

Regional Economic Analysis Profile

Southern Border Economic Market February 2015



Imperial and San Diego Counties





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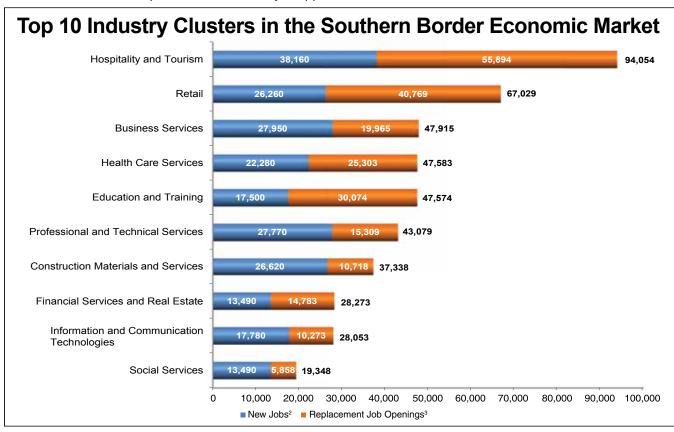
SUMMARY OF THE SOUTHERN BORDER ECONOMIC MARKET INDUSTRY CLUSTERS

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 the Southern Border Economic Market industry clusters. In the first generation, the Southern Border Region Profile (September 2014) highlighted the top three industry clusters ranked by the projected total job openings: Hospitality and Tourism, Retail, and Education and Training. In this second generation, the Southern Border Economic Market report (February 2015) brings attention to three new clusters: Business Services, Health Care Services, and Professional and Technical Services. This report focuses on the future employment demand of economic market industry clusters and features them as primary investment opportunities for the California workforce development system. The goal of this report is to account for industry clusters with the largest number of projected total job openings¹ and help the California workforce development system prepare the state's workforce to compete for these future job opportunities.



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

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

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

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

INDUSTRY CLUSTER DESCRIPTIONS

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

The **Hospitality and Tourism** industry cluster includes interrelated industries such as eating establishments, hotels and motels, casinos, museums, and sightseeing transportation. During 2013-2014,* this cluster comprised nearly 172,000 workers, or 13.6 percent of the economic market's employment. Industries within this cluster with the most projected job openings include:

- Restaurants and Other Eating Places
- Traveler Accommodation
- · Amusement Parks and Arcades
- Other Amusement and Recreation Industries
- Drinking Places (Alcoholic Beverages)

The **Retail** industry cluster includes grocery and department stores, dollar stores, retail pharmacies, and clothing specialty stores. During 2013-2014,* this cluster employed almost 135,000 workers, or 10.7 percent of the economic market's total employment. Industries projected to have the largest number of jobs (new and replacement) include:

- Grocery Stores
- Other General Merchandise Stores
- Department Stores
- · Clothing Stores
- Automobile Dealers

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 100,000 people during 2013-2014,* or 8 percent of the economic market's workforce. Top industries in this cluster include:

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

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 136,000 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:

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

The **Education and Training** industry cluster is comprised of public and private elementary and high schools, community colleges, universities, and professional schools with programs such as dental, law, and medical. Other establishments include English as a Second Language (ESL) programs, test preparation and tutoring, or driving instruction. During 2013-2014,* this cluster employed more than 128,000 people in the economic market, accounting for 10.2 percent of the workforce. Top industries within this cluster include:

- Elementary and Secondary Schools
- · Colleges, Universities, and Professional Schools
- Junior Colleges
- Technical and Trade Schools
- · Other Schools and Instruction

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

INDUSTRY CLUSTER DESCRIPTIONS

The **Professional and Technical Services** industry cluster is comprised of interrelated industries that include engineering and architectural firms, law offices, advertising companies, and accounting firms. In 2013-2014,* nearly 77,000 people were employed in the economic market, or 6.1 percent of the workforce. Top industries within this cluster include:

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

The **Construction Materials and Services** industry cluster is comprised of builders of mechanical systems such as electrical, heating, and water; specialty trades outfits such as drywall, flooring, and painting contractors; residential and commercial builders; and contractors who complete foundation and framing work. During 2013-2014,* nearly 64,000 workers made up the cluster's employment, representing 5.1 percent of the economic market's total workforce. Industries showing the highest projected job openings include:

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

The **Financial Services and Real Estate** industry cluster includes commercial banks, savings institutions, credit unions, credit card companies, insurance firms, and real estate appraisers or property management companies. In total, the cluster employed about 67,000 people, which accounted for 5.3 percent of the economic market's workforce in 2013-2014.* Industries showing the highest projected job openings include:

- Insurance Carriers
- · Activities Related to Real Estate
- Depository Credit Intermediation
- · Lessors of Real Estate
- · Nondepository Credit Intermediation

The Information and Communication Technologies industry cluster includes interdependent industries related to computers and peripheral equipment, as well as software design and manufacturing, computer programming services, installation services, and wireless telecommunications carriers. For 2013-2014,* this cluster employed more than 54,000 workers, or 4.3 percent of the economic market's total employment. Industries with the highest number of expected job openings include:

- Computer Systems Design and Related Services
- Wholesale Electronic Markets and Agents and Brokers
- Wired Telecommunications Carriers
- Software Publishers
- · Other Information Services

The **Social Services** industry cluster is comprised of establishments and agencies (public and private) that provide non-residential services for the welfare of children, adults, the elderly, and disabled. Examples include nonmedical in-home care programs, day care centers, and community food banks. In total, the cluster employed nearly 44,000 people and accounted for 3.5 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

^{*} 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 Southern Border Economic Market.

Hospit	ality and Tourism	Busin	ess Services
4871	Scenic and Sightseeing Transportation, Land	5511	Management of Companies and Enterprises
4872	Scenic and Sightseeing Transportation, Water	5611	Office Administrative Services
4879	Scenic and Sightseeing Transportation, Other	5612	Facilities Support Services
5615	Travel Arrangement and Reservation Services	5613	Employment Services
7121	Museums, Historical Sites, and Similar	5614	Business Support Services
	Institutions	5616	Investigation and Security Services
7131	Amusement Parks and Arcades	5617	Services to Buildings and Dwellings
7132	Gambling Industries	5619	Other Support Services
7139	Other Amusement and Recreation Industries	5621	Waste Collection
7211	Traveler Accommodation	5622	Waste Treatment and Disposal
7212	RV (Recreational Vehicle) Parks and	5629	Remediation and Other Waste Management
	Recreational Camps		Services
7213	Rooming and Boarding Houses	Health	Care Services
7223	Special Food Services		
7224	Drinking Places (Alcoholic Beverages)	6211	Offices of Physicians
7225	Restaurants and Other Eating Places	6212	Offices of Dentists
Retail		6213	Offices of Other Health Practitioners
		6214	Outpatient Care Centers
4411	Automobile Dealers	6215	Medical and Diagnostic Laboratories
4412	Other Motor Vehicle Dealers	6216	Home Health Care Services
4413	Automotive Parts, Accessories, and Tire Stores	6219	Other Ambulatory Health Care Services
4431	Electronics and Appliance Stores	6221	General Medical and Surgical Hospitals
4441	Building Material and Supplies Dealers	6222	Psychiatric and Substance Abuse Hospitals
4451	Grocery Stores	6223	Specialty (except Psychiatric and Substance
4452	Specialty Food Stores	0004	Abuse) Hospitals
4453	Beer, Wine, and Liquor Stores	6231	Nursing Care Facilities (Skilled Nursing
4461	Health and Personal Care Stores	0000	Facilities)
4471	Gasoline Stations	6232	Residential Intellectual and Developmental
4481	Clothing Stores		Disability, Mental Health, and Substance
4482	Shoe Stores	0000	Abuse Facilities
4483	Jewelry, Luggage, and Leather Goods Stores	6233	Continuing Care Retirement Communities and
4511	Sporting Goods, Hobby, and Musical	0000	Assisted Living Facilities for the Elderly
4501	Instrument Stores	6239	Other Residential Care Facilities
4521	Department Stores	Educa	tion and Training
4529	Other General Merchandise Stores	6111	Elementary and Secondary Schools
4532	Office Supplies, Stationery, and Gift Stores	6112	Junior Colleges
4533	Used Merchandise Stores	6113	Colleges, Universities, and Professional
4542	Vending Machine Operators	00	Schools
		6114	Business Schools and Computer and
			Management Training
		6115	Technical and Trade Schools
		6116	Other Schools and Instruction
		6117	Educational Support Services
		•	

INDUSTRY CLUSTER DEFINITIONS

Profes	ssional and Technical Services	Finan	cial Services and Real Estate
5411	Legal Services	5211	Monetary Authorities-Central Bank
5412	Accounting, Tax Preparation, Bookkeeping,	5221	Depository Credit Intermediation
	and Payroll Services	5222	Nondepository Credit Intermediation
5413	Architectural, Engineering, and Related	5223	Activities Related to Credit Intermediation
	Services	5231	Securities and Commodity Contracts
5414	Specialized Design Services		Intermediation and Brokerage
5416	Management, Scientific, and Technical	5232	Securities and Commodity Exchanges
	Consulting Services	5239	Other Financial Investment Activities
5418	Advertising, Public Relations, and Related	5241	Insurance Carriers
	Services	5242	Agencies, Brokerages, and Other Insurance
5419	Other Professional, Scientific, and Technical		Related Activities
	Services	5251	Insurance and Employee Benefit Funds
0	westen Matariala and Camiaca	5259	Other Investment Pools and Funds
Const	ruction Materials and Services	5311	Lessors of Real Estate
2123	Nonmetallic Mineral Mining and Quarrying	5312	Offices of Real Estate Agents and Brokers
2213	Water, Sewage and Other Systems	5313	Activities Related to Real Estate
2361	Residential Building Construction		
2362	Nonresidential Building Construction	Intorn	nation and Communication Technologies
2372	Land Subdivision	3341	Computer and Peripheral Equipment
2373	Highway, Street, and Bridge Construction		Manufacturing
2379	Other Heavy and Civil Engineering	3342	Communications Equipment Manufacturing
	Construction	3344	Semiconductor and Other Electronic
2381	Foundation, Structure, and Building Exterior		Component Manufacturing
	Contractors	3359	Other Electrical Equipment and Component
2382	Building Equipment Contractors		Manufacturing
2383	Building Finishing Contractors	4251	Wholesale Electronic Markets and Agents and
2389	Other Specialty Trade Contractors		Brokers
3211	Sawmills and Wood Preservation	5112	Software Publishers
3271	Clay Product and Refractory Manufacturing	5171	Wired Telecommunications Carriers
3272	Glass and Glass Product Manufacturing	5172	Wireless Telecommunications Carriers
3273	Cement and Concrete Product Manufacturing		(except Satellite)
3274	Lime and Gypsum Product Manufacturing	5174	Satellite Telecommunications
3279	Other Nonmetallic Mineral Product	5179	Other Telecommunications
	Manufacturing	5182	Data Processing, Hosting, and Related
3339	Other General Purpose Machinery		Services
	Manufacturing	5191	Other Information Services
3351	Electric Lighting Equipment Manufacturing	5415	Computer Systems Design and Related
			Services
		8112	Electronic and Precision Equipment Repair
			and Maintenance
		Social	l Services
		6241	Individual and Family Services
		6242	Community Food and Housing, and
			Emergency and Other Relief Services
		6243	Vocational Rehabilitation Services

6244 Child Day Care Services



Occupational Analysis: Business Services Cluster

Southern Border Economic Market February 2015

Imperial and San Diego Counties



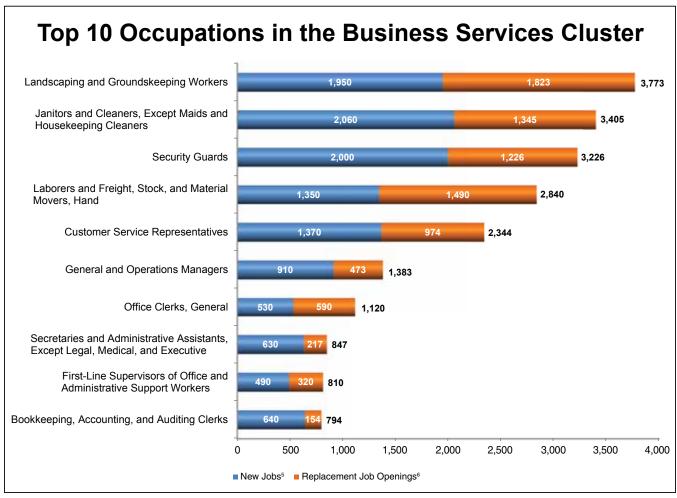


What is the Business Services Cluster?

The Business Services cluster is comprised of 11 industries that provide services to other organizations and businesses. Employers in this cluster include temporary agencies, janitorial and landscaping businesses, corporate offices and holding companies, private investigation services, and billing services. Establishments in this cluster also include technical consultants, housecleaning services, and pest control firms. Workers employed within this cluster often 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 Business Services Cluster

The graph below identifies the top 10 occupations in the Business Services cluster, based on the Southern Border Economic Market's new job growth plus replacement openings. In sum, these 10 occupations represent almost half of the 47,915 total job openings projected in this cluster between 2012 and 2022. Moreover, many share the same required skills such as active listening, reading comprehension, speaking, critical thinking, monitoring, and social perceptiveness.⁴



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

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

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

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

Top 10 Occupations and Recent Job Demand in the Business Services Cluster

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

Occupations	Total Job Openings ⁷ (2012-2022)	Median Hourly Wage (2014)	Median Annual Wage (2014)	Entry Level Education ⁸	HWOL Job Ads ⁹ (120 days)
Landscaping and Groundskeeping Workers	3,773	\$11.94	\$24,823	Less than high school	1,465
Janitors and Cleaners, Except Maids and Housekeeping Cleaners	3,405	\$12.02	\$24,997	Less than high school	1,746
Security Guards	3,226	\$11.78	\$24,496	High school diploma or equivalent	1,062
Laborers and Freight, Stock, and Material Movers, Hand	2,840	\$11.67	\$24,261	Less than high school	844
Customer Service Representatives	2,344	\$17.97	\$37,366	High school diploma or equivalent	567
General and Operations Managers	1,383	\$49.44	\$102,838	Bachelor's degree	2,585
Office Clerks, General	1,120	\$14.20	\$29,539	High school diploma or equivalent	523
Secretaries and Administrative Assistants, Except Legal, Medical, and Executive	847	\$18.31	\$38,083	High school diploma or equivalent	875
First-Line Supervisors of Office and Administrative Support Workers	810	\$25.37	\$52,780	High school diploma or equivalent	810
Bookkeeping, Accounting, and Auditing Clerks	794	\$19.47	\$40,489	High school diploma or equivalent	366

Source: California Employment Development Department, Projections of Employment 2012-2022; Occupational Employment Statistics Wage Survey, updated to 3rd Q, 2014; The Conference Board Help Wanted OnLine™ (HWOL) Data Series, 120-day period ending January 12, 2015.

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

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

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

Top Occupations for the Business 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 Business Services cluster. The table includes the Southern Border Economic Market's projected total job openings and median hourly and annual wages. In addition, recent totals of online job advertisements over a 120-day period are included. Grouping occupations by education levels allows individuals to better gauge the potential for skills transference and upward mobility within the cluster.

Occupations	Total Job Openings ¹⁰ (2012-2022)	Median Hourly Wage (2014)	Median Annual Wage (2014)	HWOL Job Ads (120 days)
Requires a Bachelor's Degree or High	ner			
General and Operations Managers	1,383	\$49.44	\$102,838	567
Accountants and Auditors	636	\$34.58	\$71,926	2,096
Human Resources Specialists	598	\$29.93	\$62,257	509
Market Research Analysts and Marketing Specialists	536	\$29.56	\$61,495	605
Financial Managers	439	\$58.21	\$121,082	771
Requires Some College, Postseconda	ary Non-Degree	Award, or Asso	ociate's Degree	
Computer User Support Specialists	407	\$23.68	\$49,251	1,737
Registered Nurses	386	\$40.71	\$84,680	3,919
Licensed Practical and Licensed Vocational Nurses	265	\$23.76	\$49,432	617
Nursing Assistants	163	\$13.56	\$28,212	323
Computer Network Support Specialists	121	\$34.95	\$72,705	16
Requires a High School Diploma or E	quivalent or Le	ss		
Landscaping and Groundskeeping Workers	3,773	\$11.94	\$24,823	366
Janitors and Cleaners, Except Maids and Housekeeping Cleaners	3,405	\$12.02	\$24,997	810
Security Guards	3,226	\$11.78	\$24,496	875
Laborers and Freight, Stock, and Material Movers, Hand	2,840	\$11.67	\$24,261	523
Customer Service Representatives	2,344	\$17.97	\$37,366	2,585

Source: California Employment Development Department, Projections of Employment 2012-2022; Occupational Employment Statistics Wage Survey, updated to 3rd Q, 2014; The Conference Board Help Wanted OnLine™ (HWOL) Data Series, 120-day period ending January 12, 2015.

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

Skill Requirements in the Business Services Cluster

The table below lists the 10 top skills required for top occupations in the Business Services cluster, categorized by entry-level education requirements. Active listening, reading comprehension, and speaking are the most commonly shared skills, followed by critical thinking and monitoring. 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	Management of Personnel Resources	Mathematics	Monitoring	Operation and Control	Operation Monitoring	Persuasion	Reading Comprehension	Service Orientation	Social Perceptiveness	Speaking	Systems Analysis	Systems Evaluation	Time Management	Troubleshooting	Writing
Requires a Bachelor's Degree or Highe	r																						
General and Operations Managers	•	•		•	•				•		•				•		•	•					•
Accountants and Auditors ¹¹	•	•			•		•			•	•				•			•	•				•
Human Resources Specialists	•	•		•	•						•				•	•	•	•					•
Market Research Analysts and Marketing Specialists	•	•			•		•				•				•			•	•	•			•
Financial Managers ¹²	•	•			•			•			•			•	•		•	•					•
Requires Some College, Postsecondary	y N	on-	De	gre	ee /	٩wa	ard	, oı	· As	sso	cia	ite'	s D	egı	ree								
Computer User Support Specialists	•	•		•	•	•					•				•	•		•					•
Registered Nurses	•	•		•	•			•			•				•	•	•	•					
Licensed Practical and Licensed Vocational Nurses		•		•	•						•				•	•	•	•			•		•
Nursing Assistants	•	•		•	•						•				•	•	•	•					•
Computer Network Support Specialists	•	•			•		•	•			•				•			•	•				•
Requires a High School Diploma or Equ	uiv	ale	nt c	or L	_es	s																	
Landscaping and Groundskeeping Workers		•	•				•				•	•	•		•		•	•			•		
Janitors and Cleaners, Except Maids and Housekeeping Cleaners	•	•		•	•		•								•	•	•	•			•		
Security Guards		•		•	•						•			•	•	•	•	•					•
Laborers and Freight, Stock, and Material Movers, Hand		•	•	•	•						•	•	•		•			•				•	
Customer Service Representatives		•		•	•						•			•	•	•	•	•					•

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

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

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

Work Activities in the Business Services Cluster

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

														٧	Vo	rk	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	Controlling Machines and Processes	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	Interacting With Computers	Judging the Qualities of Things, Services, or People	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 for or Working Directly with the Public	Performing General Physical Activities	Processing Information	Provide Consultation and Advice to Others	Repairing and Maintaining Mechanical Equipment	Resolving Conflicts and Negotiating with Others	Scheduling Work and Activities	Staffing Organizational Units	Thinking Creatively	Updating and Using Relevant Knowledge
Requires a Bachelor's Degree	or	Hi	igh	er																													
General and Operations Managers				•	•		•		•									•		•		•							•	•		•	
Accountants and Auditors ¹³	•				•				•	•	•							•				•	•			•						\exists	•
Human Resources Specialists				•	•				•		•							•				•	•						•	•	•		\neg
Market Research Analysts and Marketing Specialists	•			•	•				•		•			•				•				•				•							•
Financial Managers ¹⁴			•		•		•		•			•				•		•				•							•				•
Requires Some College, Posts	ec	or	nda	ıry	N	on	ı-D	eç	jre	ee .	Αv	vai	d,	or	Α	ss	oc	iat	te's	s C)e	gre	ee										
Computer User Support Specialists					•				•		•			•		•		•				•				•						•	•
Registered Nurses		•			•				•		•			•				•	•			•				•							•
Licensed Practical and Licensed Vocational Nurses		•			•			•	•				•	•				•	•			•											•
Nursing Assistants		•			•				•		•		•	•				•	•			•				•							
Computer Network Support Specialists					•				•		•					•			•			•				•	•					•	•
Requires a High School Diplor	ma	OI	r E	qu	iva	ale	ent	0	r L	.es	s																						
Landscaping and Groundskeeping Workers						•			•				•		•				•		•	•			•			•					•
Janitors and Cleaners, Except Maids and Housekeeping Cleaners					•	•			•				•		•			•	•			•		•	•								
Security Guards		•			•		•		•	•	•						•	•	•						•								
Laborers and Freight, Stock, and Material Movers, Hand					•	•			•	•			•	•					•		•	•			•								
Customer Service Representatives				•	•				•		•			•				•				•				•			•				•

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

¹³ Work Activities listed represent Accountants, a specialty occupation of Accountants and Auditors.

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

Related Occupations for the Business Services Cluster

The table below lists top occupations in the Business 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 Business Services cluster occupations.

Business Services Occupations	Related Occupations
Requires a Bachelor's Degree or Hi	gher
General and Operations Managers	 First-Line Supervisors of Office and Administrative Support Workers Logistics Managers Storage and Distribution Managers
Accountants and Auditors	Financial AnalystsPersonal Financial AdvisorsRisk Management Specialists
Human Resources Specialists	 Fraud Examiners, Investigators and Analysts Management Analysts Market Research Analysts and Marketing Specialists
Market Research Analysts and Marketing Specialists	Management AnalystsRegulatory Affairs SpecialistsRisk Management Specialists
Financial Managers	 Human Resources Specialists Sales Agents, Financial Services Sales Agents, Securities and Commodities
Requires Some College, Postsecon	dary Non-Degree Award, or Associate's Degree
Computer User Support Specialists	 Computer, Automated Teller, and Office Machine Repairers Electrical Engineering Technicians Web Administrators
Registered Nurses	 Emergency Medical Technicians and Paramedics Licensed Practical and Licensed Vocational Nurses Medical Assistants
Licensed Practical and Licensed Vocational Nurses	 Occupational Therapy Assistants Physical Therapist Assistants Social and Human Service Assistants
Nursing Assistants ¹⁵	• N/A
Computer Network Support Specialists ¹⁵	• N/A
Requires a High School Diploma or	Equivalent or Less
Landscaping and Groundskeeping Workers	Construction LaborersHelpersProduction WorkersNursery Workers
Janitors and Cleaners, Except Maids and Housekeeping Cleaners	DishwashersFood Preparation WorkersFood Servers, Nonrestaurant
Security Guards	 Lifeguards, Ski Patrol, and Other Recreational Protective Service Workers Postal Service Mail Carriers Shipping, Receiving, and Traffic Clerks
Laborers and Freight, Stock, and Material Movers, Hand	 Fence Erectors Industrial Truck and Tractor Operators Rail-Track Laying and Maintenance Equipment Operators
Customer Service Representatives	 Bill and Account Collectors Hotel, Motel, and Resort Desk Clerks Medical Records and Health Information Technicians

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

 $^{^{\}rm 15}$ Currently no related occupations reported by O*NET.

Employer Demand for the Business Services Cluster

The following table lists the Southern Border Economic Market employers in the Business Services cluster who posted the most job advertisements during the 120-day period ending January 12, 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.

Business Services Cluster Employers	Recent Job Advertisements ¹⁶ (120-day period)	Prior Year Job Advertisements (120-day period)	Numerical Change	Year-Over Percent Change (HWOL Job Advertisements)
Robert Half International	984	611	373	61.0%
Volt Workforce Solutions	490	589	-99	-16.8%
Aerotek	426	447	-21	-4.7%
Kforce Professional Staffing, Inc.	417	402	15	3.7%
Trustaff	387	152	235	154.6%
Randstad	333	240	93	38.8%
Accountemps	331	207	124	59.9%
AppleOne	323	353	-30	-8.5%
Kelly Services	220	182	38	20.9%
Manpower	173	136	37	27.2%
Department Of Defense	162	0	162	_
Supplemental Health Care	155	69	86	124.6%
TEKsystems	131	104	27	26.0%
Universal Protection Service	124	95	29	30.5%
Adecco	108	435	-327	-75.2%
Vaco	107	133	-26	-19.5%
UPS	97	50	47	94.0%
TalentBurst	91	60	31	51.7%
Terminix	85	34	51	150.0%
Select Staffing	85	0	85	_

Source: The Conference Board Help Wanted OnLine™ (HWOL) Data Series: Period ending January 12, 2015.

 $^{^{\}rm 16}$ Totals do not include employers with anonymous job advertisements.

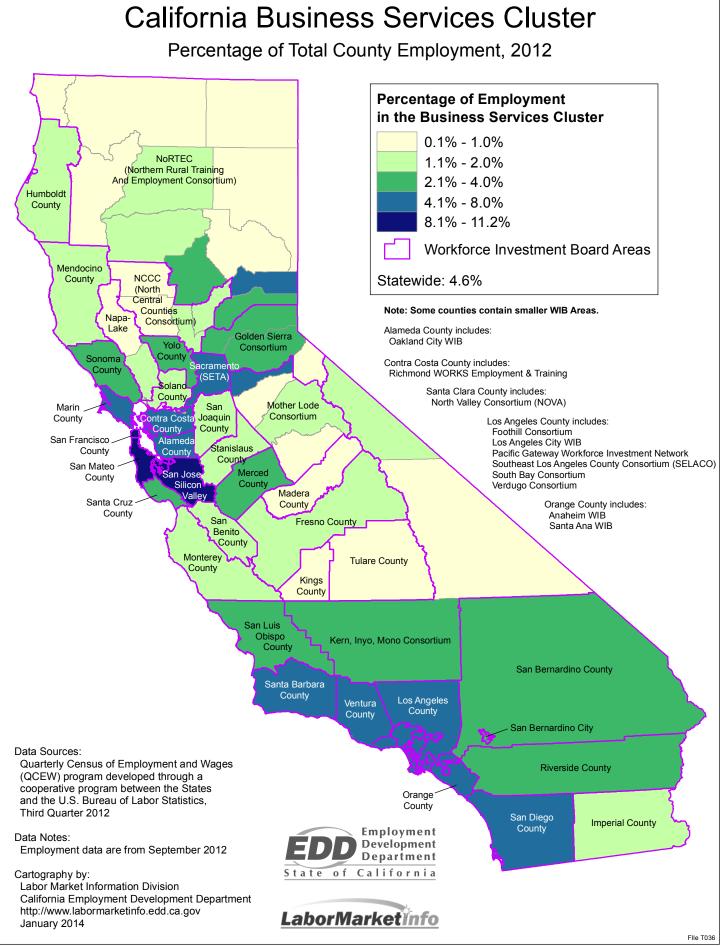
Instructional Programs for the Top Business Services Cluster Occupations

The table below provides examples of instructional programs related to some of the top occupations in the Business 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 Business 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	Class	ification of Instructional Program (CIP)	Taxono	omy of Programs (TOP)
	CIP Code	CIP Title	TOP Code	TOP Title
Computer User Support Specialists	01.0106 11.1006 51.0709	Agricultural Business Technology Computer Support Specialist Medical Office Computer Specialist/ Assistant	070820	Computer Support
Registered Nurses	51.3801 51.3802 51.3803	Registered Nursing/Registered Nurse Nursing Administration Adult Health Nurse/Nursing	123000 123010	Nursing Registered Nursing
Licensed Practical and Licensed Vocational Nurses	51.3901 51.3999	Licensed Practical/Vocational Nurse Training Practical Nursing, Vocational Nursing and Nursing Assistants, Other	123020	Licensed Vocational Nursing
Nursing Assistants	51.2601 51.3902 51.3999	Health Aide Nursing Assistant/Aide and Patient Care Assistant/Aide Practical Nursing, Vocational Nursing and Nursing Assistants, Other	123030	Certified Nurse Assistant
Computer Network Support Specialists	11.0201 11.0501 11.0701	Computer Programming/ Programmer, General Computer Systems Analysis/Analyst Computer Science	070700 070710 070730	Computer Software Development Computer Programming Computer Systems Analysis
Customer Service Representatives	52.0406 52.0411	Receptionist Customer Service Support/Call Center/Teleservice Operation	051800	Customer Service

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.cccco.edu.

California Business Services Cluster Percentage of Total County Establishments, 2012 **Percentage of Business Establishments** in the Business Services Cluster 0.4% - 2.0% **NoRTEC** 2.1% - 4.0% (Northern Rural Training And Employment Consortium) 4.1% - 6.0% Humboldt 6.1% - 8.0% County 8.1% - 12.3% Workforce Investment Board Areas Mendocino NCCC County Statewide: 8.0% (North Central Note: Some counties contain smaller WIB Areas. Counties Napa-Consortium) Lake Alameda County includes: Golden Sierra Oakland City WIB Consortium County Contra Costa County includes: County Richmond WORKS Employment & Training (SETA) Soland Santa Clara County includes: County North Valley Consortium (NOVA) Mother Lode San Marin Consortium tra Costa Joaquin County Los Angeles County includes: County county Foothill Consortium Alameda San Francisco Los Angeles City WIB Stanislaus County Pacific Gateway Workforce Investment Network County Southeast Los Angeles County Consortium (SELACO) San Mateo Merced San Jose South Bay Consortium County Silicon County Verdugo Consortium Madera Valley Santa Cruz Orange County includes: County County Anaheim WIB Fresno County Santa Ana WIB Benito County Monterey Tulare County County Kings County San Luis Kern, Inyo, Mono Consortium San Bernardino County Santa Barbara County Los Angeles Ventura 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 2012 Department State of California Cartography by: **Labor Market Information Division** California Employment Development Department http://www.labormarketinfo.edd.ca.gov LaborMarketinfo January 2014





Occupational Analysis: Health Care Services Cluster

Southern Border Economic Market February 2015

Imperial and San Diego Counties



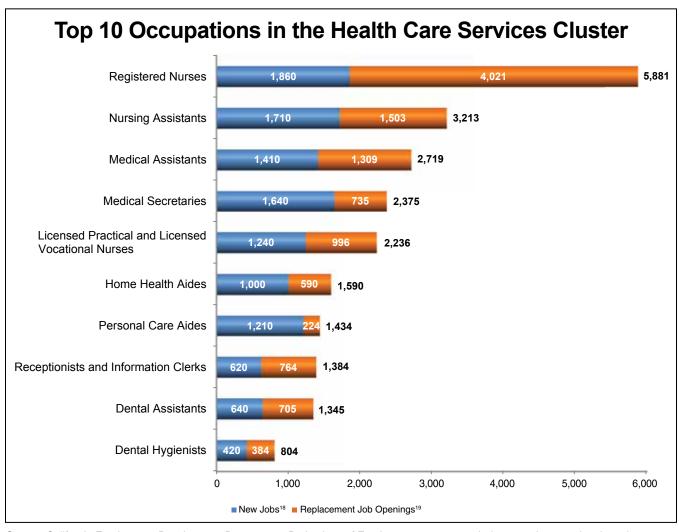


What is the Health Care Services Cluster?

The Health Care Services cluster is comprised of 14 industries that include hospitals and doctor's offices, diagnostic laboratories, continuing care retirement communities, home health care services, and other activities related to health care. 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 Southern Border Economic Market's new job growth plus replacement openings. In sum, these 10 occupations represent almost half of the 47,583 total job openings projected in this cluster between 2012 and 2022. Moreover, many share the same required skills such as active listening, critical thinking, reading comprehension, service orientation, social perceptiveness, and speaking.¹⁷



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

¹⁷ U.S. Department of Labor's Occupational Information Network (O*NET) at www.onetonline.org.

¹⁸ 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.

¹⁹ 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 Southern Border 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 OnLineTM (HWOL) data series over a 120-day period. HWOL compiles, analyzes, and categorizes job advertisements from numerous online job boards, including CalJOBSSM (www.caljobs.ca.gov), California's online job listing system.

Occupations	Total Job Openings ²⁰ (2012-2022)	Median Hourly Wage (2014)	Median Annual Wage (2014)	Entry Level Education ²¹	HWOL Job Ads ²² (120 days)
Registered Nurses	5,881	\$40.71	\$84,680	Associate's degree	3,919
Nursing Assistants	3,213	\$13.56	\$28,212	Postsecondary non-degree award	323
Medical Assistants	2,719	\$16.73	\$34,791	Postsecondary non-degree award	602
Medical Secretaries	2,375	\$17.83	\$37,086	High school diploma or equivalent	843
Licensed Practical and Licensed Vocational Nurses	2,236	\$23.76	\$49,432	Postsecondary non-degree award	617
Home Health Aides	1,590	\$11.23	\$23,358	Less than high school	280
Personal Care Aides	1,434	\$10.56	\$21,965	Less than high school	825
Receptionists and Information Clerks	1,384	\$13.63	\$28,344	High school diploma or equivalent	775
Dental Assistants	1,345	\$17.97	\$37,385	Postsecondary non-degree award	459
Dental Hygienists	804	\$45.20	\$94,036	Associate's degree	68

Source: California Employment Development Department, Projections of Employment 2012-2022; Occupational Employment Statistics Wage Survey, updated to 3rd Q, 2014; The Conference Board Help Wanted OnLine™ (HWOL) Data Series, 120-day period ending January 12, 2015.

²⁰ Total job openings are the sum of new jobs and replacement job openings.

²¹ U.S. Department of Labor, Bureau of Labor Statistics (BLS) 2012 education levels.

²² 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 Southern Border Economic Market's projected total job openings and median hourly and annual wages. In addition, recent totals of online job advertisements over a 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 ²³ (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	690	\$50.54	\$105,128	783
Physical Therapists	650	\$43.40	\$90,282	324
Family and General Practitioners	478	\$89.91	\$187,015	86
Dentists, General	454	\$71.52	\$148,745	120
Nurse Practitioners	405	\$55.29	\$114,992	84
Requires Some College, Postsecondary N	on-Degree Awa	ırd, or Associat	e's Degree	
Registered Nurses	5,881	\$40.71	\$84,680	3,919
Nursing Assistants	3,213	\$13.56	\$28,212	323
Medical Assistants	2,719	\$16.73	\$34,791	602
Licensed Practical and Licensed Vocational Nurses	2,236	\$23.76	\$49,432	617
Dental Assistants	1,345	\$17.97	\$37,385	459
Requires a High School Diploma or Equiv	alent or Less			
Medical Secretaries	2,375	\$17.83	\$37,086	843
Home Health Aides	1,590	\$11.23	\$23,358	280
Personal Care Aides	1,434	\$10.56	\$21,965	825
Receptionists and Information Clerks	1,384	\$13.63	\$28,344	775
Maids and Housekeeping Cleaners	786	\$10.20	\$21,215	1,035

Source: California Employment Development Department, Projections of Employment 2012-2022; Occupational Employment Statistics Wage Survey, updated to 3rd Q, 2014; The Conference Board Help Wanted OnLine™ (HWOL) Data Series, 120-day period ending January 12, 2015.

²³ 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, and reading comprehension are the most commonly shared skills, followed by social perceptiveness and speaking. The skills and work activities identified for each occupation are from the U.S. Department of Labor's Occupational Information Network (O*NET).

								;	Skil	ls							
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																	
Medical and Health Services Managers		•		•	•		•		•	•	•			•	•	•	
Physical Therapists		•		•	•		•		•		•		•	•	•		•
Family and General Practitioners	•	•	•		•		•				•	•		•	•		•
Dentists, General	•	•	•	•	•		•		•		•				•		•
Nurse Practitioners	•	•			•	•	•		•		•	•		•			•
Requires Some College, Postsecondary Non-Degi	ee .	Awa	ard,	or	Ass	soc	iate	's [Deg	ree							
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	•	•		•	•			•	•		•		•	•	•		
Personal Care Aides	•	•		•	•				•		•		•	•	•		•
Receptionists and Information Clerks		•	•	•	•						•		•	•	•	•	•
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 organizing, planning, and prioritizing work.

												Wo	rk	Α	cti	vit	ies											
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	Documenting/Recording Information	Establishing and Maintaining Interpersonal Relationships	Evaluating Information to Determine Compliance with Standards	Getting Information	ting Subordinates	Handling and Moving Objects		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 Highe	r																											
Medical and Health Services Managers			•		•		•		•			•				•		•	•					•	•			
Physical Therapists		•						•	•				•	•		•	•					•				•		•
Family and General Practitioners	•	•						•	•		•			•		•	•						•					•
Dentists, General		•				•			•	•	•			•		•			•		•							•
Nurse Practitioners		•						•	•		•			•		•	•		•		•							•
Requires Some College, Postsecondar	1 y		n-E	Dec		e .	Αv	var	d,	or	As	SSC	oci	ate	e's	D	eg	ree										
Registered Nurses		•			•				•		•			•		•	•		•				•					•
Nursing Assistants		•			•				•		•		•	•		•	•		•				•					
Medical Assistants		•			•			•	•		•			•			•		•		•							•
Licensed Practical and Licensed Vocational Nurses		•			•			•	•				•	•		•	•		•									•
Dental Assistants		•							•	•	•		•	•		•	•		•									•
Requires a High School Diploma or Eq	uiν	/al	en	t o	r L	.es	s																					
Medical Secretaries		•		•	•				•		•			•		•			•				•					•
Home Health Aides		•			•			•	•				•	•			•		•				•					•
Personal Care Aides		•			•			•	•				•	•		•	•		•			•						
Receptionists and Information Clerks		•						•	•		•			•			•			•	•		•					•
Maids and Housekeeping Cleaners				ΙĪ	•				•			ıΠ	•		•			ΙĪ	•		•	•				ıÏ	•	

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 High	er
Medical and Health Services Managers	 Education Administrators, Elementary and Secondary School Human Resources Managers Management Analysts
Physical Therapists	 Health Specialties Teachers, Postsecondary Nursing Instructors and Teachers, Postsecondary Occupational Therapists
Family and General Practitioners	Nurse PractitionersPharmacistsPhysician Assistants
Dentists, General	AnesthesiologistsOrthodontistsProsthodontists
Nurse Practitioners	Clinical Nurse SpecialistsNaturopathic PhysiciansNurse Midwives
Requires Some College, Postseconda	ry Non-Degree Award, or Associate's Degree
Registered Nurses	 Licensed Practical and Licensed Vocational Nurses Psychiatric Technicians Respiratory Therapists
Nursing Assistants ²⁴	• N/A
Medical Assistants	Dental AssistantsPharmacy TechniciansPsychiatric Technicians
Licensed Practical and Licensed Vocational Nurses	Physical Therapy AssistantsRadiologic TechniciansRespiratory Therapy Technicians
Dental Assistants	 Cardiovascular Technologists and Technicians Endoscopic Technicians Surgical Technologists
Requires a High School Diploma or E	quivalent or Less
Medical Secretaries	 Medical Records and Health Information Technicians Insurance Claims Clerks Receptionists and Information Clerks
Home Health Aides	Occupational Therapy AidesPersonal Care AidesPhysical Therapist Aides
Personal Care Aides	Childcare WorkersHome Health AidesPsychiatric Technicians
Receptionists and Information Clerks	 Bill and Account Collectors Customer Service Representatives Medical Secretaries
Maids and Housekeeping Cleaners	 Dining Room and Cafeteria Attendants and Bartender Helpers Janitors and Cleaners, Except Maids and Housekeeping Cleaners Laundry and Dry-Cleaning Workers

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

²⁴ Currently no related occupations reported by O*NET.

Employer Demand for the Health Care Services Cluster

The following table lists the Southern Border Economic Market employers in the Health Care Services cluster who posted the most job advertisements during the 120-day period ending January 12, 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 ²⁵ (120-day period)	Prior Year Job Advertisements (120-day period)	Numerical Change	Year-Over Percent Change (HWOL Job Advertisements)
Kaiser Permanente	481	172	309	179.7%
Sharp HealthCare	370	411	-41	-10.0%
Children's Hospital San Diego	315	230	85	37.0%
Palomar Pomerado Health	117	91	26	28.6%
Family Health Centers of San Diego	112	90	22	24.4%
CTG - Computer Task	97	0	97	_
Onward Healthcare	88	40	48	120.0%
El Centro Regional	85	88	-3	-3.4%
Fresenius Medical Care	69	76	-7	-9.2%
American Mobile	67	59	8	13.6%
UnitedHealth Group	60	83	-23	-27.7%
Vitas Healthcare	60	4	56	1,400.0%
Brookdale Senior Living	48	6	42	700.0%
The Elizabeth Hospice	48	46	2	4.3%
AccentCare	47	35	12	34.3%
Vista Community Clinic	46	33	13	39.4%
Palomar Medical Center	45	4	41	1,025.0%
Palomar Health	38	7	31	442.9%
Sunrise Senior Living, Inc.	38	37	1	2.7%
DaVita, Inc.	37	22	15	68.2%

Source: The Conference Board Help Wanted OnLine™ (HWOL) Data Series: Period ending January 12, 2015.

²⁵ Totals do not include employers with anonymous job advertisements.

Instructional Programs for the Top Health Care Services Cluster Occupations

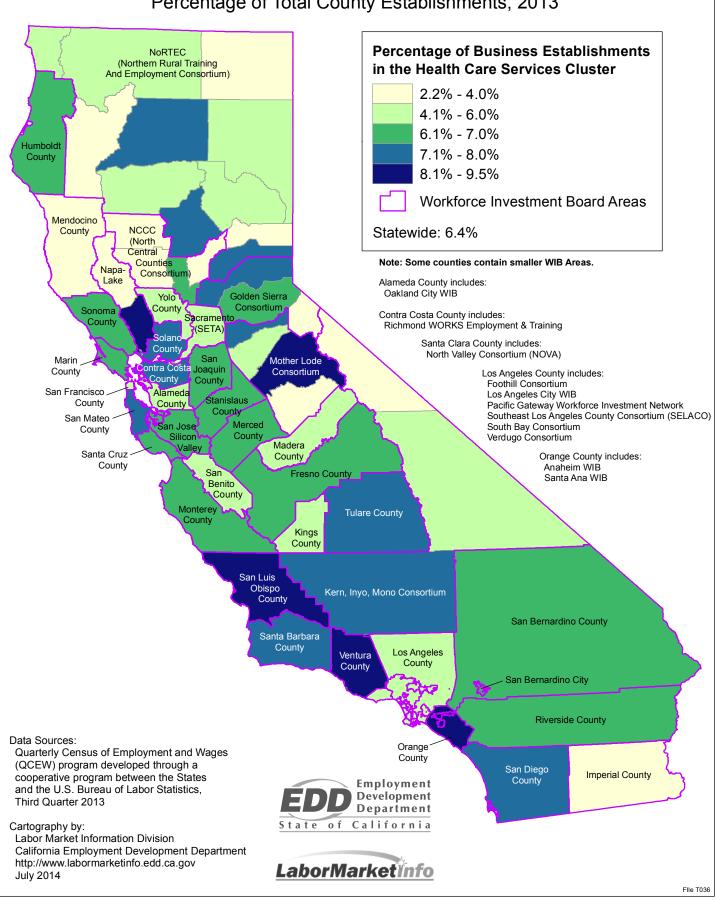
The table below provides examples of instructional programs related to some of the top occupations in the Health Care Services cluster, particularly those that require less than a bachelor's degree. These programs train individuals for occupations throughout many industries and are not limited to the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

Occupations	Classifi	cation of Instructional Program (CIP)	Tax	conomy of Programs (TOP)
	CIP Code	CIP Title	TOP Code	TOP Title
Registered Nurses	51.3801	Registered Nursing/Registered Nurse	123000	Nursing
Troglotorou rurooc	51.3809	Pediatric Nurse/Nursing	123010	Registered Nursing
	51.3813	Clinical Nurse Specialist		
	51.2601	Health Aide	123030	Certified Nurse Assistant
Nursing Assistants	51.3902	Nursing Assistant/Aide and Patient Care Assistant/Aide		
	51.3999	Practical Nursing, Vocational Nursing and Nursing Assistants, Other		
	51.0710	Medical Office Assistant/Specialist	120800	Medical Assisting
Medical Assistants	51.0712	Medical Reception/Receptionist	120801	Clinical Medical Assisting
	51.0713	Medical Insurance Coding Specialist/Coder	120820	Administrative Medical Assisting
Licensed Practical and	51.3901	Licensed Practical/Vocational Nurse Training	123020	Licensed Vocational Nursing
Licensed Vocational Nurses	51.3999	Practical Nursing, Vocational Nursing and Nursing Assistants, Other		
Dental Assistants	51.0601	Dental Assisting/Assistant	124010	Dental Assistant
	51.0710	Medical Office Assistant/Specialist	051420	Medical Office Technology
Medical Secretaries	51.0714	Medical Insurance Specialist/ Medical Biller		
	51.0716	Medical Administrative/Executive Assistant and Medical Secretary		
Home Health Aides	51.2602	Home Health Aide/Home Attendant	123080	Home Health Aide
Personal Care Aides	51.2602	Home Health Aide/Home Attendant	123080	Home Health Aide
Receptionists and Information Clerks	52.0406	Receptionist		

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.

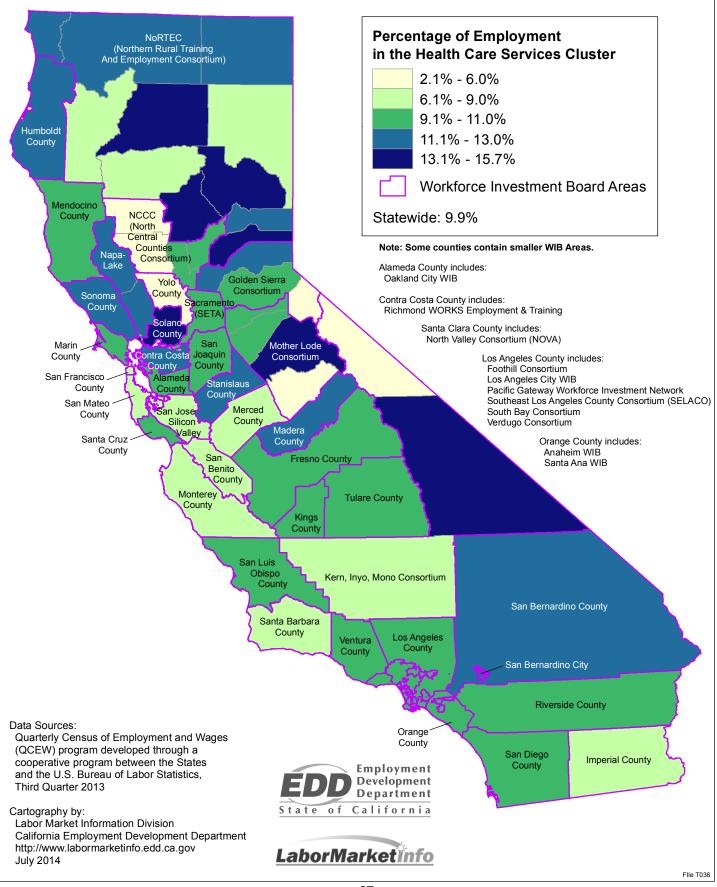
California Health Care Services Cluster

Percentage of Total County Establishments, 2013



California Health Care Services Cluster

Percentage of Total County Employment, 2013





Occupational Analysis: Professional and Technical Services Cluster

Southern Border Economic Market February 2015

Imperial and San Diego Counties



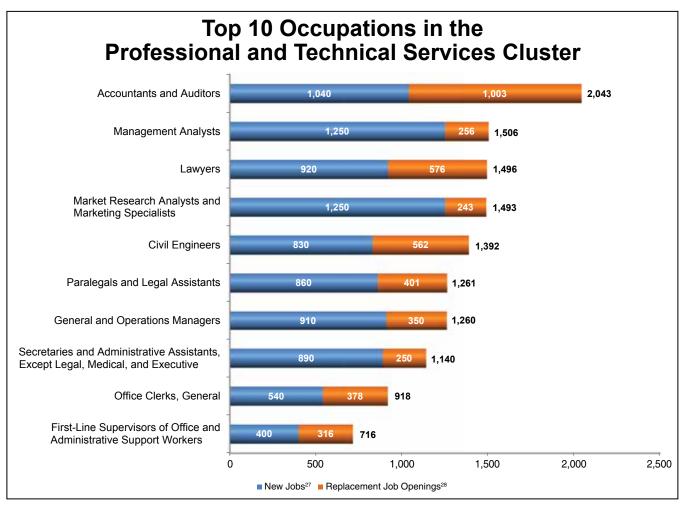


What is the Professional and Technical Services Cluster?

The Professional and Technical Services cluster is a diverse group of seven industries. They are comprised of engineering and architectural firms, law offices, advertising and public relations agencies, and accounting firms. Other activities in this industry cluster include tax preparation and payroll services, environmental consulting, building inspection, and landscape design. Workers employed within this cluster often 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 Professional and Technical Services Cluster

The graph below identifies the top 10 occupations in the Professional and Technical Services cluster, based on the Southern Border Economic Market's new job growth plus replacement openings. In sum, these 10 occupations represent nearly one-third of the 43,079 total job openings projected in this cluster between 2012 and 2022. Moreover, many share the same required skills such as critical thinking, reading comprehension, active listening, speaking, and writing.²⁶



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

²⁶ U.S. Department of Labor's Occupational Information Network (O*NET) at www.onetonline.org.

²⁷ 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.

²⁸ 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 Professional and Technical Services Cluster

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

Occupations	Total Job Openings ²⁹ (2012-2022)	Median Hourly Wage (2014)	Median Annual Wage (2014)	Entry Level Education ³⁰	HWOL Job Ads ³¹ (120 days)
Accountants and Auditors	2,043	\$34.58	\$71,926	Bachelor's degree	2,096
Management Analysts	1,506	\$40.15	\$83,530	Bachelor's degree	891
Lawyers	1,496	\$66.05	\$137,399	Doctoral or professional degree	441
Market Research Analysts and Marketing Specialists	1,493	\$29.56	\$61,495	Bachelor's degree	605
Civil Engineers	1,392	\$44.25	\$92,056	Bachelor's degree	305
Paralegals and Legal Assistants	1,261	\$25.34	\$52,699	Associate's degree	333
General and Operations Managers	1,260	\$49.44	\$102,838	Bachelor's degree	567
Secretaries and Administrative Assistants, Except Legal, Medical, and Executive	1,140	\$18.31	\$38,083	High school diploma or equivalent	1,062
Office Clerks, General	918	\$14.20	\$29,539	High school diploma or equivalent	844
First-Line Supervisors of Office and Administrative Support Workers	716	\$25.37	\$52,780	High school diploma or equivalent	1,746

Source: California Employment Development Department, Projections of Employment 2012-2022; Occupational Employment Statistics Wage Survey, updated to 3rd Q, 2014; The Conference Board Help Wanted OnLine™ (HWOL) Data Series, 120-day period ending January 12, 2015.

²⁹ Total job openings are the sum of new jobs and replacement job openings.

³⁰ U.S. Department of Labor, Bureau of Labor Statistics (BLS) 2012 education levels.

³¹ 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 Professional and Technical 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 Professional and Technical Services cluster. The table includes the Southern Border 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 ³² (2012-2022)	Median Hourly Wage (2014)	Median Annual Wage (2014)	HWOL Job Ads (120 days)
Requires a Bachelor's Degree or Higher				
Accountants and Auditors	2,043	\$34.58	\$71,926	2,096
Management Analysts	1,506	\$40.15	\$83,530	891
Lawyers	1,496	\$66.05	\$137,399	441
Market Research Analysts and Marketing Specialists	1,493	\$29.56	\$61,495	605
Civil Engineers	1,392	\$44.25	\$92,056	305
Requires Some College, Postsecondary	Non-Degree Av	vard, or Associa	ate's Degree	
Paralegals and Legal Assistants	1,261	\$25.34	\$52,699	333
Veterinary Technologists and Technicians	454	\$18.41	\$38,291	103
Electrical and Electronics Engineering Technicians	367	\$29.08	\$60,470	366
Architectural and Civil Drafters	262	\$26.77	\$55,686	84
Computer User Support Specialists	261	\$23.68	\$49,251	1,737
Requires a High School Diploma or Equi	ivalent or Less			
Secretaries and Administrative Assistants, Except Legal, Medical, and Executive	1,140	\$18.31	\$38,083	1,062
Office Clerks, General	918	\$14.20	\$29,539	844
First-Line Supervisors of Office and Administrative Support Workers	716	\$25.37	\$52,780	1,746
Customer Service Representatives	633	\$17.97	\$37,366	2,585
Executive Secretaries and Executive Administrative Assistants	545	\$27.08	\$56,325	1,937

Source: California Employment Development Department, Projections of Employment 2012-2022; Occupational Employment Statistics Wage Survey, updated to 3rd Q, 2014; The Conference Board Help Wanted OnLine™ (HWOL) Data Series, 120-day period ending January 12, 2015.

³² Total job openings are the sum of new jobs and replacement job openings.

Skill Requirements in the Professional and Technical Services Cluster

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

											5	Skil	ls										
Occupations	Active Learning	Active Listening	Complex Problem Solving	Coordination	Critical Thinking	Instructing	Judgment and Decision Making	Learning Strategies	Mathematics	Monitoring	Negotiation	Operations Analysis	Persuasion	Reading Comprehension	Repairing	Service Orientation	Social Perceptiveness	Speaking	Systems Analysis	Systems Evaluation	Time Management	Troubleshooting	Writing
Requires a Bachelor's Degree or Higher																							
Accountants and Auditors ³³	•	•			•		•		•	•				•				•	•				•
Management Analysts	•	•			•		•					•		•				•	•	•			•
Lawyers	•	•	•		•		•				•		•	•				•					•
Market Research Analysts and Marketing Specialists	•	•			•		•			•				•				•	•	•			•
Civil Engineers	•		•		•		•		•	•		•		•					•	•			
Requires Some College, Postsecondary N	lon	-D€	gr	ee	A۷	arc	d, c	or A	lss	ОС	iate	e's	De	gre	е								
Paralegals and Legal Assistants	•	•		•	•					•				•			•	•			•		•
Veterinary Technologists and Technicians	•	•		•	•			•		•				•		•	•	•					
Electrical and Electronics Engineering Technicians ³⁴		•	•		•				•	•				•	•			•				•	•
Architectural and Civil Drafters ³⁵	•		•	•	•		•		•	•				•				•	•				
Computer User Support Specialists	•	•		•	•	•				•				•		•		•					•
Requires a High School Diploma or Equiv	ale	nt	or	Les	ss																		
Secretaries and Administrative Assistants, Except Legal, Medical, and Executive	•	•			•					•				•		•	•	•			•		•
Office Clerks, General		•		•	•					•				•		•	•	•			•		•
First-Line Supervisors of Office and Administrative Support Workers		•		•	•			•		•				•			•	•			•		•
Customer Service Representatives		•		•	•					•			•	•		•	•	•					•
Executive Secretaries and Executive Administrative Assistants		•		•	•					•				•		•	•	•			•		•

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

³³ Skills represent Accountants, a specialty occupation of Accountants and Auditors.

³⁴ Skills represent Electronics Engineering Technicians, a specialty occupation of Electrical and Electronics Engineering Technicians.

³⁵ Skills represent Architectural Drafters, a specialty occupation of Architectural and Civil Drafters.

Work Activities in the Professional and Technical Services Cluster

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

												٧	Voi	rk .	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	Controlling Machines and Processes	Coordinating the Work and Activities of Others	Documenting/Recording Information	Drafting, Laying Out, and Specifying Technical Devices, Parts, and Equipment	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	Organizing, Planning, and Prioritizing Work	Performing Administrative Activities	Performing for or Working Directly with the Public	Processing Information	Provide Consultation and Advice to Others	Repairing and Maintaining Electronic Equipment	Resolving Conflicts and Negotiating with Others	Scheduling Work and Activities	Thinking Creatively	Updating and Using Relevant Knowledge
Requires a Bachelor's Degree or Hi	_	er											•														ij.		
Accountants and Auditors ³⁶	•				•					•	•	•						•		•	•		•						•
Management Analysts	•				•					•		•						•	•	•			•			•	П		•
Lawyers	•			•						•	•	•						•		•			•			•	П		•
Market Research Analysts and Marketing Specialists	•			•	•					•		•			•			•		•			•						•
Civil Engineers				•	•		•			•								•		•				•		•		•	•
Requires Some College, Postsecon	ıda	ry	No	on-	De	gr	ee	A۱	νa	rd,	OI	r A	SS	oc	iat	e's	s D	eg	re	е									
Paralegals and Legal Assistants	•			•	•			•		•	•	•								•			•						•
Veterinary Technologists and Technicians		•			•							•		•	•				•	•		•	•				П	П	•
Electrical and Electronics Engineering Technicians ³⁷					•	•								•	•	•		•	•				•		•				•
Architectural and Civil Drafters ³⁸					•			•	•	•	•				•			•		•								•	•
Computer User Support Specialists					•					•		•			•		•	•		•			•					•	•
Requires a High School Diploma or	r E	qu	iva	lei	nt (or	Le	ss																					
Secretaries and Administrative Assistants, Except Legal, Medical, and Executive					•					•		•			•			•		•	•	•	•						•
Office Clerks, General		•			•			•		•		•					•			•			•				•		•
First-Line Supervisors of Office and Administrative Support Workers			•	•	•		•			•		•	•							•						•			•
Customer Service Representatives				•	•					•		•			•			•		•			•			•			•
Executive Secretaries and Executive Administrative Assistants				•	•			•		•		•			•					•	•	•							•

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

³⁶ Work Activities represent Accountants, a specialty occupation of Accountants and Auditors.

³⁷ Work Activities represent Electronics Engineering Technicians, a specialty occupation of Electrical and Electronics Engineering Technicians.

³⁸ Work Activities represent Architectural Drafters, a specialty occupation of Architectural and Civil Drafters.

Related Occupations for the Professional and Technical Services Cluster

The table below lists top occupations in the Professional and Technical 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 Professional and Technical Services cluster occupations.

Professional and Technical Services Occupations	Related Occupations
Requires a Bachelor's Degree or High	er
Accountants and Auditors	Financial AnalystsPersonal Financial AdvisorsRisk Management Specialists
Management Analysts	Human Resources SpecialistsLogisticiansRegulatory Affairs Managers
Lawyers	 Fraud Examiners, Investigators and Analysts Sales Agents, Financial Services Sales Agents, Securities and Commodities
Market Research Analysts and Marketing Specialists	Financial AnalystsManagement AnalystsRisk Management Specialists
Civil Engineers	Construction ManagersEnergy EngineersLogistics Engineers
Requires Some College, Postseconda	ry Non-Degree Award, or Associate's Degree
Paralegals and Legal Assistants	 Billing, Cost, and Rate Clerks Bookkeeping, Accounting, and Auditing Clerks Executive Secretaries and Executive Administrative Assistants
Veterinary Technologists and Technicians	 Diagnostic Medical Sonographers Medical Assistants Pharmacy Technicians
Electrical and Electronics Engineering Technicians	 Computer, Automated Teller, and Office Machine Repairers Computer User Support Specialists Manufacturing Production Technicians
Architectural and Civil Drafters	 Civil Engineering Technicians Commercial and Industrial Designers Geographic Information Systems Technicians
Computer User Support Specialists	 Computer, Automated Teller, and Office Machine Repairers Electrical Engineering Technicians Web Administrators
Requires a High School Diploma or Ed	quivalent or Less
Secretaries and Administrative Assistants, Except Legal, Medical, and Executive	 Bill and Account Collectors Medical Records and Health Information Technicians Receptionists and Information Clerks
Office Clerks, General	Bill and Account CollectorsMedical SecretariesReceptionists and Information Clerks
First-Line Supervisors of Office and Administrative Support Workers	 Administrative Services Managers First-Line Supervisors of Non-Retail Sales Workers Human Resources Specialists
Customer Service Representatives	 Bill and Account Collectors Hotel, Motel, and Resort Desk Clerks Medical Records and Health Information Technicians
Executive Secretaries and Executive Administrative Assistants	 Bookkeeping, Accounting, and Auditing Clerks Eligibility Interviewers, Government Programs Paralegals and Legal Assistants

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

Employer Demand for the Professional and Technical Services Cluster

The following table lists the Southern Border Economic Market employers in the Professional and Technical Services cluster who posted the most job advertisements during the 120-day period ending January 12, 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.

Professional and Technical Services Cluster Employers	Recent Job Advertisements ³⁹ (120-day period)	Prior Year Job Advertisements (120-day period)	Numerical Change	Year-Over Percent Change (HWOL Job Advertisements)
Booz Allen Hamilton	155	89	66	74.2%
County of San Diego	145	0	145	_
BAE Systems Group	144	99	45	45.5%
Robert Half International	142	90	52	57.8%
Mindlance Inc.	138	0	138	_
General Dynamics	98	193	-95	-49.2%
MedImpact	81	29	52	179.3%
CTG - Computer Task Group	73	2	71	3,550.0%
H&R Block	71	102	-31	-30.4%
Serco Inc.	68	32	36	112.5%
URS Corporation	62	69	-7	-10.1%
Suna Solutions	60	12	48	400.0%
Scientific Research Corporation	53	12	41	341.7%
ADP, Inc.	52	15	37	246.7%
Banfield Pet Hospital	52	20	32	160.0%
TAD PGS, Inc.	47	43	4	9.3%
Deloitte	45	10	35	350.0%
Brickman	45	0	45	_
SRA International, Inc.	41	2	39	1,950.0%
Parsons Corporation	40	37	3	8.1%

Source: The Conference Board Help Wanted OnLine™ (HWOL) Data Series: Period ending January 12, 2015.

³⁹ Totals do not include employers with anonymous job advertisements.

Instructional Programs for the Professional and Technical Services Cluster Occupations

The table below provides examples of instructional programs related to some of the top occupations in the Professional and Technical 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 Professional and Technical 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)		
Cocapanone	CIP Code	CIP Title	TOP Code	TOP Title	
Paralegals and Legal Assistants	22.0302	Legal Assistant/Paralegal	140200	Paralegal	
Veterinary Technologists and Technicians	51.0808	Veterinary/Animal Health Technology/ Technician and Veterinary Assistant	010210	Veterinary Technician (Licensed)	
Electrical and Electronics Engineering Technicians	15.0303	Electrical, Electronic and Communications Engineering Technology/Technician	N/A	N/A	
	15.0305	Telecommunications Technology/ Technician			
	15.1201	Computer Engineering Technology/ Technician			
Architectural and Civil Drafters	15.1301	Drafting and Design Technology/ Technician, General	095300	Drafting Technology	
	15.1303	Architectural Drafting and Architectural CAD/CADD	095310	Architectural Drafting	
	15.1304	Civil Drafting and Civil Engineering CAD/CADD	095320	Civil Drafting	
Computer User Support Specialists	01.0106	Agricultural Business Technology	070820	Computer Support	
	11.1006	Computer Support Specialist			
	51.0709	Medical Office Computer Specialist/ Assistant			
Secretaries and Administrative	52.0401	Administrative Assistant and Secretarial Science, General	051400	Office Technology/Office Computer Applications	
Assistants, Except Legal, Medical, and Executive	52.0402	Executive Assistant/Executive Secretary			
Office Clerks, General	52.0408	General Office Occupations and Clerical Services	N/A	N/A	
First-Line Supervisors of Office and Administrative Support Workers	51.0705	Medical Office Management/ Administration	050630	Management Development and Supervision	
	52.0204	Office Management and Supervision	050970	E-Commerce (business emphasis	
	52.0207	Customer Service Management	051440	Office Management	
Customer Service Representatives	52.0406	Receptionist	051800	Customer Service	
	52.0411	Customer Service Support/Call Center/ Teleservice Operation			
Executive Secretaries and Executive	52.0401	Administrative Assistant and Secretarial Science, General	051400	Office Technology/Office Computer Applications	
Administrative Assistants	52.0402	Executive Assistant/Executive Secretary			

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.

