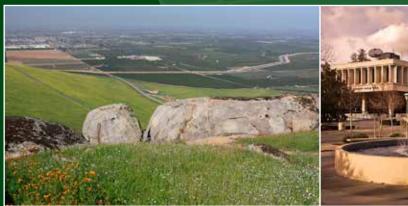


# Regional Economic Analysis Profile

San Joaquin Valley Economic Market
April 2015





Fresno, Kern, Kings, Madera, Merced, San Joaquin, Stanislaus, and Tulare Counties





The EDD is an equal opportunity employer/program. Auxiliary aids and services are available upon request to individuals with disabilities. Requests for services, aids, and/or alternate formats need to be made by calling (916) 262-2162 (voice). TTY users, please call the California Relay Service at 711.

This workforce product was funded by a grant awarded by the U.S. Department of Labor's Employment and Training Administration. The product was created by the recipient and does not necessarily reflect the official position of the U.S. Department of Labor. The Department of Labor makes no guarantees, warranties, or assurances of any kind, express or implied, with respect to such information, including any information on linked sites and including, but not limited to, accuracy of the information or its completeness, timeliness, usefulness, adequacy, continued availability, or ownership. This product is copyrighted by the institution that created it. Internal use by an organization and/or personal use by an individual for non-commercial purposes is permissible. All other uses require the prior authorization of the copyright owner.

## **TABLE OF CONTENTS**

Summary of the San Joaquin Valley Economic Market Industry Clusters	1
Industry Cluster Descriptions	2
Industry Cluster Definitions	4
Occupational Analysis: Agriculture, Food, and Beverage Processing Cluster	6
What is the Agriculture, Food, and Beverage Processing Cluster?	7
Top 10 Occupations in the Agriculture, Food, and Beverage Processing Cluster	7
Top 10 Occupations and Recent Job Demand in the Agriculture, Food, and Beverage Processing Cluster	8
Top Occupations for the Agriculture, Food, and Beverage Processing Cluster by Education Level	9
Skill Requirements in the Agriculture, Food, and Beverage Processing Cluster	10
Work Activities in the Agriculture, Food, and Beverage Processing Cluster	11
Related Occupations for the Agriculture, Food, and Beverage Processing Cluster	12
Employer Demand for the Agriculture, Food, and Beverage Processing Cluster	13
Instructional Programs for the Top Agriculture, Food, and Beverage Processing Cluster Occupations	14
Geographic Information Systems Maps: Percentage of Total County Establishments: Agriculture, Food, and Beverage Processing Cluster	15
Geographic Information Systems Maps: Percentage of Total County Employment: Agriculture, Food, and Beverage Processing Cluster	16
Occupational Analysis: Retail Cluster	17
What is the Retail Cluster?	18
Top 10 Occupations in the Retail Cluster	18
Top 10 Occupations and Recent Job Demand in the Retail Cluster	19
Top Occupations for the Retail Cluster by Education Level	20
Skill Requirements in the Retail Cluster	21
Work Activities in the Retail Cluster	22
Related Occupations for the Retail Cluster	23
Employer Demand for the Retail Cluster	24
Instructional Programs for the Top Retail Cluster Occupations	25

## **TABLE OF CONTENTS**

Retail Cluster
Geographic Information Systems Maps: Percentage of Total County Employment: Retail Cluster
Occupational Analysis: Health Care Services Cluster
What is the Health Care Services Cluster?
Top 10 Occupations in the Health Care Services Cluster29
Top 10 Occupations and Recent Job Demand in the Health Care Services Cluster
Top Occupations for the Health Care Services Cluster by Education Level
Skill Requirements in the Health Care Services Cluster
Work Activities in the Health Care Services Cluster
Related Occupations for the Health Care Services Cluster
Employer Demand for the Health Care Services Cluster
Instructional Programs for the Top Health Care Services Cluster Occupations
Geographic Information Systems Maps: Percentage of Total County Establishments:  Health Care Services Cluster
Geographic Information Systems Maps: Percentage of Total County Employment: Health Care Services Cluster

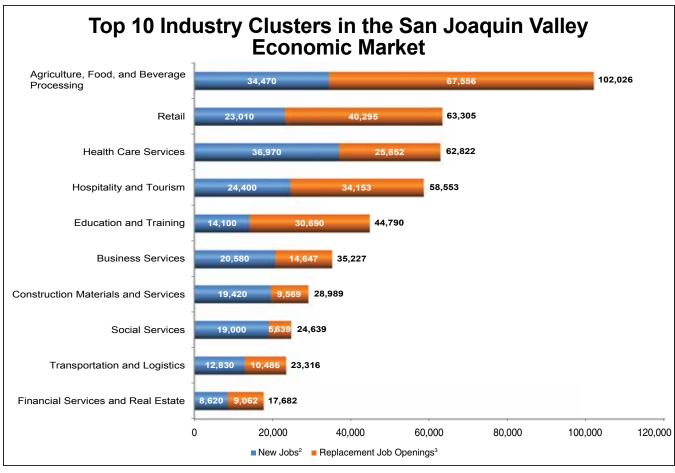
# SUMMARY OF THE SAN JOAQUIN VALLEY ECONOMIC MARKET INDUSTRY CLUSTERS

#### What is an Industry Cluster?

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

#### **Purpose of this Report**

The purpose of this report is to help align the state's workforce institutions and programs around the needs of economic market industry clusters. This report focuses on the future employment demand of economic market industry clusters and features them as primary investment opportunities for the California workforce development system. The goal of this report is to account for industry clusters with the largest number of projected total job openings<sup>1</sup> 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 <a href="https://www.labormarketinfo.edd.ca.gov">www.labormarketinfo.edd.ca.gov</a>.

<sup>&</sup>lt;sup>1</sup> Total job openings are the sum of new jobs and replacement job openings.

<sup>&</sup>lt;sup>2</sup> 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.

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

#### INDUSTRY CLUSTER DESCRIPTIONS

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

The 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. This cluster employed almost 269,000 people during 2013-2014,\* almost 21.7 percent of the economic market's workforce. Top industries in this cluster include:

- Support Activities for Crop Production
- · Fruit and Tree Nut Farming
- · Cattle Ranching and Farming
- · Other Food Manufacturing
- · Beverage Manufacturing

The **Retail** industry cluster includes grocery and department stores, dollar stores, retail pharmacies, and clothing specialty stores. During 2013-2014,\* this cluster employed almost 135,000 workers, or about 10.9 percent of the economic market's total employment. Industries projected to have the largest number of jobs include:

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

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 134,000 people in the economic market during 2013-2014,\* accounting for 10.8 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 **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 107,000 workers, or 8.6 percent of the economic market's employment. Industries within this cluster with the most projected job openings include:

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

The **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 Second Language (ESL) programs, test preparation and tutoring, or driving instruction. During 2013-2014,\* this cluster employed nearly 134,000 people in the economic market, accounting for 10.8 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

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

#### INDUSTRY CLUSTER DESCRIPTIONS

The **Business Services** industry cluster is comprised of industries that include temporary help agencies, employer organizations, janitorial services, security systems services, and carpet cleaning establishments. This cluster employed more than 71,000 people during 2013-2014,\* or 5.8 percent of the economic market's workforce. Top industries in this cluster include:

- Employment Services
- · Services to Buildings and Dwellings
- Management of Companies and Enterprises
- · Business Support Services
- Investigation and Security 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,\* this cluster was comprised of more than 55,000 workers, or 4.5 percent of the economic market's employment. Industries showing the highest projected job openings include:

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

The **Social Services** industry cluster is comprised of establishments and agencies (public and private) that provide non-residential services for the welfare of children, adults, the elderly, and disabled. Examples include nonmedical in-home care programs, day care centers, and community food banks. In total, the cluster employed more than 47,000 people and accounted for 3.8 percent of the economic market's workforce in 2013-2014,\* Industries include:

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

The **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,\* over 50,000 workers were employed in this cluster, making up 4 percent of the economic 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

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,\* this cluster was comprised of nearly 37,000 workers, or 3 percent of the economic market's employment. Industries showing the highest projected job openings include:

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

<sup>\*</sup> 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 Market.

Agricu	ture, Food, and Beverage Processing	Retail (	(Continued)
1111	Oilseed and Grain Farming	4532	Office Supplies, Stationery, and Gift Stores
1112	Vegetable and Melon Farming	4533	Used Merchandise Stores
1113	Fruit and Tree Nut Farming	4542	Vending Machine Operators
1114	Greenhouse, Nursery, and Floriculture Production		Care Services
1119	Other Crop Farming	6211	Offices of Physicians
1121	Cattle Ranching and Farming	6212	Offices of Dentists
1122	Hog and Pig Farming	6213	Offices of Other Health Practitioners
1123	Poultry and Egg Production	6214	Outpatient Care Centers
1124	Sheep and Goat Farming	6215	Medical and Diagnostic Laboratories
1125	Aquaculture	6216	Home Health Care Services
1129	Other Animal Production	6219	Other Ambulatory Health Care Services
1151	Support Activities for Crop Production	6221	General Medical and Surgical Hospitals
1152	Support Activities for Animal Production	6222	Psychiatric and Substance Abuse Hospitals
3111	Animal Food Manufacturing	6223	Specialty (except Psychiatric and Substance
3112	Grain and Oilseed Milling	0001	Abuse) Hospitals
3113	Sugar and Confectionery Product Manufacturing	6231	Nursing Care Facilities (Skilled Nursing Facilities)
3114	Fruit and Vegetable Preserving and Specialty	6232	Residential Intellectual and Developmental
0	Food Manufacturing		Disability, Mental Health, and Substance
3115	Dairy Product Manufacturing		Abuse Facilities
3116	Animal Slaughtering and Processing	6233	Continuing Care Retirement Communities
3117	Seafood Product Preparation and Packaging		and Assisted Living Facilities for the Elderly
3118	Bakeries and Tortilla Manufacturing	6239	Other Residential Care Facilities
0110			
3119	Other Food Manufacturing	Hospit	ality and Tourism
3119 3121	Other Food Manufacturing Beverage Manufacturing	Hospit	-
3119 3121 3122	Other Food Manufacturing Beverage Manufacturing Tobacco Manufacturing	4871	Scenic and Sightseeing Transportation, Land
3119 3121	Other Food Manufacturing Beverage Manufacturing Tobacco Manufacturing Pesticide, Fertilizer, and Other Agricultural	4871 4872	Scenic and Sightseeing Transportation, Land Scenic and Sightseeing Transportation, Water
3119 3121 3122 3253	Other Food Manufacturing Beverage Manufacturing Tobacco Manufacturing Pesticide, Fertilizer, and Other Agricultural Chemical Manufacturing	4871	Scenic and Sightseeing Transportation, Land Scenic and Sightseeing Transportation, Water Scenic and Sightseeing Transportation, Other
3119 3121 3122	Other Food Manufacturing Beverage Manufacturing Tobacco Manufacturing Pesticide, Fertilizer, and Other Agricultural	4871 4872 4879	Scenic and Sightseeing Transportation, Land Scenic and Sightseeing Transportation, Water
3119 3121 3122 3253 3261 <b>Retail</b>	Other Food Manufacturing Beverage Manufacturing Tobacco Manufacturing Pesticide, Fertilizer, and Other Agricultural Chemical Manufacturing Plastics Product Manufacturing	4871 4872 4879 5615	Scenic and Sightseeing Transportation, Land Scenic and Sightseeing Transportation, Water Scenic and Sightseeing Transportation, Other Travel Arrangement and Reservation Services Museums, Historical Sites, and Similar
3119 3121 3122 3253 3261 <b>Retail</b> 4411	Other Food Manufacturing Beverage Manufacturing Tobacco Manufacturing Pesticide, Fertilizer, and Other Agricultural Chemical Manufacturing Plastics Product Manufacturing Automobile Dealers	4871 4872 4879 5615 7121	Scenic and Sightseeing Transportation, Land Scenic and Sightseeing Transportation, Water Scenic and Sightseeing Transportation, Other Travel Arrangement and Reservation Services Museums, Historical Sites, and Similar Institutions
3119 3121 3122 3253 3261 <b>Retail</b> 4411 4412	Other Food Manufacturing Beverage Manufacturing Tobacco Manufacturing Pesticide, Fertilizer, and Other Agricultural Chemical Manufacturing Plastics Product Manufacturing  Automobile Dealers Other Motor Vehicle Dealers	4871 4872 4879 5615 7121 7131	Scenic and Sightseeing Transportation, Land Scenic and Sightseeing Transportation, Water Scenic and Sightseeing Transportation, Other Travel Arrangement and Reservation Services Museums, Historical Sites, and Similar Institutions Amusement Parks and Arcades
3119 3121 3122 3253 3261 <b>Retail</b> 4411 4412 4413	Other Food Manufacturing Beverage Manufacturing Tobacco Manufacturing Pesticide, Fertilizer, and Other Agricultural Chemical Manufacturing Plastics Product Manufacturing  Automobile Dealers Other Motor Vehicle Dealers Automotive Parts, Accessories, and Tire Stores	4871 4872 4879 5615 7121 7131 7132	Scenic and Sightseeing Transportation, Land Scenic and Sightseeing Transportation, Water Scenic and Sightseeing Transportation, Other Travel Arrangement and Reservation Services Museums, Historical Sites, and Similar Institutions Amusement Parks and Arcades Gambling Industries
3119 3121 3122 3253 3261 <b>Retail</b> 4411 4412 4413 4431	Other Food Manufacturing Beverage Manufacturing Tobacco Manufacturing Pesticide, Fertilizer, and Other Agricultural Chemical Manufacturing Plastics Product Manufacturing  Automobile Dealers Other Motor Vehicle Dealers Automotive Parts, Accessories, and Tire Stores Electronics and Appliance Stores	4871 4872 4879 5615 7121 7131 7132 7139	Scenic and Sightseeing Transportation, Land Scenic and Sightseeing Transportation, Water Scenic and Sightseeing Transportation, Other Travel Arrangement and Reservation Services Museums, Historical Sites, and Similar Institutions Amusement Parks and Arcades Gambling Industries Other Amusement and Recreation Industries
3119 3121 3122 3253 3261 <b>Retail</b> 4411 4412 4413 4431 4441	Other Food Manufacturing Beverage Manufacturing Tobacco Manufacturing Pesticide, Fertilizer, and Other Agricultural Chemical Manufacturing Plastics Product Manufacturing  Automobile Dealers Other Motor Vehicle Dealers Automotive Parts, Accessories, and Tire Stores Electronics and Appliance Stores Building Material and Supplies Dealers	4871 4872 4879 5615 7121 7131 7132 7139 7211	Scenic and Sightseeing Transportation, Land Scenic and Sightseeing Transportation, Water Scenic and Sightseeing Transportation, Other Travel Arrangement and Reservation Services Museums, Historical Sites, and Similar Institutions Amusement Parks and Arcades Gambling Industries Other Amusement and Recreation Industries Traveler Accommodation
3119 3121 3122 3253 3261 <b>Retail</b> 4411 4412 4413 4431 4441 4451	Other Food Manufacturing Beverage Manufacturing Tobacco Manufacturing Pesticide, Fertilizer, and Other Agricultural Chemical Manufacturing Plastics Product Manufacturing  Automobile Dealers Other Motor Vehicle Dealers Automotive Parts, Accessories, and Tire Stores Electronics and Appliance Stores Building Material and Supplies Dealers Grocery Stores	4871 4872 4879 5615 7121 7131 7132 7139 7211 7212 7213	Scenic and Sightseeing Transportation, Land Scenic and Sightseeing Transportation, Water Scenic and Sightseeing Transportation, Other Travel Arrangement and Reservation Services Museums, Historical Sites, and Similar Institutions Amusement Parks and Arcades Gambling Industries Other Amusement and Recreation Industries Traveler Accommodation RV (Recreational Vehicle) Parks and Recreational Camps Rooming and Boarding Houses
3119 3121 3122 3253 3261 <b>Retail</b> 4411 4412 4413 4431 4441 4451 4452	Other Food Manufacturing Beverage Manufacturing Tobacco Manufacturing Pesticide, Fertilizer, and Other Agricultural Chemical Manufacturing Plastics Product Manufacturing  Automobile Dealers Other Motor Vehicle Dealers Automotive Parts, Accessories, and Tire Stores Electronics and Appliance Stores Building Material and Supplies Dealers Grocery Stores Specialty Food Stores	4871 4872 4879 5615 7121 7131 7132 7139 7211 7212	Scenic and Sightseeing Transportation, Land Scenic and Sightseeing Transportation, Water Scenic and Sightseeing Transportation, Other Travel Arrangement and Reservation Services Museums, Historical Sites, and Similar Institutions Amusement Parks and Arcades Gambling Industries Other Amusement and Recreation Industries Traveler Accommodation RV (Recreational Vehicle) Parks and Recreational Camps Rooming and Boarding Houses Special Food Services
3119 3121 3122 3253 3261 <b>Retail</b> 4411 4412 4413 4431 4441 4451 4452 4453	Other Food Manufacturing Beverage Manufacturing Tobacco Manufacturing Pesticide, Fertilizer, and Other Agricultural Chemical Manufacturing Plastics Product Manufacturing  Automobile Dealers Other Motor Vehicle Dealers Automotive Parts, Accessories, and Tire Stores Electronics and Appliance Stores Building Material and Supplies Dealers Grocery Stores Specialty Food Stores Beer, Wine, and Liquor Stores	4871 4872 4879 5615 7121 7131 7132 7139 7211 7212 7213 7223 7224	Scenic and Sightseeing Transportation, Land Scenic and Sightseeing Transportation, Water Scenic and Sightseeing Transportation, Other Travel Arrangement and Reservation Services Museums, Historical Sites, and Similar Institutions Amusement Parks and Arcades Gambling Industries Other Amusement and Recreation Industries Traveler Accommodation RV (Recreational Vehicle) Parks and Recreational Camps Rooming and Boarding Houses Special Food Services Drinking Places (Alcoholic Beverages)
3119 3121 3122 3253 3261 <b>Retail</b> 4411 4412 4413 4431 4441 4451 4452 4453 4461	Other Food Manufacturing Beverage Manufacturing Tobacco Manufacturing Pesticide, Fertilizer, and Other Agricultural Chemical Manufacturing Plastics Product Manufacturing  Automobile Dealers Other Motor Vehicle Dealers Automotive Parts, Accessories, and Tire Stores Electronics and Appliance Stores Building Material and Supplies Dealers Grocery Stores Specialty Food Stores Beer, Wine, and Liquor Stores Health and Personal Care Stores	4871 4872 4879 5615 7121 7131 7132 7139 7211 7212 7213 7223	Scenic and Sightseeing Transportation, Land Scenic and Sightseeing Transportation, Water Scenic and Sightseeing Transportation, Other Travel Arrangement and Reservation Services Museums, Historical Sites, and Similar Institutions Amusement Parks and Arcades Gambling Industries Other Amusement and Recreation Industries Traveler Accommodation RV (Recreational Vehicle) Parks and Recreational Camps Rooming and Boarding Houses Special Food Services
3119 3121 3122 3253 3261 <b>Retail</b> 4411 4412 4413 4431 4441 4451 4452 4453 4461 4471	Other Food Manufacturing Beverage Manufacturing Tobacco Manufacturing Pesticide, Fertilizer, and Other Agricultural Chemical Manufacturing Plastics Product Manufacturing  Automobile Dealers Other Motor Vehicle Dealers Automotive Parts, Accessories, and Tire Stores Electronics and Appliance Stores Building Material and Supplies Dealers Grocery Stores Specialty Food Stores Beer, Wine, and Liquor Stores Health and Personal Care Stores Gasoline Stations	4871 4872 4879 5615 7121 7131 7132 7139 7211 7212 7213 7223 7224 7225	Scenic and Sightseeing Transportation, Land Scenic and Sightseeing Transportation, Water Scenic and Sightseeing Transportation, Other Travel Arrangement and Reservation Services Museums, Historical Sites, and Similar Institutions Amusement Parks and Arcades Gambling Industries Other Amusement and Recreation Industries Traveler Accommodation RV (Recreational Vehicle) Parks and Recreational Camps Rooming and Boarding Houses Special Food Services Drinking Places (Alcoholic Beverages) Restaurants and Other Eating Places
3119 3121 3122 3253 3261 <b>Retail</b> 4411 4412 4413 4431 4441 4451 4452 4453 4461 4471 4481	Other Food Manufacturing Beverage Manufacturing Tobacco Manufacturing Pesticide, Fertilizer, and Other Agricultural Chemical Manufacturing Plastics Product Manufacturing  Automobile Dealers Other Motor Vehicle Dealers Automotive Parts, Accessories, and Tire Stores Electronics and Appliance Stores Building Material and Supplies Dealers Grocery Stores Specialty Food Stores Beer, Wine, and Liquor Stores Health and Personal Care Stores	4871 4872 4879 5615 7121 7131 7132 7139 7211 7212 7213 7223 7224 7225 <b>Educat</b>	Scenic and Sightseeing Transportation, Land Scenic and Sightseeing Transportation, Water Scenic and Sightseeing Transportation, Other Travel Arrangement and Reservation Services Museums, Historical Sites, and Similar Institutions Amusement Parks and Arcades Gambling Industries Other Amusement and Recreation Industries Traveler Accommodation RV (Recreational Vehicle) Parks and Recreational Camps Rooming and Boarding Houses Special Food Services Drinking Places (Alcoholic Beverages) Restaurants and Other Eating Places tion and Training
3119 3121 3122 3253 3261 <b>Retail</b> 4411 4412 4413 4431 4441 4451 4452 4453 4461 4471	Other Food Manufacturing Beverage Manufacturing Tobacco Manufacturing Pesticide, Fertilizer, and Other Agricultural Chemical Manufacturing Plastics Product Manufacturing  Automobile Dealers Other Motor Vehicle Dealers Automotive Parts, Accessories, and Tire Stores Electronics and Appliance Stores Building Material and Supplies Dealers Grocery Stores Specialty Food Stores Beer, Wine, and Liquor Stores Health and Personal Care Stores Gasoline Stations Clothing Stores	4871 4872 4879 5615 7121 7131 7132 7139 7211 7212 7213 7223 7224 7225 <b>Educat</b> 6111	Scenic and Sightseeing Transportation, Land Scenic and Sightseeing Transportation, Water Scenic and Sightseeing Transportation, Other Travel Arrangement and Reservation Services Museums, Historical Sites, and Similar Institutions Amusement Parks and Arcades Gambling Industries Other Amusement and Recreation Industries Traveler Accommodation RV (Recreational Vehicle) Parks and Recreational Camps Rooming and Boarding Houses Special Food Services Drinking Places (Alcoholic Beverages) Restaurants and Other Eating Places tion and Training Elementary and Secondary Schools
3119 3121 3122 3253 3261 <b>Retail</b> 4411 4412 4413 4441 4451 4452 4453 4461 4471 4481 4482	Other Food Manufacturing Beverage Manufacturing Tobacco Manufacturing Pesticide, Fertilizer, and Other Agricultural Chemical Manufacturing Plastics Product Manufacturing  Automobile Dealers Other Motor Vehicle Dealers Automotive Parts, Accessories, and Tire Stores Electronics and Appliance Stores Building Material and Supplies Dealers Grocery Stores Specialty Food Stores Beer, Wine, and Liquor Stores Health and Personal Care Stores Gasoline Stations Clothing Stores Shoe Stores Jewelry, Luggage, and Leather Goods Stores Sporting Goods, Hobby, and Musical	4871 4872 4879 5615 7121 7131 7132 7139 7211 7212 7213 7223 7224 7225 <b>Educat</b> 6111 6112	Scenic and Sightseeing Transportation, Land Scenic and Sightseeing Transportation, Water Scenic and Sightseeing Transportation, Other Travel Arrangement and Reservation Services Museums, Historical Sites, and Similar Institutions Amusement Parks and Arcades Gambling Industries Other Amusement and Recreation Industries Traveler Accommodation RV (Recreational Vehicle) Parks and Recreational Camps Rooming and Boarding Houses Special Food Services Drinking Places (Alcoholic Beverages) Restaurants and Other Eating Places tion and Training Elementary and Secondary Schools Junior Colleges
3119 3121 3122 3253 3261 <b>Retail</b> 4411 4412 4413 4431 4441 4451 4452 4453 4461 4471 4481 4482 4483 4511	Other Food Manufacturing Beverage Manufacturing Tobacco Manufacturing Pesticide, Fertilizer, and Other Agricultural Chemical Manufacturing Plastics Product Manufacturing  Automobile Dealers Other Motor Vehicle Dealers Automotive Parts, Accessories, and Tire Stores Electronics and Appliance Stores Building Material and Supplies Dealers Grocery Stores Specialty Food Stores Beer, Wine, and Liquor Stores Health and Personal Care Stores Gasoline Stations Clothing Stores Shoe Stores Jewelry, Luggage, and Leather Goods Stores Sporting Goods, Hobby, and Musical Instrument Stores	4871 4872 4879 5615 7121 7131 7132 7139 7211 7212 7213 7223 7224 7225 <b>Educat</b> 6111	Scenic and Sightseeing Transportation, Land Scenic and Sightseeing Transportation, Water Scenic and Sightseeing Transportation, Other Travel Arrangement and Reservation Services Museums, Historical Sites, and Similar Institutions Amusement Parks and Arcades Gambling Industries Other Amusement and Recreation Industries Traveler Accommodation RV (Recreational Vehicle) Parks and Recreational Camps Rooming and Boarding Houses Special Food Services Drinking Places (Alcoholic Beverages) Restaurants and Other Eating Places tion and Training Elementary and Secondary Schools Junior Colleges Colleges, Universities, and Professional
3119 3121 3122 3253 3261 <b>Retail</b> 4411 4412 4413 4431 4441 4451 4452 4453 4461 4471 4481 4482 4483	Other Food Manufacturing Beverage Manufacturing Tobacco Manufacturing Pesticide, Fertilizer, and Other Agricultural Chemical Manufacturing Plastics Product Manufacturing  Automobile Dealers Other Motor Vehicle Dealers Automotive Parts, Accessories, and Tire Stores Electronics and Appliance Stores Building Material and Supplies Dealers Grocery Stores Specialty Food Stores Beer, Wine, and Liquor Stores Health and Personal Care Stores Gasoline Stations Clothing Stores Shoe Stores Jewelry, Luggage, and Leather Goods Stores Sporting Goods, Hobby, and Musical	4871 4872 4879 5615 7121 7131 7132 7139 7211 7212 7213 7223 7224 7225 <b>Educat</b> 6111 6112	Scenic and Sightseeing Transportation, Land Scenic and Sightseeing Transportation, Water Scenic and Sightseeing Transportation, Other Travel Arrangement and Reservation Services Museums, Historical Sites, and Similar Institutions Amusement Parks and Arcades Gambling Industries Other Amusement and Recreation Industries Traveler Accommodation RV (Recreational Vehicle) Parks and Recreational Camps Rooming and Boarding Houses Special Food Services Drinking Places (Alcoholic Beverages) Restaurants and Other Eating Places tion and Training Elementary and Secondary Schools Junior Colleges

### **INDUSTRY CLUSTER DEFINITIONS**

Educat	ion and Training (Continued)	Transp	ortation and Logistics
6115	Technical and Trade Schools	3365	Railroad Rolling Stock Manufacturing
6116	Other Schools and Instruction	3366	Ship and Boat Building
6117	Educational Support Services	4811	Scheduled Air Transportation
		4812	Nonscheduled Air Transportation
Busine	ss Services	4821	Rail Transportation
5511	Management of Companies and Enterprises	4831	Deep Sea, Coastal, and Great Lakes Water
5611	Office Administrative Services	1001	Transportation
5612	Facilities Support Services	4832	Inland Water Transportation
5613	Employment Services	4841	General Freight Trucking
5614	Business Support Services	4842	Specialized Freight Trucking
5419	Other Professional, Scientific, and Technical	4851	Urban Transit Systems
5616	Investigation and Security Services	4852	Interurban and Rural Bus Transportation
5617	Services to Buildings and Dwellings	4853	Taxi and Limousine Service
5619	Other Support Services	4854	School and Employee Bus Transportation
5621	Waste Collection	4855	Charter Bus Industry
5622	Waste Treatment and Disposal	4859	Other Transit and Ground Passenger
5629	Remediation and Other Waste Management Services		Transportation
		4881	Support Activities for Air Transportation
Constr	uction Materials and Services	4882	Support Activities for Rail Transportation
2123	Nonmetallic Mineral Mining and Quarrying	4883	Support Activities for Water Transportation
2213	Water, Sewage and Other Systems	4884	Support Activities for Road Transportation
2361	Residential Building Construction	4885	Freight Transportation Arrangement
2362	Nonresidential Building Construction	4889	Other Support Activities for Transportation
2372	Land Subdivision	4921	Couriers and Express Delivery Services
2373	Highway, Street, and Bridge Construction	4922	Local Messengers and Local Delivery
2379	Other Heavy and Civil Engineering	4931	Warehousing and Storage
	Construction	5321	Automotive Equipment Rental and Leasing
2381	Foundation, Structure, and Building Exterior	8113	Commercial and Industrial Machinery and
	Contractors		Equipment (except Automotive and
2382	Building Equipment Contractors		Electronic) Repair and Maintenance
2383	Building Finishing Contractors	Financ	ial Services and Real Estate
2389	Other Specialty Trade Contractors	5211	Monotory Authorities Control Bank
3211	Sawmills and Wood Preservation	5211	Monetary Authorities-Central Bank Depository Credit Intermediation
3271	Clay Product and Refractory Manufacturing	5222	
3272	Glass and Glass Product Manufacturing	5223	Nondepository Credit Intermediation Activities Related to Credit Intermediation
3273	Cement and Concrete Product Manufacturing	5223	Securities and Commodity Contracts
3274	Lime and Gypsum Product Manufacturing	3231	
3279	Other Nonmetallic Mineral Product	5232	Intermediation and Brokerage
	Manufacturing		Securities and Commodity Exchanges
3339	Other General Purpose Machinery	5239	Other Financial Investment Activities
	Manufacturing	5241	Insurance Carriers
3351	Electric Lighting Equipment Manufacturing	5242	Agencies, Brokerages, and Other Insurance Related Activities
Social	Services	5251	Insurance and Employee Benefit Funds
6241	Individual and Family Services	5259	Other Investment Pools and Funds
6242	Community Food and Housing, and	5311	Lessors of Real Estate
	Emergency and Other Relief Services	5312	Offices of Real Estate Agents and Brokers
6243	Vocational Rehabilitation Services	5313	Activities Related to Real Estate
6244	Child Day Care Services		



# Occupational Analysis: Agriculture, Food, and Beverage Processing Cluster

San Joaquin Valley Economic Market
April 2015

Fresno, Kern, Kings, Madera, Merced, San Joaquin, Stanislaus, and Tulare Counties



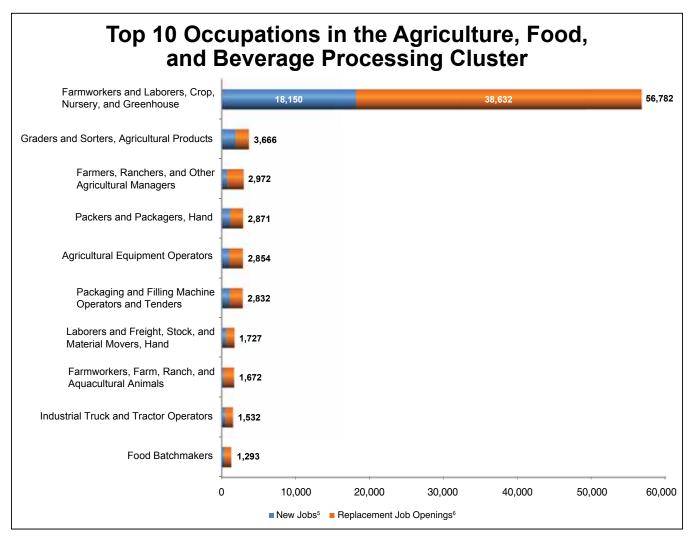


#### What is the Agriculture, Food, and Beverage Processing Cluster?

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 Market's new job growth plus replacement openings. In sum, these 10 occupations represent more than three-quarters of the 102,026 total job openings projected in this cluster between 2012 and 2022. Moreover, many share the same required skills such as coordination, active listening, critical thinking, and monitoring.<sup>4</sup>



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 <a href="https://www.labormarketinfo.edd.ca.gov">www.labormarketinfo.edd.ca.gov</a>.

<sup>&</sup>lt;sup>4</sup> U.S. Department of Labor's Occupational Information Network (O\*NET) at www.onetonline.org.

<sup>&</sup>lt;sup>5</sup> 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.

<sup>&</sup>lt;sup>6</sup> 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 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 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 <sup>7</sup> (2012-2022)	Median Hourly Wage (2014)	Median Annual Wage (2014)	Entry Level Education <sup>8</sup>	HWOL Job Ads <sup>9</sup> (120 days)
Farmworkers and Laborers, Crop, Nursery, and Greenhouse	56,782	\$9.14	\$19,007	Less than high school	109
Graders and Sorters, Agricultural Products	3,666	\$9.17	\$19,067	Less than high school	9
Farmers, Ranchers, and Other Agricultural Managers	2,972	\$43.44	\$90,360	High school diploma or equivalent	86
Packers and Packagers, Hand	2,871	\$9.58	\$19,918	Less than high school	71
Agricultural Equipment Operators	2,854	\$10.33	\$21,489	Less than high school	44
Packaging and Filling Machine Operators and Tenders	2,832	\$14.13	\$29,388	High school diploma or equivalent	79
Laborers and Freight, Stock, and Material Movers, Hand	1,727	\$11.71	\$24,354	Less than high school	929
Farmworkers, Farm, Ranch, and Aquacultural Animals	1,672	\$11.76	\$24,465	Less than high school	140
Industrial Truck and Tractor Operators	1,532	\$14.71	\$30,615	Less than high school	606
Food Batchmakers	1,293	\$14.84	\$30,858	High school diploma or equivalent	17

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 22, 2015.

<sup>&</sup>lt;sup>7</sup> Total job openings are the sum of new jobs and replacement job openings.

<sup>&</sup>lt;sup>8</sup> U.S. Department of Labor, Bureau of Labor Statistics (BLS) 2012 education levels.

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

## Top Occupations for the 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 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 <sup>10</sup> (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	464	\$42.57	\$88,551	507
Accountants and Auditors	327	\$30.15	\$62,712	988
Industrial Production Managers	310	\$40.25	\$83,713	108
Food Scientists and Technologists	176	\$28.35	\$58,983	34
Financial Managers	141	\$45.97	\$95,634	437
Requires Some College, Postsecondary No	on-Degree Awar	d, or Associate	's Degree	
Heavy and Tractor-Trailer Truck Drivers	729	\$18.87	\$39,256	7,752
First-Line Supervisors of Production and Operating Workers	601	\$26.65	\$55,427	1,239
Agricultural and Food Science Technicians	294	\$16.98	\$35,320	47
Electrical and Electronics Repairers, Commercial and Industrial Equipment	48	\$28.57	\$59,423	28
Computer User Support Specialists	29	\$24.02	\$49,946	1,017
Requires a High School Diploma or Equiva	lent or Less			
Farmworkers and Laborers, Crop, Nursery, and Greenhouse	56,782	\$9.14	\$19,007	109
Graders and Sorters, Agricultural Products	3,666	\$9.17	\$19,067	9
Farmers, Ranchers, and Other Agricultural Managers	2,972	\$43.44	\$90,360	86
Packers and Packagers, Hand	2,871	\$9.58	\$19,918	71
Agricultural Equipment Operators	2,854	\$10.33	\$21,489	44

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 22, 2015.

<sup>&</sup>lt;sup>10</sup> 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. Critical thinking and active listening are the most commonly shared skills, followed by monitoring, speaking, 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).

														ki	lls											
Occupations	Active Learning	Active Listening	Complex Problem Solving	Coordination	Critical Thinking	Equipment Maintenance	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
Requires a Bachelor's Degree or Higher																										
General and Operations Managers	•	•		•	•					•		•						•				•	•			•
Accountants and Auditors <sup>11</sup>	•	•			•			•			•	•						•					•	•		_ (
Industrial Production Managers	•	•		•	•			•		•		•						•					•		•	
Food Scientists and Technologists	•	•	•	•	•			•				•						•					•			•
Financial Managers <sup>12</sup>	•	•			•				•			•				•		•				•	•			
Requires Some College, Postsecondary	No	n-	De	gr	ee	Αv	vai	d,	or	A	SS	oc	iat	e's	D	eg	ree	)								
Heavy and Tractor-Trailer Truck Drivers		•	•		•	•						•		•	•			•					•		•	
First-Line Supervisors of Production and Operating Workers		•		•	•					•		•						•				•	•		•	•
Agricultural and Food Science Technicians <sup>13</sup>	•	•			•		•				•	•						•		•			•			
Electrical and Electronics Repairers, Commercial and Industrial Equipment		•	•		•	•								•	•		•	•	•							•
Computer User Support Specialists	•	•		•	•		•					•						•			•		•			•
Compater Coor Capport Openianoto																										
Requires a High School Diploma or Equi	val	ler	nt c	r I	Les	SS																				
	val	er •	nt c	or I	Les •	•	•			•		•		•	•				•							
Requires a High School Diploma or Equirements and Laborers, Crop, Nursery,	val	er •		•	-es	•	•	•		•		•		•	•	•			•			•	•		•	
Requires a High School Diploma or Equirements and Laborers, Crop, Nursery, and Greenhouse <sup>14</sup>	val	•		•	•	•	•	•		•	•		•	•	•	•		•	•			•	•		•	
Requires a High School Diploma or Equirements and Laborers, Crop, Nursery, and Greenhouse <sup>14</sup> Graders and Sorters, Agricultural Products Farmers, Ranchers, and Other Agricultural	val	•		•	•	•	•			•	•	•	•	•	•	•	•	•	•			•	•		•	

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

<sup>&</sup>lt;sup>11</sup> Skills represent Accountants, a specialty occupation of Accountants and Auditors.

<sup>12</sup> Skills represent Financial Managers, Branch or Department, a specialty occupation of Financial Managers.

<sup>13</sup> Skills represent Food Science Technicians, a specialty occupation of Agricultural and Food Science Technicians.

<sup>14</sup> Skills represent Farmworkers and Laborers, Crop, a specialty occupation of Farmworkers and Laborers, Crop, Nursery, and Greenhouse.

<sup>15</sup> Skills represent Farm and Ranch 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; establishing and maintaining interpersonal relationships; making decisions and solving problems; and communicating with supervisors, peers, or subordinates.

													\	No	rk	Α	ct	ivi	tie	25												
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	Developing Objectives and Strategies	Documenting/Recording Information	Establishing and Maintaining Interpersonal Relationships	Evaluating Information to Determine Compliance with Standards	Getting Information	Guiding, Directing, and Motivating Subordinates	Handling and Moving Objects	Identifying Objects, Actions, and Events	Inspecting Equipment, Structures, or Material	Interacting With Computers	Making Decisions and Solving Problems	Monitor Processes, Materials, or Surroundings		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 High	nei																															
General and Operations Managers			•	•		•			•								•		•		•							•	•	•		٦
Accountants and Auditors <sup>16</sup>	•			•					•	•	•						•				•	•		•								•
Industrial Production Managers				•		•		İ	•	Ì		•		Ì			•	•	•	Ì	•							•	•			
Food Scientists and Technologists	•					•					•			•		ĺ	•	•			•			•						•		•
Financial Managers <sup>17</sup>		•		•		•			•			•				•	•				•							•				•
Requires Some College, Postseconda	ary	/ N	or	1-E	)e	gre	ee	A	wa	ard	l, c	or	A٤	SS	oci	iat	e'	s [	Эе	gr	ee											
Heavy and Tractor-Trailer Truck Drivers					•				•		•		•	•	•		•			•	•		•									
First-Line Supervisors of Production and Operating Workers		•		•	•	•			•			•	•												•			•	•			
Agricultural and Food Science Technicians <sup>18</sup>	•			•					•	•			•	•			•				•			•								•
Electrical and Electronics Repairers, Commercial and Industrial Equipment				•				•	•				•				•	•			•					•	•					•
Computer User Support Specialists				•					•		•			•		•	•				•			•						•		•
Requires a High School Diploma or E	qι	ıiv	ale	eni	t o	r L	_e:	ss															_									
Farmworkers and Laborers, Crop, Nursery, and Greenhouse <sup>19</sup>					•				•		•	•	•	•						•			•								•	•
Graders and Sorters, Agricultural Products				•	•	•			•		•		•		•						•		•									•
Farmers, Ranchers, and Other Agricultural Managers <sup>20</sup>							•				•		•				•		•	•	•		•							•		•
Packers and Packagers, Hand				•	•				•		•		•	•				•			•		•					•				
Agricultural Equipment Operators					•						•		•		•		•	•		•	•		•				•					

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

<sup>&</sup>lt;sup>16</sup> Work Activities listed represent Accountants, a specialty occupation of Accountants and Auditors.

<sup>&</sup>lt;sup>17</sup> Work Activities listed represent Financial Managers, Branch or Department, a specialty occupation of Financial Managers.

<sup>18</sup> Work Activities listed represent Food Science Technicians, a specialty occupation of Agricultural and Food Science Technicians.

<sup>19</sup> Work Activities listed represent Farmworkers and Laborers, Crop, a specialty occupation of Farmworkers and Laborers, Crop, Nursery and Greenhouse.

<sup>&</sup>lt;sup>20</sup> Work Activities listed represent Farm and Ranch 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 or High	ner
General and Operations Managers	<ul> <li>Administrative Services Managers</li> <li>First-Line Supervisors of Office and Administrative Support Workers</li> <li>Logistics Managers</li> </ul>
Accountants and Auditors	<ul><li>Auditors</li><li>Budget Analysts</li><li>Financial Analysts</li></ul>
Industrial Production Managers	<ul> <li>First-Line Supervisors of Production and Operating Workers</li> <li>Food Service Managers</li> <li>General and Operations Managers</li> </ul>
Food Scientists and Technologists	<ul><li>Agricultural Engineers</li><li>Biochemical Engineers</li><li>Validation Engineers</li></ul>
Financial Managers	<ul><li>Marketing Managers</li><li>Public Relations and Fundraising Managers</li><li>Sales Agents, Financial Services</li></ul>
Requires Some College, Postseconda	ry Non-Degree Award, or Associate's Degree
Heavy and Tractor-Trailer Truck Drivers	<ul> <li>Excavating and Loading Machine and Dragline Operators</li> <li>Highway Maintenance Workers</li> <li>Paving, Surfacing, and Tamping Equipment Operators</li> </ul>
First-Line Supervisors of Production and Operating Workers	<ul><li>Aircraft Cargo Handling Supervisors</li><li>Industrial Production Managers</li><li>Non-Destructive Testing Specialists</li></ul>
Agricultural and Food Science Technicians	<ul><li>Agricultural Inspectors</li><li>Biological Technicians</li><li>Chemical Technicians</li></ul>
Electrical and Electronics Repairers, Commercial and Industrial Equipment	<ul><li>Industrial Machinery Mechanics</li><li>Manufacturing Production Technicians</li><li>Robotics Technicians</li></ul>
Computer User Support Specialists	<ul><li>Audio and Video Equipment Technicians</li><li>Broadcast Technicians</li><li>Computer Operators</li></ul>
Requires a High School Diploma or E	quivalent or Less
Farmworkers and Laborers, Crop, Nursery, and Greenhouse	<ul> <li>Helpers-Painters, Paperhangers, Plasterers, and Stucco Masons</li> <li>Janitors and Cleaners, Except Maids and Housekeeping Cleaners</li> <li>Landscaping and Groundskeeping Workers</li> </ul>
Graders and Sorters, Agricultural Products	<ul><li>Dishwashers</li><li>Food Preparation Workers</li><li>Stock Clerks-Stockroom, Warehouse, or Storage Yard</li></ul>
Farmers, Ranchers, and Other Agricultural Managers	<ul><li>Aquacultural Managers</li><li>Forest and Conservation Workers</li><li>Industrial Production Managers</li></ul>
Packers and Packagers, Hand	<ul> <li>Cooks, Fast Food</li> <li>Cooks, Restaurant</li> <li>Inspectors, Testers, Sorters, Samplers, and Weighers</li> </ul>
Agricultural Equipment Operators	<ul><li>Dredge Operators</li><li>Pile-Driver Operators</li><li>Riggers</li></ul>

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 Market employers in the Agriculture, Food, and Beverage Processing cluster who posted the most job advertisements during the 120-day period ending April 22, 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 <sup>21</sup> (120-day period)	Prior Year Job Advertisements (120-day period)	Numerical Change	Year-Over Percent Change (HWOL Job Advertisements)
Paramount Citrus	66	74	-8	-10.8%
Foster Farms	59	98	-39	-39.8%
Constellation Brands, Inc.	54	17	37	217.6%
E. & J. Gallo Winery	53	151	-98	-64.9%
Paramount Farms	46	4	42	1,050.0%
Dole Packaged Food, LLC	45	29	16	55.2%
Delicato Family Vineyards	33	38	-5	-13.2%
Coca-Cola Refreshments	31	40	-9	-22.5%
Land O' Lakes	29	29	0	0.0%
Diamond Foods	28	15	13	86.7%
Pepsico	28	26	2	7.7%
Bimbo Bakeries	24	10	14	140.0%
Grimmway Farms	24	35	-11	-31.4%
Kraft	20	14	6	42.9%
Neil Jones Food Company	19	19	0	0.0%
The Wine Group	18	47	-29	-61.7%
Nestle	16	22	-6	-27.3%
Joseph Gallo Farms	15	16	-1	-6.3%
American Bread Co dba Panera Bread	14	1	13	1,300.0%
ConAgra	14	8	6	75.0%

Source: The Conference Board Help Wanted OnLine™ (HWOL) Data Series: Period ending April 22, 2015.

<sup>&</sup>lt;sup>21</sup> Totals do not include employers with anonymous job advertisements.

# Instructional Programs for the Top 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	Classi	fication of Instructional Program (CIP)	Taxono	omy of Programs (TOP)
	CIP Code	CIP Title	TOP Code	TOP Title
Agricultural and Food Science Technicians	01.1002	Food Technology and Processing	011300	Food Processing and Related Technologies
Agricultural Equipment Operators	01.0204	Agricultural Power Machinery Operation	N/A	N/A
	01.0106	Agricultural Business Technology	070820	Computer Support
Computer User Support Specialists	11.1006	Computer Support Specialist		
Specialists	51.0709	Medical Office Computer Specialist/ Assistant		
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	010200	Animal Science
and Other Agricultural Managers	01.0104	Farm/Farm and Ranch Management	010300	Plant Science
	01.1106	Range Science and Management	010900	Horticulture
First-Line Supervisors of Production and Operating Workers	52.0205	Operations Management and Supervision	N/A	N/A
Graders and Sorters, Agricultural Products	01.0105	Agricultural/Farm Supplies Retailing and Wholesaling	N/A	N/A
Heavy and Tractor-Trailer Truck Drivers	49.0205	Truck and Bus Driver/Commercial Vehicle Operator and Instructor	094750	Truck and Bus Driving

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 Agriculture, Food, and Beverage Processing Cluster Percentage of Total County Establishments, 2013 **Percentage of Business Establishments** in the Agriculture, Food, and **Beverage Processing Cluster** 0.0% - 2.0% 2.1% - 5.0% **NoRTEC** (Northern Rural Training 5.1% - 10.0% And Employment Consortium) Humboldt 10.1% - 20.0% County 20.1% - 39.0% Workforce Investment Board Areas Mendocino County Statewide: 1.7% (North Central Note: Some counties contain smaller WIB Areas. Counties Napa-Consortium Lake Alameda County includes: Golden Sierra Oakland City WIB Consortium County Sonoma Contra Costa County includes: Sacramento County Richmond WORKS Employment & Training (SETA) Soland Santa Clara County includes: County North Valley Consortium (NOVA) San Marin Mother Lode Contra Costa Joaquin County Consortium Los Angeles County includes: County County Foothill Consortium San Francisco Alameda Los Angeles City WIB Stanislaus County Pacific Gateway Workforce Investment Network County Southeast Los Ángeles County Consortium (SELACO) San Mateo Merced San Jose South Bay Consortium County County Silicon Verdugo Consortium Madera Valley Santa Cruz Orange County includes: County County Anaheim WIB Fresno County Santa Ana WIB Benito County Monterey **Tulare County** San Luis Kern, Inyo, Mono Consortium 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 Cartography by: State of California Labor Market Information Division

LaborMarketinfo

July 2014

http://www.labormarketinfo.edd.ca.gov

California Employment Development Department

#### Percentage of Total County Employment, 2013 Percentage of Employment in the Agriculture, Food, and **Beverage Processing Cluster** 0.0% - 5.0% 5.1% - 10.0% **NoRTEC** (Northern Rural Training 10.1% - 15.0% And Employment Consortium) Humboldt 15.1% - 25.0% County 25.1% - 41.3% Workforce Investment Board Areas Mendocino NCCC County Statewide: 4.7% (North Central Counties Note: Some counties contain smaller WIB Areas. Consortium) Napa Alameda County includes: Golden Sierra Oakland City WIB Yolo County Contra Costa County includes: Sacramento County Richmond WORKS Employment & Training (SETA) Soland Santa Clara County includes: County North Valley Consortium (NOVA) San Marin Mother Lode Contra Costa County Consortium Los Angeles County includes: County Foothill Consortium San Francisco Alameda Los Angeles City WIB Stanislaus County Pacific Gateway Workforce Investment Network County Southeast Los Ángeles County Consortium (SELACO) San Mateo Merced San Jose South Bay Consortium County County Silicon Verdugo Consortium Madera Valley Santa Cruz Orange County includes: County County Anaheim WIB Fresno County Santa Ana WIB Benito County Monterev **Tulare County** County County San Luis Obispo Kern, Inyo, Mono Consortium 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 Agriculture, Food, and Beverage Processing Cluster



# Occupational Analysis: Retail Cluster

San Joaquin Valley Economic Market
April 2015

Fresno, Kern, Kings, Madera, Merced, San Joaquin, Stanislaus, and Tulare Counties





#### What is the Retail Cluster?

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

#### **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 Market's new job growth plus replacement openings. In sum, these 10 occupations represent more than three-quarters of the 63,305 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.<sup>22</sup>



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 <a href="https://www.labormarketinfo.edd.ca.gov">www.labormarketinfo.edd.ca.gov</a>.

<sup>&</sup>lt;sup>22</sup> U.S. Department of Labor's Occupational Information Network (O\*NET) at www.onetonline.org.

<sup>&</sup>lt;sup>23</sup> 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.

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

#### Top 10 Occupations and Recent Job Demand in the Retail Cluster

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

Occupations	Total Job Openings <sup>25</sup> (2012-2022)	Median Hourly Wage (2014)	Median Annual Wage (2014)	Entry Level Education <sup>26</sup>	HWOL Job Ads <sup>27</sup> (120 days)
Cashiers	16,792	\$9.77	\$20,323	Less than high school	649
Retail Salespersons	16,662	\$10.58	\$21,991	Less than high school	2,463
Stock Clerks and Order Fillers	5,098	\$11.21	\$23,314	Less than high school	933
First-Line Supervisors of Retail Sales Workers	4,090	\$18.40	\$38,272	High school diploma or equivalent	2,130
Combined Food Preparation and Serving Workers, Including Fast Food	1,817	\$9.30	\$19,333	Less than high school	819
Laborers and Freight, Stock, and Material Movers, Hand	1,333	\$11.71	\$24,354	Less than high school	929
Automotive Service Technicians and Mechanics	1,257	\$17.91	\$37,270	High school diploma or equivalent	878
Parts Salespersons	1,029	\$14.04	\$29,213	Less than high school	114
Butchers and Meat Cutters	769	\$13.01	\$27,061	Less than high school	18
Packers and Packagers, Hand	742	\$9.58	\$19,918	Less than high school	71

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 22, 2015.

<sup>&</sup>lt;sup>25</sup> Total job openings are the sum of new jobs and replacement job openings.

<sup>&</sup>lt;sup>26</sup> U.S. Department of Labor, Bureau of Labor Statistics (BLS) 2012 education levels.

<sup>&</sup>lt;sup>27</sup> Totals represent job advertisements from employers in all industries. One job opening may be represented in more than one job advertisement.

#### Top Occupations for the Retail Cluster by Education Level

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

Occupations	Total Job Openings <sup>28</sup> (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	684	\$42.57	\$88,551	507
Pharmacists	537	\$67.15	\$139,678	349
Sales Managers	403	\$39.75	\$82,687	520
Loan Officers	88	\$36.34	\$75,571	449
Accountants and Auditors	56	\$30.15	\$62,712	988
Requires Some College, Postsecondary Non-	Degree Award	, or Associate	s Degree	
First-Line Supervisors of	94	\$26.65	\$55,427	1,239
Heavy and Tractor-Trailer Truck	88	\$18.87	\$39,256	7,752
Computer, Automated Teller, and Office Machine Repairers	64	\$19.37	\$40,282	20
Hairdressers, Hairstylists, and Cosmetologists	54	\$10.06	\$20,913	524
Heating, Air Conditioning, and Refrigeration Mechanics and Installers	35	\$21.51	\$44,747	500
Requires a High School Diploma or Equivaler	nt or Less			
Cashiers	16,792	\$9.77	\$20,323	649
Retail Salespersons	16,662	\$10.58	\$21,991	2,463
Stock Clerks and Order Fillers	5,098	\$11.21	\$23,314	933
First-Line Supervisors of Retail	4,090	\$18.40	\$38,272	2,130
Combined Food Preparation and Serving Workers, Including Fast Food	1,817	\$9.30	\$19,333	819

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 22, 2015.

<sup>&</sup>lt;sup>28</sup> Total job openings are the sum of new jobs and replacement job openings.

#### Skill Requirements in the Retail Cluster

The table below lists the 10 top skills required for top occupations in the Retail cluster, categorized by entry-level education requirements. Critical thinking and speaking are the most commonly shared skills, followed by active listening 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).

	Skills																											
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	•																											
General and Operations Managers	•	•		•	•						•		•						•				•	•	Ш	$\square$	$\dashv$	•
Pharmacists	•	•			•			•					•						•		•		•	•			$\Box$	•
Sales Managers				•	•				•		•		•				•						•	•		•	$\perp$	•
Loan Officers	•	•	•		•				•	Ш		•							•			•		•	Ш	Ш	$\perp$	•
Accountants and Auditors <sup>29</sup>	•	•			•				•			•	•						•					•	•			•
Requires Some College, Postsecondary	N	on	ı-D	)eg	jre	e /	Αw	ar	d, c	or A	As	so	cia	ate	's	De	gr	ee									Ļ	
First-Line Supervisors of Production and Operating Workers		•		•	•						•		•						•				•	•		•		•
Heavy and Tractor-Trailer Truck Drivers		•	•		•	•							•		•	•			•					•		•		
Computer, Automated Teller, and Office Machine Repairers	•	•			•								•		•	•			•	•				•			•	
Hairdressers, Hairstylists, and Cosmetologists	•	•			•			•		•			•				•					•	•	•				
Heating, Air Conditioning, and Refrigeration Mechanics and Installers <sup>30</sup>		•		•	•	•	•											•	•	•				•			•	
Requires a High School Diploma or Equ	ıiv	ale	n	01	r L	.es	s																					
Cashiers		•		•	•								•						•			•	•	•		•		•
Retail Salespersons		•			•								•	•			•		•			•	•	•			1	•
Stock Clerks and Order Fillers <sup>31</sup>	•	•	•	•	•								•				$\sqcap$		•			•	•	•		П	$\exists$	٦
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.

<sup>&</sup>lt;sup>29</sup> Skills represent Accountants, a specialty occupation of Accountants and Auditors.

<sup>30</sup> Skills represent Heating and Air Conditioning Mechanics and Installers, a specialty occupation of Heating, Air Conditioning, and Refrigeration Mechanics and Installers.

<sup>&</sup>lt;sup>31</sup> 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.

													1	Νc	rk	Δ	CI	tivi	itie	25											
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	Ī	stures, or Material	Interacting With Computers			Monitoring and Controlling Resources	ol 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	I ninking creatively Training and Toaching Others	Transmit and Teaching Offices
Requires a Bachelor's Degree or High	_	1	U		O		O	ш	ш	O I	<u>υ</u>  -	-   -	-1-	_ -	- -	=   =	=   =		7	,	"	14	1	ш.	ш.	-	ш	0) (	7)   F		-   -
General and Operations Managers				•	•		•	•			T	T					1	•	•							T	•	•	T	Ţ	Т
Pharmacists	•	•						•	•			•	•			•			•		•		•			7	T		T	T	•
Sales Managers			•	•	•		•	•		(	•								•							1	•	•	•	T	T
Loan Officers				•				•	•	•									•		•		•	•			•				•
Accountants and Auditors <sup>32</sup>	•				•			•	•	•									•	•			•							$\perp$	•
Requires Some College, Postseconda	ry	No	on	-D	eç	jre	ее	Α۱	wa	rd	, o	r	As	sc	oci	at	e's	s [	)e	gre	ee	,									
First-Line Supervisors of Production and Operating Workers			•		•	•	•	•		(	•													•			•	•			
Heavy and Tractor-Trailer Truck Drivers						•		•	•	•	•		•	•				•	•			•								$\perp$	
Computer, Automated Teller, and Office Machine Repairers					•			•				•		•					•						•	•			•	•	•
Hairdressers, Hairstylists, and Cosmetologists		•		•				•	•	•				Ī					•		•			•					•	•	•
Heating, Air Conditioning, and Refrigeration Mechanics and Installers <sup>33</sup>	•					•							•	•					•			•			•	•					
Requires a High School Diploma or Ed	ļui	iva	ıle	nt	0	r L	_es	ss																							
Cashiers	L			•	•			•	•	•	•	•									•	•					•	•	•	$\perp$	╧
Retail Salespersons	L			•	•			•			•	•			•				•		•							•	•	•	•
Stock Clerks and Order Fillers <sup>34</sup>	L				•	•		•	$\perp$	$\perp$	(	•	•			$\perp$	$\perp$		•		•	•				$\perp$	$\perp$	$\perp$	$\perp$	1	•
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.

<sup>&</sup>lt;sup>32</sup> Work Activities represent Accountants, a specialty occupation of Accountants and Auditors.

<sup>33</sup> Work Activities represent Heating and Air Conditioning Mechanics and Installers, a specialty occupation of Heating, Air Conditioning, and Refrigeration Mechanics and Installers.

<sup>34</sup> 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	<ul> <li>First-Line Supervisors of Office and Administrative Support Workers</li> <li>Logistics Managers</li> <li>Wholesale and Retail Buyers, Except Farm Products</li> </ul>
Pharmacists	<ul> <li>Health Specialties Teachers, Postsecondary</li> <li>Medical Scientists, Except Epidemiologists</li> <li>Nursing Instructors and Teachers, Postsecondary</li> </ul>
Sales Managers	<ul> <li>Financial Managers, Branch or Department</li> <li>Logistics Managers</li> <li>Sales Representatives, Wholesale and Manufacturing, Technical and Scientific Products</li> </ul>
Loan Officers	<ul><li>Customs Brokers</li><li>Insurance Sales Agents</li><li>Personal Financial Advisors</li></ul>
Accountants and Auditors	<ul><li>Auditors</li><li>Financial Analysts</li><li>Risk Management Specialists</li></ul>
Requires Some College, Postsecon	dary Non-Degree Award, or Associate's Degree
First-Line Supervisors of Production and Operating Workers	<ul> <li>Non-Destructive Testing Specialists</li> <li>Industrial Production Managers</li> <li>Aircraft Cargo Handling Supervisors</li> </ul>
Heavy and Tractor-Trailer Truck Drivers	<ul> <li>Pile-Driver Operators</li> <li>Light Truck or Delivery Services Drivers</li> <li>Paving, Surfacing, and Tamping Equipment Operators</li> </ul>
Computer, Automated Teller, and Office Machine Repairers	<ul> <li>Computer User Support Specialists</li> <li>Electrical Engineering Technicians</li> <li>Audio and Video Equipment Technicians</li> </ul>
Hairdressers, Hairstylists, and Cosmetologists	<ul><li>Massage Therapists</li><li>Manicurists and Pedicurists</li><li>Skincare Specialists</li></ul>
Heating, Air Conditioning, and Refrigeration Mechanics and Installers	<ul> <li>Electricians</li> <li>Elevator Installers and Repairers</li> <li>Refrigeration Mechanics and Installers</li> </ul>
Requires a High School Diploma or	Equivalent or Less
Cashiers	<ul> <li>Amusement and Recreation Attendants</li> <li>Hosts and Hostesses, Restaurant, Lounge, and Coffee Shop</li> <li>Waiters and Waitresses</li> </ul>
Retail Salespersons	<ul><li>Concierges</li><li>Counter and Renal Clerk</li><li>Tellers</li></ul>
Stock Clerks and Order Fillers	<ul> <li>Dining Room and Cafeteria Attendants and Bartender Helpers</li> <li>Packers and Packagers, Hand</li> <li>Shipping, Receiving, and Traffic Clerks</li> </ul>
First-Line Supervisors of Retail Sales Workers	<ul> <li>First-Line Supervisors of Food Preparation and Serving Workers</li> <li>Hotel, Motel, and Resort Desk Clerks</li> <li>Wholesale and Retail Buyers, Except Farm Products</li> </ul>
Combined Food Preparation and Serving Workers, Including Fast Food	<ul> <li>Cooks, Fast Food</li> <li>Counter Attendants, Cafeteria, Food Concession, and Coffee Shop</li> <li>Food Servers, Nonrestaurant</li> </ul>

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 Joaquin Valley Economic Market employers in the Retail cluster who posted the most job advertisements during the 120-day period ending April 22, 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 <sup>35</sup> (120-day period)	Prior Year Job Advertisements (120-day period)	Numerical Change	Year-Over Percent Change (HWOL Job Advertisements)
Home Depot	251	73	178	243.8%
Macy's	221	101	120	118.8%
Lowe's	221	209	12	5.7%
Target Corporation	166	37	129	348.6%
Dollar Tree Stores, Inc.	126	28	98	350.0%
Sears Holdings Corporation	115	354	-239	-67.5%
Safeway Companies	89	5	84	1,680.0%
Walmart	85	43	42	97.7%
Rite Aid	68	49	19	38.8%
Love's Travel Stops	66	8	58	725.0%
JCPenney	58	32	26	81.3%
Office Depot	55	16	39	243.8%
Toys"R"Us	52	81	-29	-35.8%
Lithia Motors, Inc.	51	3	48	1,600.0%
WINCO FOODS	46	2	44	2,200.0%
Harbor Freight Tools	42	36	6	16.7%
Dick's Sporting Goods, Inc.	41	63	-22	-34.9%
Save Mart Supermarkets	40	51	-11	-21.6%
Staples	40	41	-1	-2.4%
The Dollar General	38	161	-123	-76.4%

 $Source: The\ Conference\ Board\ Help\ Wanted\ On Line^{\rm TM}\ (HWOL)\ Data\ Series:\ Period\ ending\ April\ 22,\ 2015.$ 

<sup>&</sup>lt;sup>35</sup> Totals do not include employers with anonymous job advertisements.

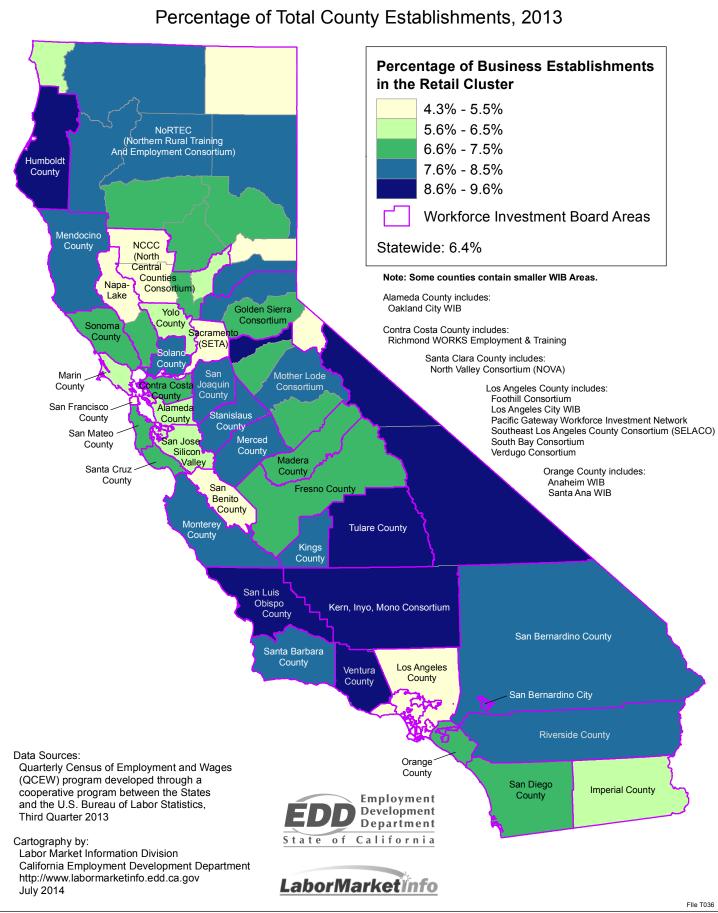
#### Instructional Programs for the Top Retail Cluster Occupations

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

Occupations	Classifica	ation of Instructional Program (CIP)	Tax	conomy of Programs (TOP)
	CIP Code	CIP Title	TOP Code	TOP Title
First-Line Supervisors of Production and Operating Workers	52.0205	Operations Management and Supervision	N/A	N/A
Heavy and Tractor-Trailer Truck Drivers	49.0205	Truck and Bus Driver/ Commercial Vehicle Operator and Instructor	094750	Truck and Bus Driving
Computer, Automated Teller, and Office Machine Repairers	47.0102 47.0104	Business Machine Repair Computer Installation and Repair Technology/Technician	093410	Computer Electronics
Haindra and Hairak diak	12.0401	Cosmetology/Cosmetologist, General	300700	Cosmetology and Barbering
Hairdressers, Hairstylists, and Cosmetologists	12.0406	Make-Up Artist/Specialist		
J	12.0412	Salon/Beauty Salon Management/Manager		
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		
First-Line Supervisors of	19.0203	Consumer Merchandising/ Retailing Management	050650	Retail Store Operations and Management
Retail Sales Workers	52.0212	Retail Management	050940	Sales and Salesmanship
	52.1803	Retailing and Retail Operations	050960	Display

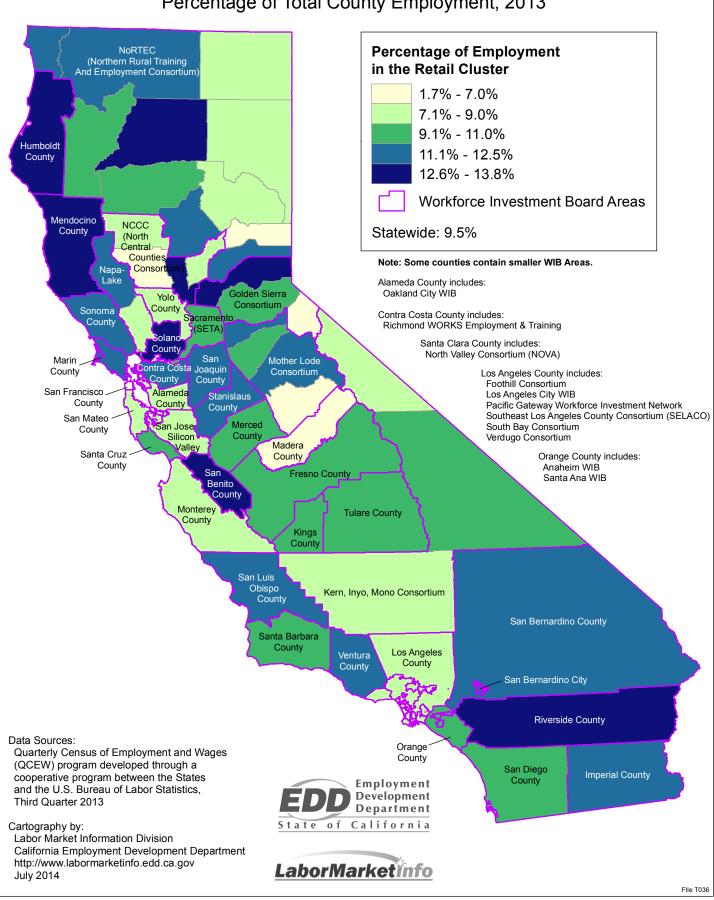
Source: U.S. Department of Education <u>Integrated Postsecondary Education Data System (IPEDS)</u> at www.nces.ed.gov; <u>California Community Colleges TOP-to-CIP Crosswalk</u> 7th Edition (2010), www.ccco.edu.

## California Retail Cluster



### California Retail Cluster

Percentage of Total County Employment, 2013





# Occupational Analysis: Health Care Services Cluster

San Joaquin Valley Economic Market
April 2015

Fresno, Kern, Kings, Madera, Merced, San Joaquin, Stanislaus, and Tulare Counties



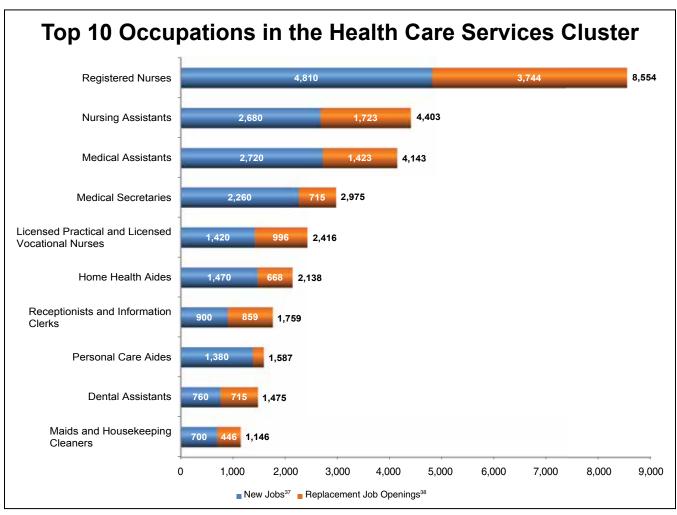


#### What is the Health Care Services Cluster?

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

#### Top 10 Occupations in the Health Care Services Cluster

The graph below identifies the top 10 occupations in the Health Care Services cluster, based on the San Joaquin Valley Economic Market's new job growth plus replacement openings. In sum, these 10 occupations represent nearly half of the 62,822 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, speaking and monitoring.<sup>36</sup>



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 <a href="https://www.labormarketinfo.edd.ca.gov">www.labormarketinfo.edd.ca.gov</a>.

<sup>&</sup>lt;sup>36</sup> U.S. Department of Labor's Occupational Information Network (O\*NET) at www.onetonline.org.

<sup>&</sup>lt;sup>37</sup> 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.

<sup>38</sup> 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 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<sup>TM</sup> (HWOL) data series over a recent 120-day period. HWOL compiles, analyzes, and categorizes job advertisements from numerous online job boards, including CalJOBS<sup>SM</sup> (www.caljobs.ca.gov), California's online job listing system.

Occupations	Total Job Openings <sup>39</sup> (2012-2022)	Median Hourly Wage (2014)	Median Annual Wage (2014)	Entry Level Education <sup>40</sup>	HWOL Job Ads <sup>41</sup> (120 days)
Registered Nurses	8,554	\$41.13	\$85,545	Associate's degree	5,806
Nursing Assistants	4,403	\$12.01	\$24,988	Postsecondary non-degree award	565
Medical Assistants	4,143	\$13.72	\$28,537	Postsecondary non-degree award	754
Medical Secretaries	2,975	\$16.61	\$34,566	High school diploma or equivalent	1,166
Licensed Practical and Licensed Vocational Nurses	2,416	\$24.28	\$50,504	Postsecondary non-degree award	875
Home Health Aides	2,138	\$10.43	\$21,688	Less than high school	432
Receptionists and Information Clerks	1,759	\$12.30	\$25,583	High school diploma or equivalent	2,061
Personal Care Aides	1,587	\$9.33	\$19,414	Less than high school	906
Dental Assistants	1,475	\$15.32	\$31,863	Postsecondary non-degree award	534
Maids and Housekeeping Cleaners	1,146	\$9.58	\$19,912	Less than high school	913

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 22, 2015.

<sup>&</sup>lt;sup>39</sup> Total job openings are the sum of new jobs and replacement job openings.

<sup>&</sup>lt;sup>40</sup> U.S. Department of Labor, Bureau of Labor Statistics (BLS) 2012 education levels.

<sup>41</sup> Totals represent job advertisements from employers in all industries. One job opening may be represented in more than one job advertisement.

#### Top Occupations for the Health Care Services Cluster by Education Level

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

Occupations	Total Job Openings <sup>42</sup> (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	974	\$53.33	\$110,923	965
Physical Therapists	581	\$44.24	\$92,016	895
Family and General Practitioners	575	\$82.52	\$171,630	233
Physician Assistants	521	\$53.96	\$112,227	387
Nurse Practitioners	519	\$54.06	\$112,448	142
Requires Some College, Postsecondary Non-	Degree Award	l, or Associate	's Degree	
Registered Nurses	8,554	\$41.13	\$85,545	5,806
Nursing Assistants	4,403	\$12.01	\$24,988	565
Medical Assistants	4,143	\$13.72	\$28,537	754
Licensed Practical and Licensed Vocational Nurses	2,416	\$24.28	\$50,504	875
Dental Assistants	1,475	\$15.32	\$31,863	534
Requires a High School Diploma or Equivalent	nt or Less			
Medical Secretaries	2,975	\$16.61	\$34,566	1,166
Home Health Aides	2,138	\$10.43	\$21,688	432
Receptionists and Information Clerks	1,759	\$12.30	\$25,583	2,061
Personal Care Aides	1,587	\$9.33	\$19,414	906
Maids and Housekeeping Cleaners	1,146	\$9.58	\$19,912	913

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 22, 2015.

<sup>&</sup>lt;sup>42</sup> Total job openings are the sum of new jobs and replacement job openings.

#### Skill Requirements in the Health Care Services Cluster

The table below lists the 10 top skills required for top occupations in the Health Care Services cluster, categorized by entry-level education requirements. Active listening, critical thinking, reading comprehension and social perceptiveness are the most commonly shared skills, followed by speaking. 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	Monitoring	Operations Analysis	Reading Comprehension	Science	Service Orientation	Social Perceptiveness	Speaking	Time Management	Writing
Requires a Bachelor's Degree or Higher				ı	İ							1	1				
Medical and Health Services Managers		•		•	•		•		•	•	•			•	•	•	
Physical Therapists		•		•	•		•		•		•		•	•	•		•
Family and General Practitioners	•	•	•		•		•				•	•		•	•		•
Physician Assistants	•	•		•	•				•		•		•	•	•		•
Nurse Practitioners	•	•			•	•	•		•		•	•		•			•
Requires Some College, Postsecondary Non-Degree	Awa	ırd,	or	As	soc	iat	e's	De	gre	е		1		1			
Registered Nurses	•	•		•	•			•	•		•		•	•	•		
Nursing Assistants	•	•		•	•				•		•		•	•	•		•
Medical Assistants	•	•		•	•				•		•		•	•	•		•
Licensed Practical and Licensed Vocational Nurses		•		•	•				•		•		•	•	•	•	•
Dental Assistants	•	•			•	•			•		•		•	•	•		•
Requires a High School Diploma or Equivalent or Les	s																
Medical Secretaries		•		•	•				•		•		•	•	•	•	•
Home Health Aides	•	•		•	•			•	•		•		•	•	•		
Receptionists and Information Clerks		•	•	•	•						•		•	•	•	•	•
Personal Care Aides	•	•		•	•				•		•		•	•	•		•
Maids and Housekeeping Cleaners		•		•	•	•			•		•		•	•	•	•	

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; assisting and caring for others; and monitor processes, materials, or surroundings.

											W	/or	'k A	Ac	tiv	/iti	es										
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	Inspecting Equipment, Structures, or Material	Making Decisions and Solving Problems	Monitor Processes, Materials, or Surroundings	Monitoring and Controlling Resources	Organizing, Planning, and Prioritizing Work	Performing Administrative Activities	Performing for or Working Directly with the Public	Performing General Physical Activities	Processing Information	Provide Consultation and Advice to Others	Resolving Conflicts and Negotiating with Others	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		•					•	•				•	•		•	•					•				•		•
Family and General Practitioners	•	•					•	•		•			•		•	•						•					•
Physician Assistants	•	•						•		•		Ì	•		•	•	Ì		ĺ	•		•			Ì		•
Nurse Practitioners		•					•	•		•			•		•	•		•		•							•
Requires Some College, Postsecondary No	n-C	)ec	jre	e /	Αw	ar	d,	or	Α	ss	oc	iat	e's	s C	)e(	gre	е										
Registered Nurses		•			•			•		•			•		•	•		•				•					•
Nursing Assistants		•			•			•		•		•	•		•	•		•				•					
Medical Assistants		•			•		•	•		•			•			•		•		•							•
Licensed Practical and Licensed Vocational Nurses		•			•		•	•				•	•		•	•		•									•
Dental Assistants		•						•	•	•		•	•		•	•		•									•
Requires a High School Diploma or Equival	eni	t o	r L	.es	s																						
Medical Secretaries		•		•	•			•		•			•		•			•				•					•
Home Health Aides		•			•		•	•				•	•			•		•	Ì			•					•
Receptionists and Information Clerks		•					•	•		•			•			•			•	•		•					•
Personal Care Aides		•			•		•	•				•	•		•	•		•			•						
Maids and Housekeeping Cleaners					•			•		•		•	•	•				•		•	•					•	

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 occupations.

Health Care Services Occupations	Related Occupations
Requires a Bachelor's Degree	or Higher
Medical and Health Services Managers	<ul><li>Management Analysts</li><li>Chief Executives</li><li>Human Resources Managers</li></ul>
Physical Therapists	<ul> <li>Health Specialties Teachers, Postsecondary</li> <li>Nursing Instructors and Teachers, Postsecondary</li> <li>Occupational Therapists</li> </ul>
Family and General Practitioners	<ul><li> Hospitalists</li><li> Physician Assistants</li><li> Nurse Midwives</li></ul>
Physician Assistants	<ul><li>Clinical Nurse Specialists</li><li>Nurse Midwives</li><li>Nurse Practitioners</li></ul>
Nurse Practitioners	<ul><li>Physician Assistants</li><li>Clinical Nurse Specialists</li><li>Nurse Midwives</li></ul>
Requires Some College, Posts	secondary Non-Degree Award, or Associate's
Registered Nurses	<ul> <li>Acute Care Nurses</li> <li>Critical Care Nurses</li> <li>Licensed Practical and Licensed Vocational Nurses</li> </ul>
Nursing Assistants <sup>43</sup>	• N/A
Medical Assistants	<ul><li>Pharmacy Technicians</li><li>Physical Therapist Assistants</li><li>Dental Assistants</li></ul>
Licensed Practical and Licensed Vocational Nurses	<ul><li>Acute Care Nurses</li><li>Cardiovascular Technologists and Technicians</li><li>Radiologic Technicians</li></ul>
Dental Assistants	<ul><li>Dental Hygienists</li><li>Surgical Technologists</li><li>Endoscopy Technicians</li></ul>
Requires a High School Diplo	ma or Equivalent or Less
Medical Secretaries	<ul> <li>Medical Records and Health Information Technicians</li> <li>Receptionists and Information Clerks</li> <li>Bill and Account Collectors</li> </ul>
Home Health Aides	<ul> <li>Personal Care Aides</li> <li>Occupational Therapy Aides</li> <li>Physical Therapist Aides</li> </ul>
Receptionists and Information Clerks	<ul> <li>Medical Records and Health Information Technicians</li> <li>Medical Secretaries</li> <li>Office Clerks, General</li> </ul>
Personal Care Aides	<ul> <li>Home Health Aides</li> <li>Ambulance Drivers and Attendants, Except Emergency Medical Technicians</li> <li>Physical Therapist Aides</li> </ul>
Maids and Housekeeping Cleaners	<ul> <li>Janitors and Cleaners, Except Maids and Housekeeping Cleaners</li> <li>Dining Room and Cafeteria Attendants and Bartender Helpers</li> <li>Food Servers, Nonrestaurant</li> </ul>

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

<sup>&</sup>lt;sup>43</sup> Currently no related occupations reported by O\*NET.

#### **Employer Demand for the Health Care Services Cluster**

The following table lists the San Joaquin Valley Economic Market employers in the Health Care Services cluster who posted the most job advertisements during the 120-day period ending April 22, 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 <sup>44</sup> (120-day period)	Prior Year Job Advertisements (120-day period)	Numerical Change	Year-Over Percent Change (HWOL Job Advertisements)
Dignity Health	672	844	-172	-20.4%
Kern Medical Center	327	316	11	3.5%
Tenet Healthcare Corporation	313	171	142	83.0%
St. Joseph Medical Center	256	85	171	201.2%
Kaiser Permanente	238	95	143	150.5%
Sutter Health	224	175	49	28.0%
Children's Hospital Central California	175	179	-4	-2.2%
Onward Healthcare	153	63	90	142.9%
American Mobile Healthcare	107	100	7	7.0%
Kaweah Delta Medical Center	102	68	34	50.0%
Brookdale Senior Living	88	51	37	72.5%
San Joaquin Community Hospital	88	92	-4	-4.3%
DaVita, Inc.	83	111	-28	-25.2%
Mercy Hospital	80	17	63	370.6%
Adventist HealthCare	73	54	19	35.2%
Avalon Health Care, Inc.	69	53	16	30.2%
Golden Living	64	60	4	6.7%
Western Dental	60	30	30	100.0%
Aureus Medical	48	5	43	860.0%
Genesis HealthCare	43	22	21	95.5%

Source: The Conference Board Help Wanted OnLine™ (HWOL) Data Series: Period ending April 22, 2015.

<sup>&</sup>lt;sup>44</sup> Totals do not include employers with anonymous job advertisements.

#### Instructional Programs for the Health Care Services Cluster Occupations

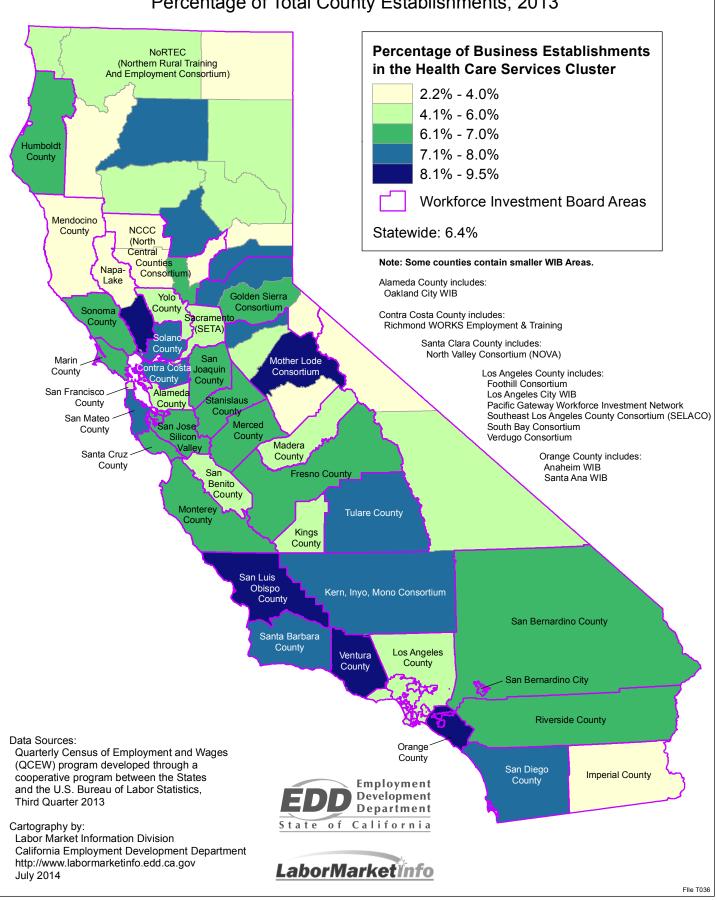
The table below provides examples of instructional programs related to some of the top occupations in the Health Care Services cluster, particularly those that require less than a bachelor's degree. These programs train individuals for occupations throughout many industries and are not limited to the 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	Classification of Instructional Program (CIP)		Taxonomy of Programs (TOP)		
	CIP Code	CIP Title	TOP Code	TOP Title	
Registered Nurses	51.3801	Registered Nursing/Registered Nurse	123000	Nursing	
	51.3813	Clinical Nurse Specialist	123010 Registered Nursing		
	51.3816	Emergency Room/Trauma Nursing			
Nursing Assistants	51.2601	Health Aide	123030	Certified Nurse Assistant	
	51.3902	Nursing Assistant/Aide and Patient Care Assistant/Aide			
	51.3999	Practical Nursing, Vocational Nursing and Nursing Assistants, Other			
Medical Assistants	51.0710	Medical Office Assistant/Specialist	051420	Medical Office Technology	
	51.0712	Medical Reception/Receptionist	120800	Medical Assisting	
	51.0713	Medical Insurance Coding Specialist/Coder	120810	Clinical Medical Assisting	
Licensed Practical and Licensed Vocational Nurses Assistants	51.3901	Licensed Practical/Vocational Nurse Training	123020	Licensed Vocational Nursing	
	51.3999	Practical Nursing, Vocational Nursing and Nursing Assistants, Other			
Dental	51.0601	Dental Assisting/Assistant	124010	Dental Assistant	
Medical Secretaries	51.0710	Medical Office Assistant/Specialist	051420	Medical Office Technology	
	51.0714	Medical Insurance Specialist/ Medical Biller			
	51.0716	Medical Administrative/Executive Assistant and Medical Secretary			
Home Health Aides	51.2602	Home Health Aide/Home Attendant	123080	Home Health Aide	
Receptionists and Information Clerks	52.0406	Receptionist			
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 Community Colleges TOP-to-CIP Crosswalk</u> 7th Edition (2010), www.ccco.edu.

## California Health Care Services Cluster

Percentage of Total County Establishments, 2013



## California Health Care Services Cluster

Percentage of Total County Employment, 2013

