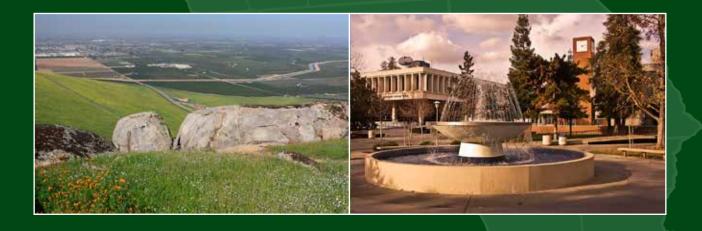


Regional Economic Analysis Profile

San Joaquin Valley Economic Sub-Market Fresno, Kern, Kings, Madera, and Tulare Counties April 2015







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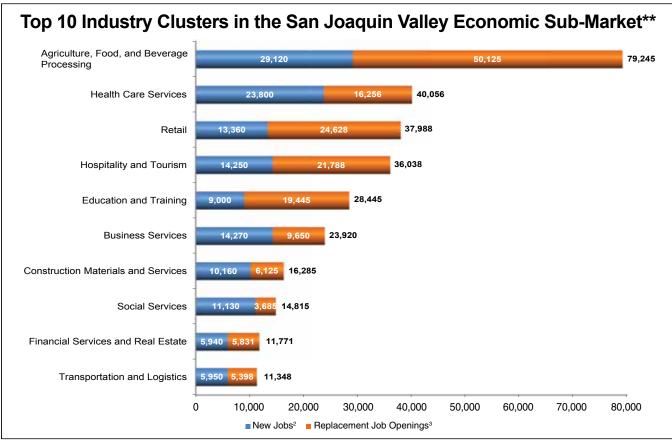
SUMMARY OF THE SAN JOAQUIN VALLEY ECONOMIC SUB-MARKET INDUSTRY CLUSTERS

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 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 <u>www.labormarketinfo.edd.ca.gov</u>.

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 Řeplacement 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 San Joaquin Valley 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 Agriculture, Food, and Beverage Processing

industry cluster includes establishments primarily engaged in growing crops, raising animals, and manufacturing food and beverages, as well as support activities for crop and animal production. During 2013-2014,* this cluster employed nearly 196,000 people in the economic sub-market, accounting for 24.2 percent of the workforce. Top industries in this cluster include:

- Support Activities for Crop Production
- Fruit and Tree Nut Farming
- Cattle Ranching and Farming
- Other Food Manufacturing
- Fruit and Vegetable Preserving and Specialty Food Manufacturing

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 nearly 86,000 people in the economic sub-market during 2013-2014,* accounting for 10.6 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
- · Offices of Physicians
- Nursing Care Facilities (Skilled Nursing Facilities)
- Continuing Care Retirement Communities and Assisted Living Facilities for the Elderly
- Outpatient Care Centers

The **Retail** industry cluster includes grocery and department stores, dollar stores, retail pharmacies, and clothing specialty stores. During 2013-2014,* this cluster employed almost 83,000 workers, or about 10.2 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
- Gasoline Stations

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 more than 67,000 workers, or 8.3 percent of the economic sub-market's employment. Industries within this cluster with the most projected job openings include:

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

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 nearly 84,000 people in the economic sub-market, accounting for 10.3 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
- Technical and Trade Schools

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 47,000 people during 2013-2014,* or 5.8 percent of the economic sub-market's workforce. Top industries in this cluster include:

- Employment Services
- · Services to Buildings and Dwellings
- Management of Companies and Enterprises
- · Investigation and Security Services
- Other Support Services

^{*} 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 Fresno, Kern, Kings, Madera, and Tulare Counties.

INDUSTRY CLUSTER DESCRIPTIONS

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 35,000 workers made up the cluster's employment, representing 4.3 percent of the economic sub-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

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 nearly 31,000 people and accounted for 3.8 percent of the economic sub-market's workforce in 2013-2014.* Industries include:

- Individual and Family Services
- Vocational Rehabilitation Services
- Child Day Care Services
- Community Food and Housing, and Emergency and Other Relief 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. During 2013-2014,* nearly 24,000 workers made up the cluster's employment, representing 2.9 percent of the economic sub-market's total workforce. Industries showing the highest projected job openings include:

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

The **Transportation and Logistics** cluster is made up of interrelated industries such as refrigerated warehousing, self-storage facilities, freight transporting companies, and overnight delivery businesses. In 2013-2014,* almost 27,000 workers were employed in this cluster, making up 3.3 percent of the economic sub-market's workforce population. Industries showing the highest projected job openings include:

- Warehousing and Storage
- General Freight Trucking
- Specialized Freight Trucking
- Couriers and Express Delivery Services
- Commercial and Industrial Machinery and Equipment (except Automotive and Electronic) Repair and Maintenance

* 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 Joaquin Valley Economic Sub-Market.**

Agriculture, Food, and Beverage Processing

- 1111 Oilseed and Grain Farming
- 1112 Vegetable and Melon Farming
- 1113 Fruit and Tree Nut Farming
- 1114 Greenhouse, Nursery, and Floriculture Production
- 1119 Other Crop Farming
- 1121 Cattle Ranching and Farming
- 1122 Hog and Pig Farming
- 1123 Poultry and Egg Production
- 1124 Sheep and Goat Farming
- 1125 Aquaculture
- 1129 Other Animal Production
- 1151 Support Activities for Crop Production
- 1152 Support Activities for Animal Production
- 3111 Animal Food Manufacturing
- 3112 Grain and Oilseed Milling
- Sugar and Confectionery Product Manufacturing
 Fruit and Vegetable Preserving and Specialty
- Food Manufacturing
- 3115 Dairy Product Manufacturing
- 3116 Animal Slaughtering and Processing
- 3117 Seafood Product Preparation and Packaging
- 3118 Bakeries and Tortilla Manufacturing
- 3119 Other Food Manufacturing
- 3121 Beverage Manufacturing
- 3122 Tobacco Manufacturing
- 3253 Pesticide, Fertilizer, and Other Agricultural Chemical Manufacturing
- 3261 Plastics Product Manufacturing

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

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

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

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

INDUSTRY CLUSTER DEFINITIONS

Business Services

- 5511 Management of Companies and Enterprises
- 5611 Office Administrative Services
- 5612 Facilities Support Services
- 5613 Employment Services
- 5614 Business Support Services
- 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

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
- 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

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

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

Transportation and Logistics

- 3365 Railroad Rolling Stock Manufacturing
- 3366 Ship and Boat Building
- 4811 Scheduled Air Transportation
- 4812 Nonscheduled Air Transportation
- 4821 Rail Transportation
- 4831 Deep Sea, Coastal, and Great Lakes Water Transportation
- 4832 Inland Water Transportation
- 4841 General Freight Trucking
- 4842 Specialized Freight Trucking
- 4851 Urban Transit Systems
- 4852 Interurban and Rural Bus Transportation
- 4853 Taxi and Limousine Service
- 4854 School and Employee Bus Transportation
- 4855 Charter Bus Industry
- 4859 Other Transit and Ground Passenger Transportation
- 4881 Support Activities for Air Transportation
- 4882 Support Activities for Rail Transportation
- 4883 Support Activities for Water Transportation
- 4884 Support Activities for Road Transportation
- 4885 Freight Transportation Arrangement
- 4889 Other Support Activities for Transportation
- 4921 Couriers and Express Delivery Services
- 4922 Local Messengers and Local Delivery
- 4931 Warehousing and Storage
- 5321 Automotive Equipment Rental and Leasing
- 8113 Commercial and Industrial Machinery and Equipment (except Automotive and Electronic) Repair and Maintenance



Occupational Analysis: Agriculture, Food, and Beverage Processing Cluster

San Joaquin Valley Economic Sub-Market Fresno, Kern, Kings, Madera, and Tulare Counties April 2015



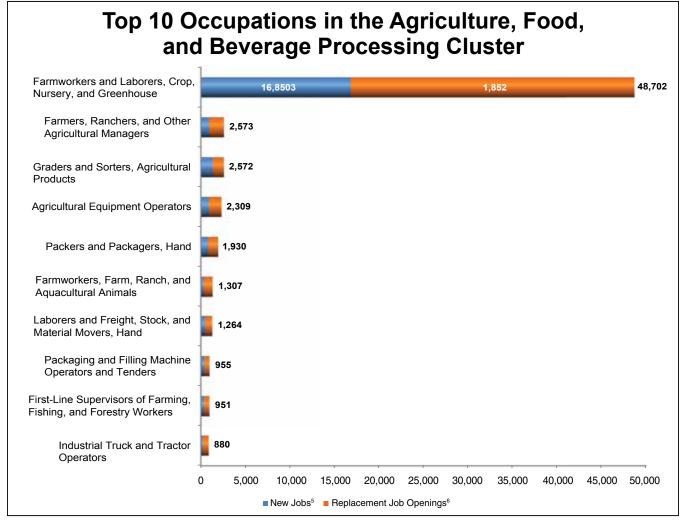


What is the Agriculture, Food, and Beverage Processing Cluster?

The Agriculture, Food, and Beverage Processing cluster is comprised of 26 industries related to crop and animal farming as well as food and beverage manufacturing. 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 Agriculture, Food, and Beverage Processing Cluster

The graph below identifies the top 10 occupations in the Agriculture, Food, and Beverage Processing cluster, based on the San Joaquin Valley Economic Sub-Market's^{**} new job growth plus replacement openings. In sum, these 10 occupations represent more than three-fourths of the 79,245 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 monitoring.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 <u>www.labormarketinfo.edd.ca.gov</u>.

⁴ U.S. Department of Labor's <u>Occupational Information Network (O*NET)</u> 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 Agriculture, Food, and Beverage Processing Cluster

The table below further profiles the San Joaquin Valley Economic Sub-Market's** top 10 occupations in the Agriculture, Food, and Beverage Processing 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 ⁷ (2012-2022)	Median Hourly Wage (2014)	Median Annual Wage (2014)	Entry Level Education ⁸	HWOL Job Ads ⁹ (120 days)
Farmworkers and Laborers, Crop, Nursery, and Greenhouse	48,702	\$9.14	\$19,010	Less than high school	41
Farmers, Ranchers, and Other Agricultural Managers	2,573	\$43.23	\$89,913	High school diploma or equivalent	50
Graders and Sorters, Agricultural Products	2,572	\$9.15	\$19,030	Less than high school	7
Agricultural Equipment Operators	2,309	\$10.27	\$21,361	Less than high school	20
Packers and Packagers, Hand	1,930	\$9.47	\$19,693	Less than high school	48
Farmworkers, Farm, Ranch, and Aquacultural Animals	1,307	\$10.84	\$22,548	Less than high school	48
Laborers and Freight, Stock, and Material Movers, Hand	1,264	\$11.18	\$23,248	Less than high school	498
Packaging and Filling Machine Operators and Tenders	955	\$11.83	\$24,596	High school diploma or equivalent	42
First-Line Supervisors of Farming, Fishing, and Forestry Workers	951	\$15.29	\$31,796	High school diploma or equivalent	41
Industrial Truck and Tractor Operators	880	\$12.65	\$26,307	Less than high school	288

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 15, 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 Fresno, Kern, Kings, Madera, and Tulare Counties.

Top Occupations for the Agriculture, Food, and Beverage Processing 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 Agriculture, Food, and Beverage Processing cluster. The table includes the San Joaquin Valley 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 High	ner			
General and Operations Managers	300	\$42.65	\$88,719	283
Accountants and Auditors	231	\$29.93	\$62,261	649
Industrial Production Managers	177	\$40.51	\$84,262	68
Food Scientists and Technologists	120	\$26.13	\$54,358	15
Financial Managers	88	\$46.27	\$96,245	275
Requires Some College, Postseconda	ary Non-Degree	Award, or Asso	ociate's Degree	
Heavy and Tractor-Trailer Truck Drivers	534	\$18.25	\$37,956	3,612
First-Line Supervisors of Production and Operating Workers	321	\$26.55	\$55,238	691
Agricultural and Food Science Technicians	187	\$17.66	\$36,748	33
Heating, Air Conditioning, and Refrigeration Mechanics and Installers	35	\$20.64	\$42,927	237
Electrical and Electronics Repairers, Commercial and Industrial Equipment	24	\$28.57	\$59,426	17
Requires a High School Diploma or E	quivalent or Le	ss		
Farmworkers and Laborers, Crop, Nursery, and Greenhouse	48,702	\$9.14	\$19,010	41
Farmers, Ranchers, and Other Agricultural Managers	2,573	\$43.23	\$89,913	50
Graders and Sorters, Agricultural Products	2,572	\$9.15	\$19,030	7
Agricultural Equipment Operators	2,309	\$10.27	\$21,361	20
Packers and Packagers, Hand	1,930	\$9.47	\$19,693	48

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 15, 2015.

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

Skill Requirements in the Agriculture, Food, and Beverage Processing Cluster

The table below lists the 10 top skills required for top occupations in the Agriculture, Food, and Beverage Processing cluster, categorized by entry-level education requirements. Active listening and critical thinking are the most commonly shared skills, followed by speaking, 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).

		_											S	kil	ls											
Occupations	Active Learning	Active Listening	Complex Problem Solving	Coordination	Critical Thinking	Equipment Maintenance	Installation	Instructing	Judgment and Decision Making	Learning Strategies	Management of Personnel Resources	Mathematics	Monitoring	Operation and Control	Operation Monitoring	Persuasion	Quality Control Analysis	Reading Comprehension	Repairing	Science	Social Perceptiveness	Speaking	Systems Analysis	Time Management	Iroubleshooting	Writing
Requires a Bachelor's Degree or Higher			1									1													L	
General and Operations Managers	•	•		•	•						•		•					•			•	•			'	•
Accountants and Auditors ¹¹	•	•			•				•			•	•					•				•	•		'	•
Industrial Production Managers	•	•		•	•				•		•		•					•				•		•	\downarrow	
Food Scientists and Technologists	•	•	•	•	•				•				•					•				•			'	•
Financial Managers ¹²	•	•			•					•			•			•		•			•	•				•
Requires Some College, Postsecondary Non-D)e(gre	ee .	Av	vai	٠d,	01	· A	SS	00	ia	te'	s [De	gre	e									Ļ	
Heavy and Tractor-Trailer Truck Drivers		•	•		•	•							•	•	•			•				•		•		
First-Line Supervisors of Production and Operating Workers		•		•	•						•		•					•			•	•		•		•
Agricultural and Food Science Technicians ¹³	•	•	•		•							•	•					•		•		•				•
Heating, Air Conditioning, and Refrigeration Mechanics and Installers ¹⁴		•		•	•	•	•										•	•	•			•		•	•	
Electrical and Electronics Repairers, Commercial and Industrial Equipment		•	•		•	•								•	•		•	•	•					•	•	
Requires a High School Diploma or Equivalent	t o	r L	_es	s																						
Farmworkers and Laborers, Crop, Nursery, and Greenhouse ¹⁵		•		•	•	•		•			•		•	•	•				•							
Farmers, Ranchers, and Other Agricultural Managers ¹⁶		•			•			•			•		•					•			•	•		•		
Graders and Sorters, Agricultural Products		•	•	•	•				•				•			•					•	•		•		
Agricultural Equipment Operators		•		•	•	•								•	•		•		•			•		•	•	
Packers and Packagers, Hand		ullet		•					•				•				•	•				•		•	(•

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

¹¹ Skills represent Accountants, a specialty occupation of Accountants and Auditors.

¹² Skills represent Financial Managers, Branch or Department, a specialty occupation of Financial Managers.

¹³ Skills represent Agricultural Technicians, a specialty occupation of Agricultural and Food Science Technicians.

¹⁴ Skills represent Heating and Air Conditioning Mechanics and Installers, a specialty occupation of Heating, Air Conditioning, and Refrigeration Mechanics Installers.

¹⁵ Skills represent Farmworkers and Laborers, Crop, a specialty occupation of Farmworkers and Laborers, Crop, Nursery, and Greenhouse.

¹⁶ Skills represent Nursery and Greenhouse Managers, a specialty occupation of Farmers, Ranchers and other Agricultural Managers.

Work Activities in the Agriculture, Food, and Beverage Processing Cluster

The table below lists the 10 top work activities required for top occupations in the Agriculture, Food, and Beverage Processing cluster, categorized by entry-level education requirements. The most common include organizing, planning, and prioritizing work; making decisions and solving problems; and establishing and maintaining interpersonal relationships.

										_		١	Vo	rk	A	cti	vit	ie	s											
Occupations	Analyzing Data or Information	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 Helationships Evaluation Information to Determine Compliance with Standards	Getting Information	Geturing momentation 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 Administrative Activities	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	Thinking Creatively	Training and Teaching Others	Updating and Using Relevant Knowledge
Requires a Bachelor's Degree or Highe	r	1	1																											
General and Operations Managers			•	•		•			T						•		•	-	•							•	•	•	Т	
Accountants and Auditors ¹⁷	•			•											•				•	•		•							1	•
Industrial Production Managers				\bullet		•									•	•	•		•							•	•			
Food Scientists and Technologists	•					•						•			•	•			•			•						•		•
Financial Managers ¹⁸		•		•		•				•				•	•				•							•				•
Requires Some College, Postsecondary N	0	n-C	De	gre	e /	Aw	ar	d, d	or .	As	so	cia	ite	's l	De	gr	ee													
Heavy and Tractor-Trailer Truck Drivers					•						•	•	•		•			•	•		•									
First-Line Supervisors of Production and Operating Workers		•			•	•				•	•												•			•	•			
Agricultural and Food Science Technicians ¹⁹											•	•			•	•			•		•	•						•	•	•
Heating, Air Conditioning, and Refrigeration Mechanics and Installers ²⁰	•				•						•		•		•				•		•			•	•				•	•
Electrical and Electronics Repairers, Commercial and Industrial Equipment				•			•				•				•	•			•					•	•				•	•
Requires a High School Diploma or Equiv	al	en	t o	r L	.es	s																								
Farmworkers and Laborers, Crop, Nursery, and Greenhouse ²¹					•						•	•						•			•							ľ	•	
Farmers, Ranchers, and Other Agricultural Managers ²²						•									•	•			•							•		•	ľ	•
Graders and Sorters, Agricultural Products				•	•	•					•		•						•		•								(•
Agricultural Equipment Operators					•						•		•		•	•	1	•	•		•				•		\square			
Packers and Packagers, Hand				•	•						•	•				•		0	•		•					•				

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

¹⁷ Work Activities represent Accountants, a specialty occupation of Accountants and Auditors.

¹⁸ Work Activities represent Financial Managers, Branch or Department, a specialty occupation of Financial Managers.

¹⁹ Work Activities represent Agricultural Technicians, a specialty occupation of Agricultural and Food Science Technicians.

²⁰ Work Activities represent Heating and Air Conditioning Mechanics and Installers, a specialty occupation of Heating, Air Conditioning, and Refrigeration Mechanics and Installers.

²¹ Work Activities represent Farmworkers and Laborers, Crop, a specialty occupation of Farmworkers and Laborers, Crop, Nursery, and Greenhouse.

²² Work Activities represent Nursery and Greenhouse Managers, a specialty occupation of Farmers, Ranchers and other Agricultural Managers.

Related Occupations for the Agriculture, Food, and Beverage Processing Cluster

The table below lists top occupations in the Agriculture, Food, and Beverage Processing 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 Agriculture, Food, and Beverage Processing cluster occupations.

Agriculture, Food, and Beverage Processing Occupations	Related Occupations
Requires a Bachelor's Degree of	or Higher
General and Operations Managers	 Logistics Managers Administrative Services Managers Storage and Distribution Managers
Accountants and Auditors	 Financial Analysts Compensation, Benefits, and Job Analysis Specialists Risk Management Specialists
Industrial Production Managers	 Industrial Engineers General and Operations Managers Food Service Managers
Food Scientists and Technologists	Biochemical EngineersValidation EngineersEnergy Engineers
Financial Managers	Sales ManagersHuman Resources SpecialistsMarketing Managers
Requires Some College, Postse	econdary Non-Degree Award, or Associate's Degree
Heavy and Tractor-Trailer Truck Drivers	 Light Truck or Delivery Services Drivers Excavating and Loading Machine and Dragline Operators Highway Maintenance Workers
First-Line Supervisors of Production and Operating Workers	 First-Line Supervisors of Mechanics, Installers, and Repairers First-Line Supervisors of Helpers, Laborers, and Material Movers, Hand First-Line Supervisors of Transportation and Material-Moving Machine and Vehicle Operators
Agricultural and Food Science Technicians	 Precision Agriculture Technicians Agricultural Inspectors Biological Technicians
Heating, Air Conditioning, and Refrigeration Mechanics and Installers	 Electricians Plumbers Pipe Fitters and Steamfitters
Electrical and Electronics Repairers, Commercial and Industrial Equipment	 Mechanical Engineering Technicians Manufacturing Production Technicians Robotics Technicians
Requires a High School Diplom	a or Equivalent or Less
Farmworkers and Laborers, Crop, Nursery, and Greenhouse	 Landscaping and Groundskeeping Workers Nursery Workers Janitors and Cleaners, Except Maids and Housekeeping Cleaners
Farmers, Ranchers, and Other Agricultural Managers	 First-Line Supervisors of Landscaping, Lawn Service, and Groundskeeping Workers First-Line Supervisors of Transportation and Material-Moving Machine and Vehicle Operators First-Line Supervisors of Aquacultural Workers
Graders and Sorters, Agricultural Products	 Food Preparation Workers Dining Room and Cafeteria Attendants and Bartender Helpers Stock Clerks- Stockroom, Warehouse, or Storage Yard
Agricultural Equipment Operators	 HelpersCarpenters Pile-Driver Operators Refuse and Recyclable Material Collectors
Packers and Packagers, Hand	 Cooks, Fast Food Shipping, Receiving, and Traffic Clerks Inspectors, Testers, Sorters, Samplers, and Weighers

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

Employer Demand for the Agriculture, Food, and Beverage Processing Cluster

The following table lists the San Joaquin Valley Economic Sub-Market^{**} employers in the Agriculture, Food, and Beverage Processing cluster who posted the most job advertisements during the 120-day period ending April 15, 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.

Agriculture, Food, and Beverage Processing Cluster Employers	Recent Job Advertisements ²³ (120-day period)	Prior Year Job Advertisements (120-day period)	Numerical Change	Year-Over Percent Change (HWOL Job Advertisements)
Paramount Citrus	69	72	-3	-4.2%
Paramount Farms	51	4	47	1,175.0%
Constellation Brands Inc.	31	12	19	158.3%
PepsiCo	25	25	0	0.0%
Grimmway Farms	24	31	-7	-22.6%
Bimbo Bakeries	21	7	14	200.0%
Kraft	21	14	7	50.0%
Coca-Cola Refreshments	20	33	-13	-39.4%
Neil Jones Food Company	19	22	-3	-13.6%
Land O' Lakes	18	29	-11	-37.9%
Foster Farms	15	14	1	7.1%
Nestle	13	16	-3	-18.8%
Dr Pepper Snapple Group	12	15	-3	-20.0%
Wm. Bolthouse Farms, Inc.	11	17	-6	-35.3%
Del Monte	10	12	-2	-16.7%
The Neil Jones Food Co dba Toma-Tek	10	0	10	_
Advanced Drainage Systems, Inc.	10	2	8	400.0%
Rich Products Corporation	9	2	7	350.0%
Landmark Vineyards	9	0	9	—
Leprino Foods Company	9	5	4	80.0%

Source: The Conference Board Help Wanted OnLine™ (HWOL) Data Series: Period ending April 15, 2015.

²³ Totals do not include employers with anonymous job advertisements.

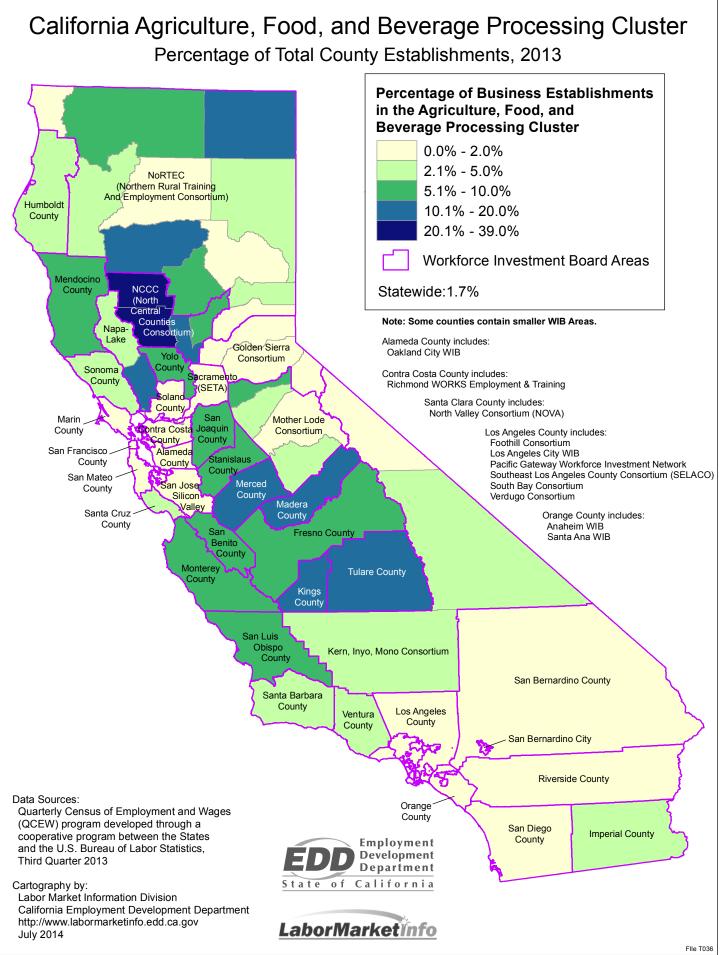
^{**} This Economic Sub-Market includes Fresno, Kern, Kings, Madera, and Tulare Counties.

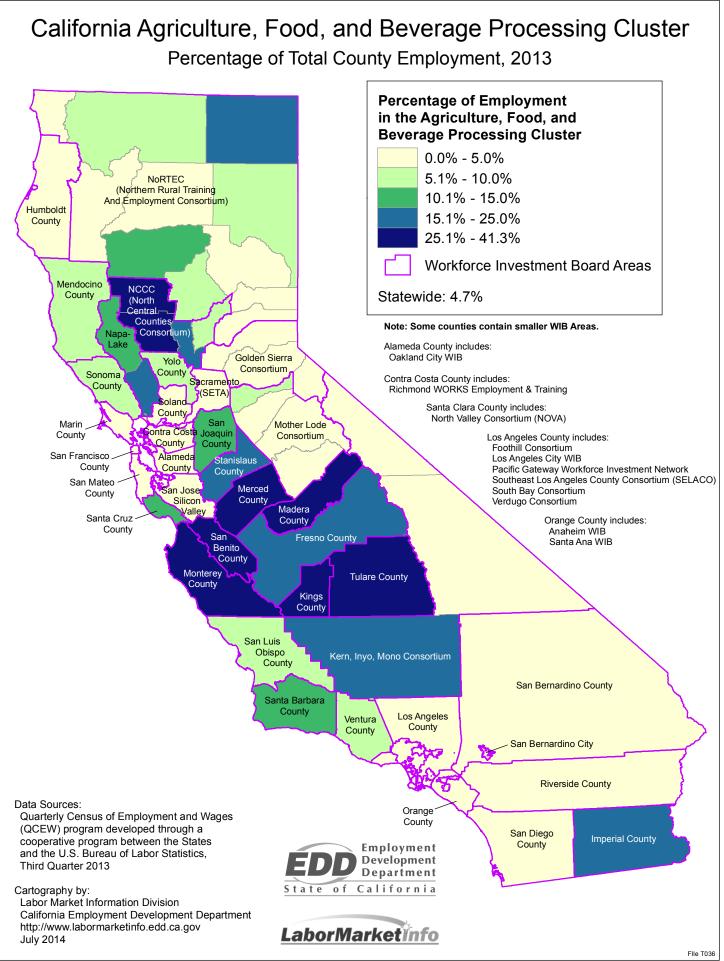
Instructional Programs for the Top Agriculture, Food, and Beverage Processing Cluster Occupations

The table below provides examples of instructional programs related to some of the top occupations in the Agriculture, Food, and Beverage Processing 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 Agriculture, Food, and Beverage Processing 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	Classifi	cation of Instructional Program (CIP)	Тах	conomy 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
First-Line Supervisors of Production and Operating Workers	52.0205	Operations Management and Supervision	N/A	N/A
Agricultural and Food Science Technicians	01.1002	Food Technology and Processing	011300	Food Processing and Related Technologies
Heating, Air Conditioning, and Refrigeration	15.0501	Heating, Ventilation, Air Conditioning and Refrigeration Engineering Technology/ Technician	094600	Environmental Control Technology
Mechanics and Installers	47.0201	Heating, Air Conditioning, Ventilation and Refrigeration Maintenance Technology/ Technician		
Electrical and Electronics Repairers,	47.0104	Computer Installation and Repair Technology/Technician	093410	Computer Electronics
Commercial and Industrial Equipment	47.0105	Industrial Electronics Technology/ Technician	093420	Industrial Electronics
Farmers, Ranchers,	01.0101	Agricultural Business and Management, General	010230	Dairy Science
and Other Agricultural Managers	01.0304	Crop Production	010400	Viticulture, Enology, and Wine Business
	01.0901	Animal Sciences, General	010900	Horticulture
Graders and Sorters, Agricultural Products	01.0105	Agricultural/Farm Supplies Retailing and Wholesaling	N/A	N/A

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







Occupational Analysis: Health Care Services Cluster

San Joaquin Valley Economic Sub-Market Fresno, Kern, Kings, Madera, and Tulare Counties April 2015



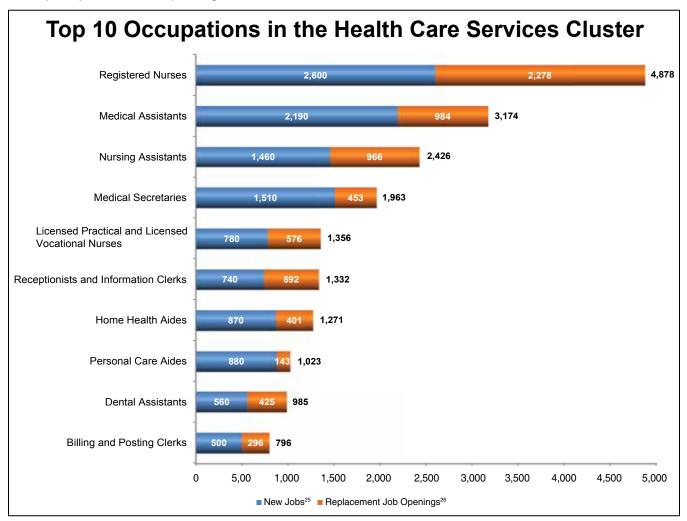


What is the Health Care Services Cluster?

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 Joaquin Valley Economic Sub-Market's^{**} new job growth plus replacement openings. In sum, these 10 occupations represent nearly one-half of the 40,056 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, social perceptiveness and speaking.²⁴



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 <u>www.labormarketinfo.edd.ca.gov</u>.

²⁴ U.S. Department of Labor's *Occupational Information Network (O*NET*) at www.onetonline.org.

²⁵ 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.

²⁶ 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 San Joaquin Valley 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 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 ²⁷ (2012-2022)	Median Hourly Wage (2014)	Median Annual Wage (2014)	Entry Level Education ²⁸	HWOL Job Ads ²⁹ (120 days)
Registered Nurses	4,878	\$37.94	\$78,905	Associate's degree	3,304
Medical Assistants	3,174	\$13.54	\$28,151	Postsecondary non-degree award	458
Nursing Assistants	2,426	\$11.80	\$24,547	Postsecondary non-degree award	328
Medical Secretaries	1,963	\$16.53	\$34,383	High school diploma or equivalent	744
Licensed Practical and Licensed Vocational Nurses	1,356	\$23.56	\$49,003	Postsecondary non-degree award	591
Receptionists and Information Clerks	1,332	\$12.13	\$25,215	High school diploma or equivalent	1,344
Home Health Aides	1,271	\$10.25	\$21,319	Less than high school	255
Personal Care Aides	1,023	\$9.27	\$19,284	Less than high school	488
Dental Assistants	985	\$14.78	\$30,749	Postsecondary non-degree award	266
Billing and Posting Clerks	796	\$15.84	\$32,957	High school diploma or equivalent	165

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 15, 2015.

²⁹ 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 Fresno, Kern, Kings, Madera, and Tulare Counties.

²⁷ Total job openings are the sum of new jobs and replacement job openings.

²⁸ U.S. Department of Labor, Bureau of Labor Statistics (BLS) 2012 education levels.

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 Joaquin Valley 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 ³⁰ (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	577	\$51.34	\$106,785	539
Family and General Practitioners	448	\$83.41	\$173,487	128
Nurse Practitioners	406	\$54.81	\$114,018	102
Physical Therapists	377	\$44.17	\$91,872	464
Physician Assistants	375	\$53.32	\$110,907	239
Requires Some College, Postsecondary N	on-Degree Awa	rd, or Associate	e's Degree	
Registered Nurses	4,878	\$37.94	\$78,905	3,304
Medical Assistants	3,174	\$13.54	\$28,151	458
Nursing Assistants	2,426	\$11.80	\$24,547	328
Licensed Practical and Licensed Vocational Nurses	1,356	\$23.56	\$49,003	591
Dental Assistants	985	\$14.78	\$30,749	266
Requires a High School Diploma or Equiva	alent or Less			
Medical Secretaries	1,963	\$16.53	\$34,383	744
Receptionists and Information Clerks	1,332	\$12.13	\$25,215	1,344
Home Health Aides	1,271	\$10.25	\$21,319	255
Personal Care Aides	1,023	\$9.27	\$19,284	488
Billing and Posting Clerks	796	\$15.84	\$32,957	165

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 April 15, 2015.

³⁰ 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 and critical thinking are the most commonly shared skills, followed by reading comprehension, and social perceptiveness. The skills and work activities identified for each occupation are from the U.S. Department of Labor's Occupational Information Network (O*NET).

	Skills																	
Occupations	Active Learning	Active Listening	Complex Problem Solving	Coordination	Critical Thinking	Instructing	Judgment and Decision Making	Learning Strategies	Mathematics	Monitoring	Operations Analysis	Reading Comprehension	Science	Service Orientation	Social Perceptiveness	Speaking	Time Management	Writing
Requires a Bachelor's Degree or Higher	1	1	1	1	1	1							1	1				
Medical and Health Services Managers		•		•	•		•			•	•	•			•	•	•	
Family and General Practitioners	•	•	•		•		•					•	•		•	•		•
Nurse Practitioners	•	•			•	•	•			•		•	•		•			•
Physical Therapists		•		•	•		•			•		•		•	•	•		•
Physician Assistants	•	•		•	•					•		•		•	•	•		•
Requires Some College, Postsecondary Non-Degr	ee A	٩wa	ard,	or	As	soc	iat	e's	De	gre	е							
Registered Nurses	•	•		•	•			•		•		•		•	•	•		
Medical Assistants	•	•		•	•							•		•	•	•		•
Nursing Assistants	•	•		•	•					•		•		•	•	•		•
Licensed Practical and Licensed Vocational Nurses		•		•	•					•		•		•	•	•	•	•
Dental Assistants	•	•			•	•				•		•		•	•	•		•
Requires a High School Diploma or Equivalent or I	_es	s											1					
Medical Secretaries		•		•	•					•		•		•	•	•	•	•
Receptionists and Information Clerks		•	•	•	•							•		•	•	•	•	•
Home Health Aides	•	•		•	•			•		•		•		•	•	•		
Personal Care Aides	•	•		•	•					•		•		•	•	•		•
Billing and Posting Clerks ³¹	•	•		•	•				•			•			•	•	•	•

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

³¹ Skills represent Billing, Cost, and Rate Clerks, a specialty occupation of Billing and Posting Clerks.

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; assisting and caring for others; and identifying objects, actions, and events.

										I	Wc	ork	A	cti	vit	ies	5								
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	Guiding, Directing, and Motivating Subordinates	Handling and Moving Objects	Identifying Objects, Actions, and Events	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	Updating and Using Relevant Knowledge
Requires a Bachelor's Degree or Higher	1								1													1			
Medical and Health Services Managers			•		•	•		•			•			•		•	•					•	•		
Family and General Practitioners	•	•					•	•		•			•	•	•						•				•
Nurse Practitioners		•					•	•		•			•	•	•		•		•						•
Physical Therapists		•					•	•				•	•	•	•					•				•	•
Physician Assistants	•	•						•		•			•	•	•				•		•				•
Requires Some College, Postsecondary Non-D)eg	re	e /	۱w	arc	d, c	or .	As	so	cia	ate	's	De	gı	'ee)									
Registered Nurses		•			•			•		•			•	•	•		•				•				•
Medical Assistants		•			•		•	•		•			•		•		•		•					\square	•
Nursing Assistants		•			•			•		•		•	•	•	•		•				•				
Licensed Practical and Licensed Vocational Nurses		•			•		•	•				•	•	•	•		•								•
Dental Assistants		•						•	•	•		•	•	•	•		•								•
Requires a High School Diploma or Equivalent	i or		es					_																	
Medical Secretaries		•		•	•			•		•			•	•			•				•			\downarrow	•
Receptionists and Information Clerks		•					•	•		•			•		•			•	•		•			\square	
Home Health Aides		•			•		•	•				•	•		•		•				•			\square	•
Personal Care Aides		•			•		•	•				•	•	•	•		•			•				\downarrow	
Billing and Posting Clerks ³²				•	•			•		•				•			•	•	•		•				•

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

³² Work Activities represent Billing, Cost, and Rate Clerks, a specialty occupation of Billing and Posting Clerks.

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 I	Higher
Medical and Health Services Managers	 Management Analysts Social and Community Service Managers Human Resources Managers
Family and General Practitioners	Physician AssistantsHospitalistsHealth Specialties Teachers, Postsecondary
Nurse Practitioners	 Clinical Nurse Specialists Nurse Midwives Naturopathic Physicians
Physical Therapists	 Health Specialties Teachers, Postsecondary Nursing Instructors and Teachers, Postsecondary Occupational Therapists
Physician Assistants	Nurse AnesthetistsNurse MidwivesNurse Practitioners
Requires Some College, Postseco	ondary Non-Degree Award, or Associate's Degree
Registered Nurses	 Critical Care Nurses Respiratory Therapists Cardiovascular Technologists and Technicians
Medical Assistants	 Pharmacy Technicians Social and Human Service Assistants Speech-Language Pathology Assistants
Nursing Assistants	• N/A
Licensed Practical and Licensed Vocational Nurses	 Physical Therapist Assistants Radiologic Technicians Occupational Therapy Assistants
Dental Assistants	 Endoscopy Technicians Surgical Technologists Dental Hygienists
Requires a High School Diploma	or Equivalent or Less
Medical Secretaries	 Receptionists and Information Clerks Medical Records and Health Information Technicians Bill and Account Collectors
Receptionists and Information Clerks	 Office Clerks, General Medical Records and Health Information Technicians Customer Service Representatives
Home Health Aides	Personal Care AidesPhysical Therapist AidesOccupational Therapy Aides
Personal Care Aides	 Ambulance Drivers and Attendants, Except Emergency Medical Technicians Lifeguards, Ski Patrol, and Other Recreational Protective Service Workers Childcare Workers
Billing and Posting Clerks	 Bookkeeping, Accounting, and Auditing Clerks Executive Secretaries and Executive Administrative Assistants Legal Secretaries

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

Employer Demand for the Health Care Services Cluster

The following table lists the San Joaquin Valley Economic Sub-Market^{**} employers in the Health Care Services cluster who posted the most job advertisements during the 120-day period ending April 15, 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 ³³ (120-day period)	Prior Year Job Advertisements (120-day period)	Numerical Change	Year-Over Percent Change (HWOL Job Advertisements)
Kern Medical Center	327	1	326	32,600.0%
Children's Hospital Central California	184	171	13	7.6%
Kaiser Permanente	166	50	116	232.0%
Dignity Health	154	435	-281	-64.6%
Kaweah Delta Medical Center	102	67	35	52.2%
Onward Healthcare	101	47	54	114.9%
San Joaquin Community Hospital	88	93	-5	-5.4%
Mercy Hospital	82	15	67	446.7%
Adventist HealthCare	73	52	21	40.4%
American Mobile Healthcare	58	60	-2	-3.3%
Brookdale Senior Living	54	42	12	28.6%
Golden Living	52	53	-1	-1.9%
Optimal Health Services	39	13	26	200.0%
Western Dental	35	22	13	59.1%
Central California Faculty Medical Group	32	34	-2	-5.9%
Delano Regional Medical Center	32	29	3	10.3%
Aureus Medical	29	0	29	—
Saint Agnes Medical Center	28	45	-17	-37.8%
Avalon Health Care, Inc.	28	21	7	33.3%
Clinica Sierra Vista	26	11	15	136.4%

Source: The Conference Board Help Wanted OnLine™ (HWOL) Data Series: Period ending April 15, 2015.

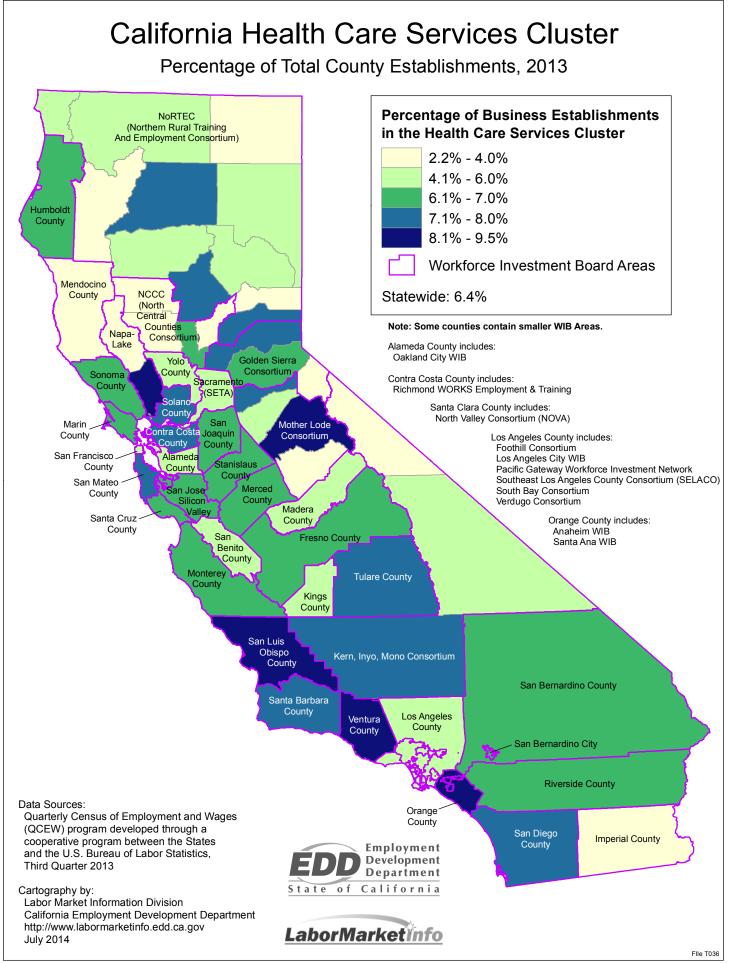
³³ Totals do not include employers with anonymous job advertisements.

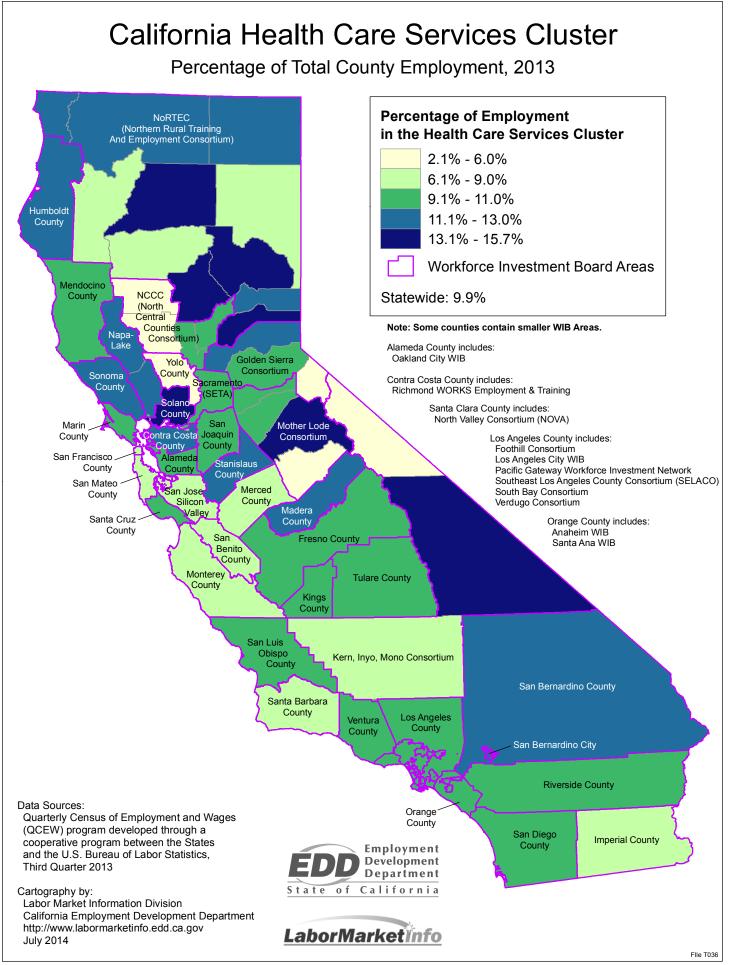
Instructional Programs for the Top Health Care Services Cluster Occupations

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	Classif	ication of Instructional Program (CIP)	Тах	onomy of Programs (TOP)
	CIP Code	CIP Title	TOP Code	TOP Title
	51.3801	Registered Nursing/Registered Nurse	123000	Nursing
Registered Nurses	51.3811	Public Health/Community Nurse/ Nursing	123010	Registered Nursing
	51.3816	Emergency Room/Trauma Nursing		
	51.0710	Medical Office Assistant/Specialist	051420	Medical Office Technology
Medical Assistants	51.0713	Medical Insurance Coding Specialist/Coder	120810	Clinical Medical Assisting
	51.0809	Anesthesiologist Assistant	122310	Health Information Coding
	51.2601	Health Aide	123030	Certified Nurse Assistant
Nursing Assistants	51.3902	Nursing Assistant/Aide and Patient Care Assistant/Aide		
	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		
Dental Assistants	51.0601	Dental Assisting/Assistant	124010	Dental Assistant
	51.0710	Medical Office Assistant/Specialist	051420	Medical Office Technology
Medical Secretaries	51.0714	Medical Insurance Specialist/ Medical Biller		
	51.0716	Medical Administrative/Executive Assistant and Medical Secretary		
Home Health Aides	51.2602	Home Health Aide/Home Attendant	123080	Home Health Aide
Personal Care Aides	51.2602	Home Health Aide/Home Attendant	123080	Home Health Aide

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







Occupational Analysis: Retail Cluster

San Joaquin Valley Economic Sub-Market Fresno, Kern, Kings, Madera, and Tulare Counties April 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 Joaquin Valley Economic Sub-Market's^{**} new job growth plus replacement openings. In sum, these 10 occupations represent more than three-fourths of the 37,988 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.³⁴



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 <u>www.labormarketinfo.edd.ca.gov</u>.

- ³⁴ U.S. Department of Labor's Occupational Information Network (O*NET) at www.onetonline.org.
- ³⁵ 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.
- ³⁶ 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 Fresno, Kern, Kings, Madera, and Tulare Counties.

Top 10 Occupations and Recent Job Demand in the Retail Cluster

The table below further profiles the San Joaquin Valley 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 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 ³⁷ (2012-2022)	Median Hourly Wage (2014)	Median Annual Wage (2014)	Entry Level Education ³⁸	HWOL Job Ads ³⁹ (120 days)
Cashiers	10,693	\$9.73	\$20,248	Less than high school	338
Retail Salespersons	9,652	\$10.69	\$22,227	Less than high school	1,389
Stock Clerks and Order Fillers	3,114	\$10.87	\$22,624	Less than high school	520
First-Line Supervisors of Retail Sales Workers	2,489	\$18.30	\$38,055	High school diploma or equivalent	1,290
Combined Food Preparation and Serving Workers, Including Fast Food	1,078	\$9.25	\$19,243	Less than high school	488
Automotive Service Technicians and Mechanics	734	\$17.80	\$37,032	High school diploma or equivalent	405
Laborers and Freight, Stock,	689	\$11.18	\$23,248	Less than high school	498
Parts Salespersons	599	\$14.34	\$29,809	Less than high school	53
Pharmacy Technicians	477	\$17.73	\$36,869	High school diploma or equivalent	115
Packers and Packagers, Hand	474	\$9.47	\$19,693	Less than high school	48

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 April 15, 2015.

³⁷ Total job openings are the sum of new jobs and replacement job openings.

³⁸ U.S. Department of Labor, Bureau of Labor Statistics (BLS) 2012 education levels.

³⁹ 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 Fresno, Kern, Kings, Madera, and Tulare 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 Joaquin Valley 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 ⁴⁰ (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	401	\$42.65	\$88,719	283
Pharmacists	311	\$67.12	\$139,616	213
Sales Managers	209	\$40.97	\$85,207	342
Loan Officers	56	\$37.80	\$78,623	214
Accountants and Auditors	34	\$29.93	\$62,261	649
Requires Some College, Postsecondary N	on-Degree Awa	ard, or Associat	e's Degree	
Heavy and Tractor-Trailer Truck Drivers	57	\$18.25	\$37,956	3,612
First-Line Supervisors of Production and Operating Workers	57	\$26.55	\$55,238	691
Computer, Automated Teller, and Office Machine Repairers	37	\$21.10	\$43,897	7
Hairdressers, Hairstylists, and Cosmetologists	26	\$10.33	\$21,466	253
Heating, Air Conditioning, and Refrigeration Mechanics and Installers	25	\$20.64	\$42,927	237
Cashiers	10,693	\$9.73	\$20,248	338
Retail Salespersons	9,652	\$10.69	\$22,227	1,389
Stock Clerks and Order Fillers	3,114	\$10.87	\$22,624	520
First-Line Supervisors of Retail Sales Workers	2,489	\$18.30	\$38,055	1,290
Combined Food Preparation and Serving Workers, Including Fast Food	1,078	\$9.25	\$19,243	488

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 15, 2015.

⁴⁰ Total job openings are the sum of new jobs and replacement job openings.

^{**} This Economic Sub-Market includes Fresno, Kern, Kings, Madera, and Tulare 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 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	Coordination	Critical Thinking	Equipment Maintenance	Installation	Instructing	Judgment and Decision Making	Learning Strategies	Management of Personnel Resources	Mathematics	Monitoring	Negotiation	Operation and Control	Operation Monitoring	Persuasion	Quality Control Analysis	Reading Comprehension	Repairing	Science	Service Orientation	Social Perceptiveness	Speaking	Systems Analysis	Time Management	Troubleshooting	Writing
Requires a Bachelor's Degree or Higher	1	1	1								1																	
General and Operations Managers		•		•	•						•		•						•				•	•			'	•
Pharmacists	•	•			•			•					•						•		•		•	•			'	•
Sales Managers				•	•				•		•		•				•						•	•		•	_	•
Loan Officers	•	•	•		•				•			•							•			•		•				•
Accountants and Auditors ⁴¹	•	•			•				•			•	•						•					•	•			•
Requires Some College, Postsecondary N	lor	ז-ר)eć	gre	e .	A٧	a	d,	or	· A	ss	00	cia	te'	s [)e	gre	e										
Heavy and Tractor-Trailer Truck Drivers		•	•		•	•							•		•	•			•					•		•		
First-Line Supervisors of Production and Operating Workers		•		•	•						•		•						•				•	•		•		•
Computer, Automated Teller, and Office Machine Repairers	•	•			•								•		•	•			•	•				•			•	
Hairdressers, Hairstylists, and Cosmetologists	•	•			•			•		•			•				•					•	•	•				
Heating, Air Conditioning, and Refrigeration Mechanics and Installers ⁴²		•		•	•	•												•		•				•			•	
Cashiers		•		•	•								•						•			•		•		•	/	•
Retail Salespersons		•			•								•	•			•					•		•				•
Stock Clerks and Order Fillers ⁴³	•	•	•	•	•								•									•		•				
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) at www.onetonline.org.

⁴¹ Skills represent Accountants, a specialty occupation of Accountants and Auditors.

⁴² Skills represent Heating and Air Conditioning Mechanics and Installers, a specialty occupation of Heating, Air Conditioning, and Refrigeration Mechanics Installers.

⁴³ 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; communicating with supervisors, peers, or subordinates; and making decisions and solving problems.

														V	Vo	rk	A	cti	vi	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	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 Administrative Activities	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	gh	er							_																							
General and Operations Managers				•	•		•	•								•		•		•								•	•		•		Ш
Pharmacists	•	•						•	•				•				•			•		•		•									
Sales Managers			•	•	•		•	•			•					•				•								•		•			
Loan Officers				•				•		•						•				•		•		•	•			•					
Accountants and Auditors ⁴⁴	•				•			•	•	•						•				•	•			•									•
Requires Some College, Postseco	on	da	ry	N	or	I-D)eç	gre	e /	Aw	vai	rd,	0	r A	ss	00	cia	ite	's	D	eg	re	е										
Heavy and Tractor-Trailer Truck Drivers						•		•		•		•	•	•		•			•	•			•										
First-Line Supervisors of Production and Operating Workers			•		•	•	•	•			•	•													•			•	•				
Computer, Automated Teller, and Office Machine Repairers					•			•					•		•	•				•						•	•				•		•
Hairdressers, Hairstylists, and Cosmetologists		•		•				•		•		•										•			•						•		•
Heating, Air Conditioning, and Refrigeration Mechanics and Installers ⁴⁵	•					•						•		•		•				•			•			•	•						•
Requires a High School Diploma	or	E	qu	iv	ale	ent	o	r L	.es	s																							
Cashiers				•	•			•		•		•				•						•	•					•					
Retail Salespersons				•	•			•				•				•				•		•								•	•		•
Stock Clerks and Order Fillers ⁴⁶					•	•		•				•	•							•		•	•									•	•
First-Line Supervisors of Retail Sales Workers			•		•			•		•		•				•				•		•						•	•				
Combined Food Preparation and Serving Workers, Including Fast Food			•		•		•	•		•		•	•									•						•				•	

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

⁴⁴ Work Activities represent Accountants, a specialty occupation of Accountants and Auditors.

⁴⁵ Work Activities represent Heating and Air Conditioning Mechanics and Installers, a specialty occupation of Heating, Air Conditioning, and Refrigeration Mechanics Installers.

⁴⁶ 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 Hi	gher
General and Operations Managers	 Purchasing Managers Logistics Managers Lodging Managers
Pharmacists	 Health Specialties Teachers, Postsecondary Nursing Instructors and Teachers, Postsecondary Medical Scientists, Except Epidemiologists
Sales Managers	 Financial Managers, Branch or Department Advertising and Promotions Managers Public Relations and Fundraising Managers
Loan Officers	 Insurance Sales Agents Sales Agents, Financial Services Customs Brokers
Accountants and Auditors	 Financial Analysts Personal Financial Advisors Risk Management Specialists
Requires Some College, Postsecon	dary Non-Degree Award, or Associate's Degree
Heavy and Tractor-Trailer Truck Drivers	 Light Truck or Delivery Services Drivers Pile-Driver Operators Paving, Surfacing, and Tamping Equipment Operators
First-Line Supervisors of Production and Operating Workers	 First-Line Supervisors of Construction Trades and Extraction Workers First-Line Supervisors of Mechanics, Installers, and Repairers Non-Destructive Testing Specialists
Computer, Automated Teller, and Office Machine Repairers	 Computer User Support Specialists Audio and Video Equipment Technicians Electronic Home Entertainment Equipment Installers and Repairers
Hairdressers, Hairstylists, and Cosmetologists	 Skincare Specialists Dental Assistants Massage Therapists
Heating, Air Conditioning, and Refrigeration Mechanics and Installers	ElectriciansPlumbersMaintenance and Repair Workers, General
Requires a High School Diploma or	^r Equivalent or Less
Cashiers	 Hosts and Hostesses, Restaurant, Lounge, and Coffee Shop Counter and Rental Clerks Stock Clerks, Sales Floor
Retail Salespersons	 Hotel, Motel, and Resort Desk Clerks First-Line Supervisors of Retail Sales Workers Tellers
Stock Clerks and Order Fillers	 Waiters and Waitresses Dining Room and Cafeteria Attendants and Bartender Helpers Food Servers, Nonrestaurant
First-Line Supervisors of Retail Sales Workers	 First-Line Supervisors of Food Preparation and Serving Workers Bartenders Wholesale and Retail Buyers, Except Farm Products
Combined Food Preparation and Serving Workers, Including Fast Food	 Cooks, Fast Food Counter Attendants, Cafeteria, Food Concession, and Coffee Shop Amusement and Recreation Attendants

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

Employer Demand for the Retail Cluster

The following table lists the San Joaquin Valley Economic Sub-Market^{**} employers in the Retail cluster who posted the most job advertisements during the 120-day period ending April 15, 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 ⁴⁷ (120-day period)	Prior Year Job Advertisements (120-day period)	Numerical Change	Year-Over Percent Change (HWOL Job Advertisements)
Lowe's	149	141	8	5.7%
Macy's	134	56	78	139.3%
Home Depot	126	39	87	223.1%
Target Corporation	101	22	79	359.1%
Sears Holdings Corporation	87	242	-155	-64.0%
Dollar Tree Stores, Inc.	76	14	62	442.9%
Walmart	63	24	39	162.5%
Safeway Companies	49	2	47	2,350.0%
Love's Travel Stops	42	6	36	600.0%
Rite Aid	41	35	6	17.1%
Office Depot	40	14	26	185.7%
Lithia Motors, Inc.	37	3	34	1,133.3%
Toys"R"Us	37	59	-22	-37.3%
Car Max	34	21	13	61.9%
The Dollar General	33	87	-54	-62.1%
Dick's Sporting Goods, Inc.	28	40	-12	-30.0%
Harbor Freight Tools	23	3	20	666.7%
Pep Boys	22	8	14	175.0%
Nestle	20	28	-8	-28.6%
WinCo Foods	20	0	20	

Source: The Conference Board Help Wanted OnLine™ (HWOL) Data Series: Period ending April 15, 2015.

⁴⁷ Totals do not include employers with anonymous job advertisements.

^{**} This Economic Sub-Market includes Fresno, Kern, Kings, Madera, and Tulare Counties.

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	Classific	cation 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						
First-Line Supervisors of Production and Operating Workers	52.0205	Operations Management and Supervision	N/A	N/A						
Computer, Automated	47.0102	Business Machine Repair	093410	Computer Electronics						
Teller, and Office Machine Repairers	47.0104	Computer Installation and Repair Technology/Technician								
	12.0401	Cosmetology/Cosmetologist, General	300700	Cosmetology and Barbering						
Hairdressers, Hairstylists, and Cosmetologists	12.0404	Electrolysis/Electrology and Electrolysis Technician								
	12.0406	Make-Up Artist/Specialist								
Heating, Air Conditioning, and	15.0501	Heating, Ventilation, Air Conditioning and Refrigeration Engineering Technology/ Technician	094600	Environmental Control Technology						
Refrigeration Mechanics and Installers	47.0201	Heating, Air Conditioning, Ventilation and Refrigeration Maintenance Technology/ Technician								
	19.0203	Consumer Merchandising/ Retailing	050650	Retail Store Operations and Management						
First-Line Supervisors of Retail Sales Workers	52.0208	Management E-Commerce/ Electronic Commerce	050940	Sales and Salesmanship						
	52.0212	Retail Management	050970	E-Commerce (business emphasis)						

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

