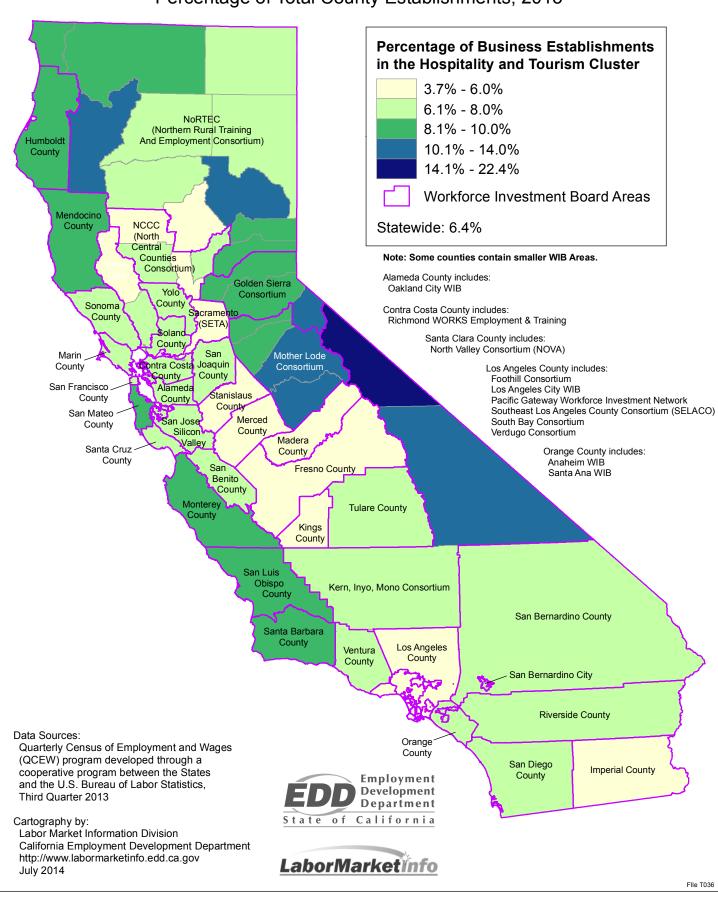
The table below provides examples of instructional programs related to some of the top occupations in the Hospitality and Tourism cluster, particularly those that require less than a bachelor's degree. These programs train individuals for occupations throughout many industries and are not limited to 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	Classifica	ation of Instructional Program (CIP)	Tax	conomy of Programs (TOP)
	CIP Code	CIP Title	TOP Code	TOP Title
	51.3501	Massage Therapy/Therapeutic Massage	126200	Massage Therapy
Massage Therapists	51.3502	Asian Bodywork Therapy		
	51.3503	Somatic Bodywork		
	50.0501	Drama and Dramatics/Theatre Arts, General	100700	Dramatic Arts
Actors	50.0506	Acting		
	50.0507	Directing and Theatrical Production		
	13.1501	Teacher Assistant/Aide	080200	Educational Aide (Teacher Assistant)
Teacher Assistants			080210	Educational Aide (Teacher Assistant), Bilingual
	01.0802	Agricultural Communication/ Journalism	100500	Commercial Music
Audio and Video Equipment Technicians	10.0201	Photographic and Film/Video Technology/Technician and Assistant	101200	Applied Photography
	10.0203	Recording Arts Technology/ Technician		
	12.0401	Cosmetology/Cosmetologist, General	300700	Cosmetology and Barbering
Skincare Specialists	12.0408	Facial Treatment Specialist/ Facialist		
	12.0409	Aesthetician/Esthetician and Skin Care Specialist		
Cooks, Restaurant	12.0500	Cooking and Related Culinary Arts, General	130630	Culinary Arts
	12.0503	Culinary Arts/Chef Training		

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

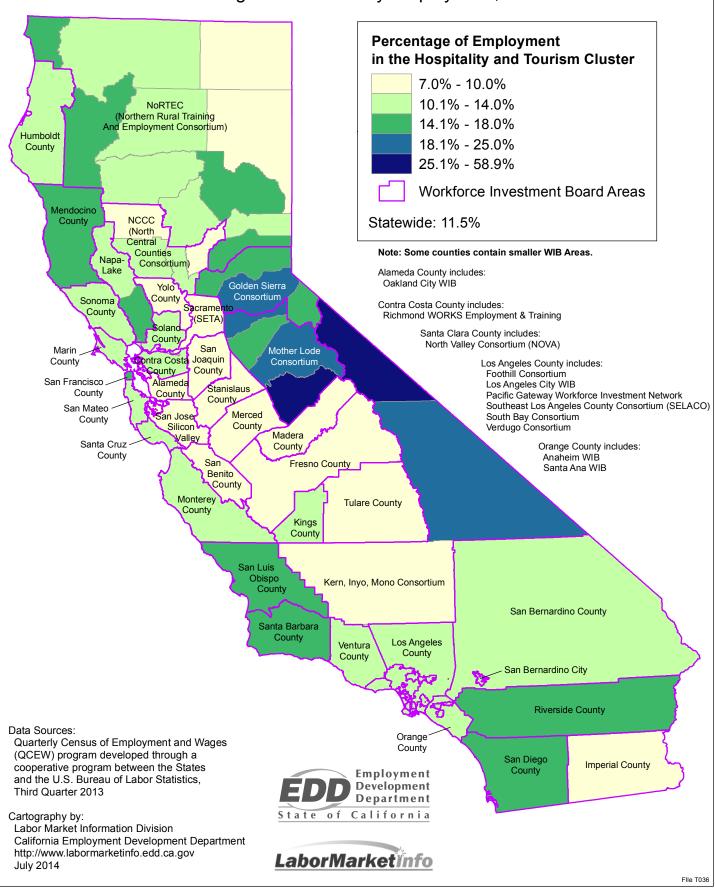
California Hospitality and Tourism Cluster

Percentage of Total County Establishments, 2013



California Hospitality and Tourism Cluster

Percentage of Total County Employment, 2013





Occupational Analysis: Retail Cluster

San Francisco Bay Area Economic Sub-Market
Alameda, Contra Costa, and Solano Counties
March 2015





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 San Francisco Bay Area Economic Sub-Market's** new job growth plus replacement openings. In sum, these 10 occupations represents approximately three-quarters of the 49,840 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.²⁰



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.

²⁰ U.S. Department of Labor's Occupational Information Network (O*NET) at www.onetonline.org.

²¹ 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.

²² Replacement job openings estimate the number of job openings created when workers retire or permanently leave an occupation and need to be replaced.

^{**} This economic sub-market includes Alameda, Contra Costa, and Solano Counties.

Top 10 Occupations and Recent Job Demand in the Retail Cluster

The table below further profiles the San Francisco Bay Area Economic Sub-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 recent 120-day period. HWOL compiles, analyzes, and categorizes job advertisements from numerous online job boards, including CalJOBS™ (www.caljobs.ca.gov), California's online job listing system.

Occupations	Total Job Openings ²³ (2012-2022)	Median Hourly Wage (2014)	Median Annual Wage (2014)	Entry Level Education ²⁴	HWOL Job Ads ²⁵ (120 days)
Cashiers	13,503	\$11.21	\$23,328	Less than high school	839
Retail Salespersons	12,423	\$11.39	\$23,683	Less than high school	4,078
Stock Clerks and Order Fillers	3,985	\$12.49	\$25,972	Less than high school	1,192
First-Line Supervisors of Retail Sales Workers	2,957	\$21.07	\$43,821	High school diploma or equivalent	3,013
Laborers and Freight, Stock, and Material Movers, Hand	1,645	\$13.65	\$28,386	Less than high school	801
Combined Food Preparation and Serving Workers, Including Fast Food	1,485	\$9.36	\$19,474	Less than high school	1,330
Automotive Service Technicians and Mechanics	1,049	\$23.06	\$47,965	High school diploma or equivalent	946
General and Operations Managers	689	\$55.08	\$114,569	Bachelor's degree	850
Customer Service Representatives	682	\$19.59	\$40,757	High school diploma or equivalent	2,437
Counter Attendants, Cafeteria, Food Concession, and Coffee Shop	657	\$9.75	\$20,281	Less than high school	178

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 OnLineTM (HWOL) Data Series, 120-day period ending March 10, 2015.

²³ Total job openings are the sum of new jobs and replacement job openings.

²⁴ U.S. Department of Labor, Bureau of Labor Statistics (BLS) 2012 education levels.

²⁵ Totals represent job advertisements from employers in all industries. One job opening may be represented in more than one job advertisement.

^{**} This economic sub-market includes Alameda, Contra Costa, and Solano Counties.

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 San Francisco Bay Area Economic Sub-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 ²⁶ (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	689	\$55.08	\$114,569	850
Pharmacists	389	\$67.20	\$139,760	205
Sales Managers	332	\$60.33	\$125,492	761
Loan Officers	79	\$34.81	\$72,419	574
Market Research Analysts and Marketing Specialists	76	\$37.98	\$79,009	717
Requires Some College, Postsecondary	Non-Degree Av	vard, or Associa	ate's Degree	
Computer, Automated Teller, and Office Machine Repairers	60	\$17.72	\$36,848	8
Heavy and Tractor-Trailer Truck Drivers	54	\$21.51	\$44,744	1,685
First-Line Supervisors of Production and Operating Workers	41	\$33.42	\$69,520	1,031
Hairdressers, Hairstylists, and Cosmetologists	38	\$12.67	\$26,345	378
Computer User Support Specialists	34	\$28.82	\$59,961	1,431
Requires a High School Diploma or Equi	ivalent or Less			
Cashiers	13,503	\$11.21	\$23,328	839
Retail Salespersons	12,423	\$11.39	\$23,683	4,078
Stock Clerks and Order Fillers	3,985	\$12.49	\$25,972	1,192
First-Line Supervisors of Retail Sales Workers	2,957	\$21.07	\$43,821	3,013
Laborers and Freight, Stock, and Material Movers, Hand	1,645	\$13.65	\$28,386	801

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 OnLineTM (HWOL) Data Series, 120-day period ending March 10, 2015.

²⁶ Total job openings are the sum of new jobs and replacement job openings.

^{**} This economic sub-market includes Alameda, Contra Costa, and Solano Counties.

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 monitoring, active listening 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).

													S	kil	ls												
Occupations	Active Learning	Active Listening	Complex Problem Solving		Critical Thinking	Equipment Maintenance	Instructing	Judgment and Decision Making	Learning Strategies	Management of Personnel Resources	Mathematics	Monitoring	Negotiation	Operation and Control	Operation Monitoring	Persuasion	Reading Comprehension	Repairing	Science	Service Orientation	Social Perceptiveness	Speaking	Systems Analysis	Systems Evaluation	Time Management	Troubleshooting	Writing
Requires a Bachelor's Degree or Higher			ļ																								
General and Operations Managers	•	•	_	•	•					•		•					•				•	•					•
Pharmacists	•	•	'		•		•					•					•		•		•	•					•
Sales Managers				•	•			•		•		•				•					•	•			•		•
Loan Officers	•	•	•		•			•			•						•			•		•					•
Market Research Analysts and Marketing Specialists	•	•			•			•				•					•					•	•	•			•
Requires Some College, Postsecondary N	lor	1-[De	gre	ee .	A۷	<i>ı</i> ar	d,	or .	As	so	ci	ate	's	De	gı	ee	•									
Computer, Automated Teller, and Office Machine Repairers	•	•	,		•							•		•	•		•	•				•				•	
Heavy and Tractor-Trailer Truck Drivers		•	•		•	•						•		•	•		•					•			•		
First-Line Supervisors of Production and Operating Workers		•	,	•	•					•		•					•				•	•			•		•
Hairdressers, Hairstylists, and Cosmetologists	•	•	,		•		•		•			•				•				•	•	•					
Computer User Support Specialists	•	•		•	•		•					•					•			•		•					•
Requires a High School Diploma or Equiv	ale	en	t o	r l	_es	S																					
Cashiers		•	L	•	•							•					•			•	•	•			•		•
Retail Salespersons		•			•							•	•			•	•			•	•	•					•
Stock Clerks and Order Fillers ²⁷	•	•	•	•	•							•					•			•	•	•					
First-Line Supervisors of Retail Sales Workers					•		•			•		•	•			•	•				•	•			•		
Laborers and Freight, Stock, and Material Movers, Hand		•	•	•	•							•		•	•		•					•				•	

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

²⁷ Work activities listed 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 relationships; organizing, planning, and prioritizing work; communicating with supervisors, peers, or subordinates; and making decisions and solving problems.

													,	Νc	rk	Α	ct	ivi	tie	s												
Occupations	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	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			Monitor Processes, Materials, or Surroundings		Operating Vehicles, Mechanized Devices, or Equipment		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 Hi																																
General and Operations Managers				•	•		•	•								•		•		•							•	•		•		
Pharmacists	•	•						•	•				•				•			•	•		•									•
Sales Managers			•	•	•		•	•			•					•				•							•		•			
Loan Officers				•				•		•						•				•	•		•	•			•					•
Market Research Analysts and Marketing Specialists	•			•	•			•		•			•			•				•			•									•
Requires Some College, Postsecon	da	ry	Ν	on	-D	eg	jre	e .	A۷	va	rd,	, O I	r A	sel	50 (cia	ite	's	De	egi	re	е										
Computer, Automated Teller, and Office Machine Repairers					•			•					•		•	•				•					•	•				•		•
Heavy and Tractor-Trailer Truck Drivers						•		•		•		•	•	•		•			•	•		•										
First-Line Supervisors of Production and Operating Workers			•		•	•	•	•			•	•												•			•	•				
Hairdressers, Hairstylists, and Cosmetologists		•		•				•		•		•								•	•			•						•		•
Computer User Support Specialists					•			•		•			•		•	•				•			•							•		•
Requires a High School Diploma or	E	qu	iva	ale	nt	OI	r L	.es	s																							
Cashiers				•	•			•		•		•				•					•	•					•		•			
Retail Salespersons				•	•			•				•				•				•	•								•	•]	•
Stock Clerks and Order Fillers ²⁸					•	•		•				•	•							•	•	•									•	•
First-Line Supervisors of Retail Sales Workers			•		•			•		•		•				•				•	•						•	•				
Laborers and Freight, Stock, and Material Movers, Hand					•	•		•	•			•	•				•		•	•		•										

Source: U.S. Department of Labor's <u>Occupational Information Network (O*NET)</u> at www.onetonline.org.

²⁸ Skills listed 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 H	igher
General and Operations Managers	Logistics ManagersPurchasing ManagersStorage and Distribution Managers
Pharmacists	 Health Specialties Teachers, Postsecondary Medical Scientists, Except Epidemiologists Nursing Instructors and Teachers, Postsecondary
Sales Managers	 Advertising and Promoting Managers Financial Managers, Branch or Department Marketing Managers
Loan Officers	Custom BrokersInsurance Sales AgentsPersonal Financial Advisors
Market Research Analysts and Marketing Specialists	Financial AnalystsManagement AnalystsRisk Management Specialists
Requires Some College, Postsecon	ndary Non-Degree Award, or Associate's Degree
Computer, Automated Teller, and Office Machine Repairers	 Audio and Video Equipment Technicians Computer User Support Specialist Radio Mechanics
Heavy and Tractor-Trailer Truck Drivers	 Light Truck or Delivery Services Drivers Motorboat Operators Pile-Driver Operators
First-Line Supervisors of Production and Operating Workers	 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	Manicurists and PedicuristsMassage TherapistsSkincare Specialists
Computer User Support Specialists	Computer OperatorsDesktop PublishersWeb Administrators
Requires a High School Diploma o	r Equivalent or Less
Cashiers	Counter and Rental ClerksStock Clerks, Sales FloorWaiters and Waitresses
Retail Salespersons	BartendersHotel, Motel, and Resort Desk ClerksTellers
Stock Clerks and Order Fillers	 Hosts and Hostesses, Restaurant, Lounge, and Coffee Shop Marking Clerks Stock Clerks -Stockroom, Warehouse, or Storage Yard
First-Line Supervisors of Retail Sales Workers	 First-Line Supervisors of Food Preparation and Serving Workers Hotel, Motel, and Resort Desk Clerks Retail Salespersons
Laborers and Freight, Stock, and Material Movers, Hand	 Fence Erectors Industrial Truck and Tractor Operators Reinforcing Iron and Rebar Workers

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

Employer Demand for the Retail Cluster

The following table lists the San Francisco Bay Area Economic Sub-Market** employers in the Retail cluster who posted the most job advertisements during the 120-day period ending March 10, 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 ²⁹ (120-day period)	Prior Year Job Advertisements (120-day period)	Numerical Change	Year-Over Percent Change (HWOL Job Advertisements)
Ross Stores	5,013	39	4,974	12,753.8%
Safeway Companies	672	325	347	106.8%
Macy's	386	280	106	37.9%
Whole Foods	270	147	123	83.7%
Home Depot	262	111	151	136.0%
Lowe's	187	155	32	20.6%
Target Corporation	143	51	92	180.4%
Office Depot	105	29	76	262.1%
Sears Holdings Corporation	105	352	-247	-70.2%
Toys"R"Us	102	136	-34	-25.0%
Dollar Tree Stores, Inc.	94	42	52	123.8%
Chevron	80	246	-166	-67.5%
The Men's Wearhouse, Inc.	78	23	55	239.1%
Nordstrom	75	74	1	1.4%
Tesla Motors	66	104	-38	-36.5%
T-Mobile	59	136	-77	-56.6%
Dick's Sporting Goods, Inc.	59	52	7	13.5%
Rite Aid	49	29	20	69.0%
Sprint Corporation	46	67	-21	-31.3%
Gap, Inc.	43	51	-8	-15.7%

Source: The Conference Board Help Wanted OnLine™ (HWOL) Data Series: Period ending March 10, 2015.

²⁹ Totals do not include employers with anonymous job advertisements.

^{**} This economic sub-market includes Alameda, Contra Costa, and Solano Counties.

Instructional Programs for the 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
Computer, Automated Teller, and Office Machine Repairers	47.0102 47.0104	Business Machine Repair Computer Installation and Repair Technology/Technician	093410	Computer Electronics
Heavy and Tractor- Trailer Truck Drivers	49.0205	Truck and Bus Driver/Commercial Vehicle Operator and Instructor	094750	Truck and Bus Driving
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	52.0212 52.1803 52.1804	Retail Management Retailing and Retail Operations Selling Skills and Sales Operations	050650 050940 050960	Retail Store Operations and Management Sales and Salesmanship Display

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

California Retail Cluster Percentage of Total County Establishments, 2013 **Percentage of Business Establishments** in the Retail Cluster 4.3% - 5.5% 5.6% - 6.5% NoRTEC (Northern Rural Training 6.6% - 7.5% And Employment Consortium) Humboldt 7.6% - 8.5% County 8.6% - 9.6% Workforce Investment Board Areas Mendocino County NCCC Statewide: 6.4% (North Central Note: Some counties contain smaller WIB Areas. Countie Napa-Consortium Lake Alameda County includes: Golden Sierra Oakland City WIB Yolo Consortium County Contra Costa County includes: Sacramento County Richmond WORKS Employment & Training Solano Santa Clara County includes: County North Valley Consortium (NOVA) Marin Mother Lode Contra Costa Joaquin County Los Angeles County includes: County County Foothill Consortium San Francisco Alameda Los Angeles City WIB Stanislaus County County Pacific Gateway Workforce Investment Network County Southeast Los Angeles County Consortium (SELACO) San Mateo Merced San Jose South Bay Consortium County County Silicon Verdugo Consortium Valley Santa Cruz Orange County includes: County County Anaheim WIB Fresno County Santa Ana WIB Benito County Monterey **Tulare County** County County San Luis Obispo Kern, Inyo, Mono Consortium County San Bernardino County Santa Barbara County Los Angeles Ventura County County San Bernardino City Riverside County Data Sources: Orange Quarterly Census of Employment and Wages County (QCEW) program developed through a San Diego Imperial County cooperative program between the States County **Employment** and the U.S. Bureau of Labor Statistics, Development Third Quarter 2013 Department State of California Cartography by: **Labor Market Information Division** California Employment Development Department http://www.labormarketinfo.edd.ca.gov LaborMarketinfo July 2014

California Retail Cluster

Percentage of Total County Employment, 2013

