

Sample Military Occupational Classifications

3C151 - Radio Communications Systems Journeyman (Air Force)

350 - Radioman (Coast Guard)

2581 - Radio Frequency Management Technician (Marines)

RM - Radioman (Navy)

This packet is designed for men and women in Radioman positions leaving the military and entering into civilian occupations. It identifies and describes the current military occupation, and profiles five related civilian occupations that share many of the same skill requirements. These five related occupations are examples and individuals may have skills and interests that would qualify them for many other jobs.

These profiles can be used to:

- Prepare for resume writing and job interviews.
- Help make training decisions.
- Explore new career options in occupations that require many of the same skills.

Each Occupation Profile contains the following information:

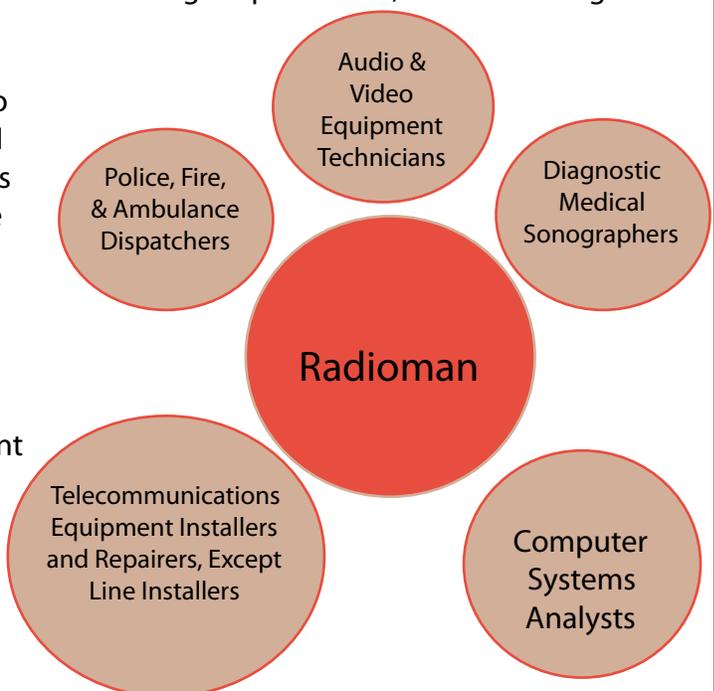
- Profile of current military occupation, with Top 6 important Duties and Top 3 pertinent Knowledges, Skills, Abilities, and Work Activities.
- Profiles of the most closely related civilian occupations identified, with Top 5 important Tasks; Top 3 pertinent Knowledges, Skills, Abilities, and Work Activities; Labor Market Information; Education and Training Requirements; and Job Listings in your area.

Each information packet is designed to answer questions like "how much can I expect to earn on this job?" and "what's the outlook for this type of work in the next ten years?"

Labor Market Information Division
Workforce Services Branch
Employment Development Department



LaborMarketInfo
www.labormarketinfo.edd.ca.gov



Radioman, cont.

Description

Transfer information with state-of-the-art multi-media technology such as fiber optics, digital microwave, and tactical and commercial satellites on a global basis; operate, manage and provide hardware and software support to multi-media automated information systems (AIS) apply diagnostic and restoral techniques utilizing knowledge of electronic and operational system theory; advise on capabilities, limitations, and condition of equipment; implement production control procedures including input/output quality control support; implement and monitor security procedures; perform assigned mission organizational level maintenance and repair of Command, Control, Communications, Computer, and Intelligence Systems.

Important Duties

- Provide telecommunications support to the fleet.
- Information processing using computer terminals observing all applicable security measures.
- Perform conversions and calculations of numbering systems; read and interpret alphanumeric coding schemes.
- Operate electronic intelligence receiving and direction finding systems.
- Communicate with receiving operators in order to exchange transmission instructions.
- Coordinate radio-related aspects of locating and contacting airplanes and ships that are missing or in distress.

Important Knowledge, Skills, Abilities, and Work Activities

Knowledge	Skills
Computers and Electronics	Active Listening
Public Safety and Security	Speaking
Telecommunications	Reading Comprehension
Abilities	Work Activities
Oral Comprehension	Documenting/Recording Information
Oral Expression	Interacting with Computers
Speech Recognition	Making Decisions and Solving Problems

Source: Occupational Information Network ([O*NET](#))

Audio and Video Equipment Technicians

Description

Set up, or set up and operate audio and video equipment including microphones, sound speakers, video screens, projectors, video monitors, recording equipment, connecting wires and cables, sound and mixing boards, and related electronic equipment for concerts, sports events, meetings and conventions, and presentations.

Sample Job Titles

Audio Visual Technician, Production Assistant, Master Control Operator (MCO), Broadcast Engineer, Operations Technician, Audio Technician, Stagehand

Important Tasks

- Install, adjust, and operate electronic equipment to record, edit, and transmit radio and television programs, motion pictures, video conferencing, or multimedia presentations.
- Diagnose and resolve media system problems.
- Switch sources of video input from one camera or studio to another, from film to live programming, or from network to local programming.
- Mix and regulate sound inputs and feeds, or coordinate audio feeds with television pictures.
- Compress, digitize, duplicate, and store audio and video data.

Job Fit

The job of Audio and Video Equipment Technician may appeal to those who enjoy work activities that include practical, hands-on problems and solutions. This occupation also may appeal to those who like searching for facts and figuring out problems mentally.

Education and Training Requirements

Typical Education Level: Postsecondary non-degree award and moderate-term on-the-job training. This is an occupation in which workers can develop skills needed to attain competency after a period of between 1 and 12 months of combined on-the-job experience and informal training.

Certification: Link to America's Career InfoNet Certification Finder at www.careerinfonet.org and type in the keywords "audio and video technician" to find certification programs related to this occupation.

Audio and Video Equipment Technicians, cont.

2013 Median Wages

	Hourly	Annual
California	\$22.68	\$47,170
Los Angeles-Long Beach-Glendale MD	\$24.11	\$50,154
Oxnard-Thousand Oaks-Ventura MSA	\$18.24	\$37,937

Source: [Occupational Employment Statistics Survey 2013 1st Q](#)

Projections of Employment - California Long-Term

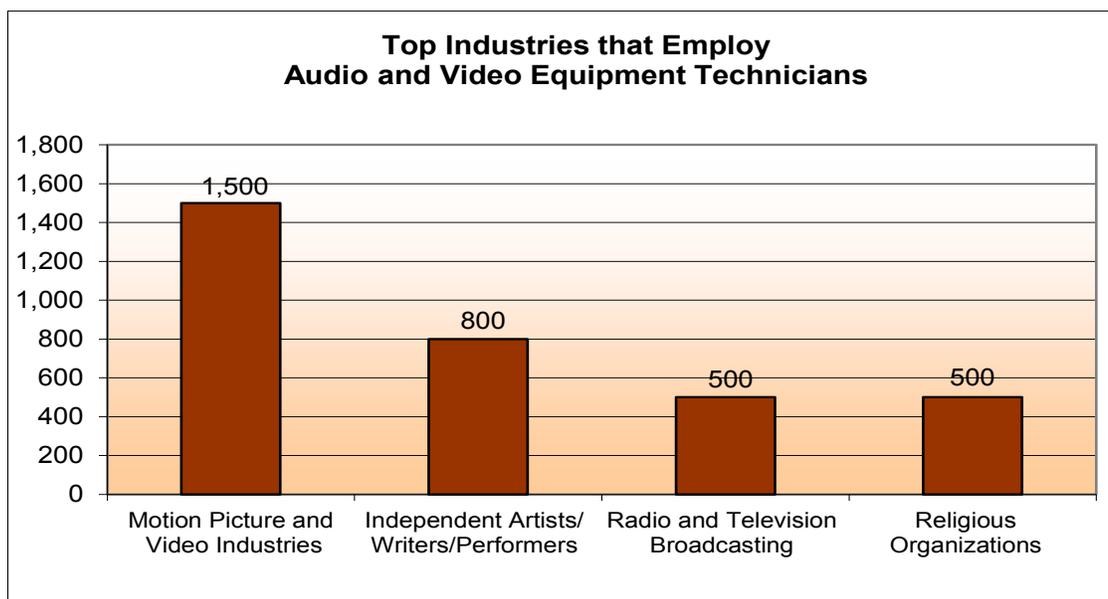
Est. # of Workers (2010-2020)		Numeric Change	Percent Change	Average Annual Job Openings
8,800	10,100	1,300	14.8	370

Projections of Employment - California Short-Term

Est. # of Workers (2012-2014)		Numeric Change	Percent Change	Average Annual Job Openings
9,300	9,800	500	5.4	480

Source: [EDD/LMID Projections of Employment by Occupation](#)

Top Industries that Employ this Occupation



Source: [CA Staffing Patterns](#)

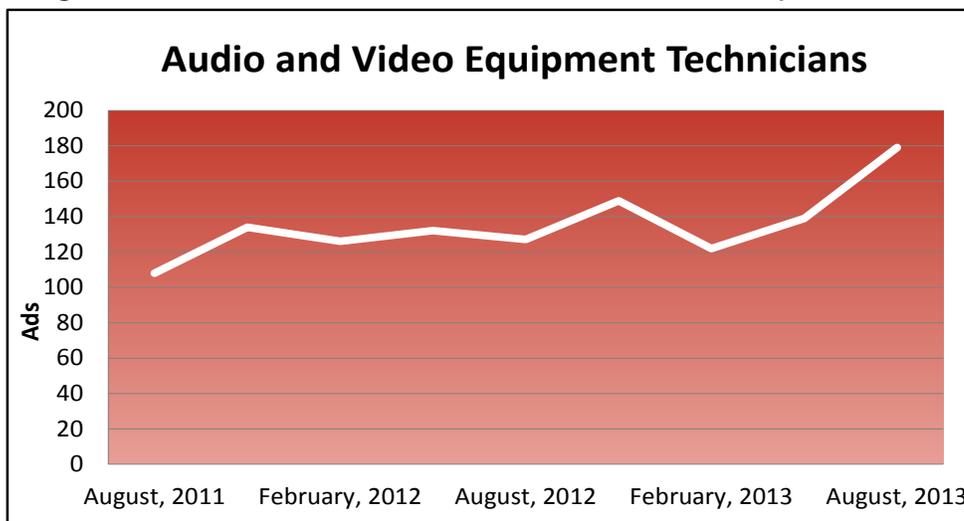
Audio and Video Equipment Technicians, cont.

Recent Job Openings for this Occupation

Month	Total Job Listings	Sample of Employers
July 2013	169	<ul style="list-style-type: none"> • Renaissance Hotels • Time Warner
August 2013	150	<ul style="list-style-type: none"> • Renaissance Hotels • Time Warner
September 2013	130	<ul style="list-style-type: none"> • Renaissance Hotels • FOX

Source: [The Conference Board Help Wanted Online™ \(HWOL\) data series - Hiring Demand Dashboard](#)

Regional 2-Year Online Job Ad Trend for this Occupation



Source: [The Conference Board Help Wanted Online™ \(HWOL\) data series - Hiring Demand Dashboard](#)

Regional Supply and Demand for this Occupation

Estimated Candidate Supply	4,600
Employers Hiring	34
# of Employers Who Have Hired in the Past Four Years	339
Average Posting Period	42 days

Source: [WANTED Analytics](#): Date accessed 9/30/13

Audio and Video Equipment Technicians, cont.

Important Knowledge, Skills, Abilities, and Work Activities

Knowledge	Description
Computers and Electronics	Knowledge of circuit boards, processors, chips, electronic equipment, and computer hardware and software, including applications and programming.
Communications and Media	Knowledge of media production, communication, and dissemination techniques and methods. This includes alternative ways to inform and entertain via written, oral, and visual media.
Telecommunications	Knowledge of transmission, broadcasting, switching, control, and operation of telecommunications systems.
Skill	Description
Critical Thinking	Using logic and reasoning to identify the strengths and weaknesses of alternative solutions, conclusions or approaches to problems.
Monitoring	Monitoring/Assessing performance of yourself, other individuals, or organizations to make improvements or take corrective action.
Operation Monitoring	Watching gauges, dials, or other indicators to make sure a machine is working properly.
Ability	Description
Information Ordering	The ability to arrange things or actions in a certain order or pattern according to a specific rule or set of rules (e.g., patterns of numbers, letters, words, pictures, mathematical operations).
Near Vision	The ability to see details at close range (within a few feet of the observer).
Oral Comprehension	The ability to listen to and understand information and ideas presented through spoken words and sentences.
Work Activity	Description
Interacting With Computers	Using computers and computer systems (including hardware and software) to program, write software, set up functions, enter data, or process information.
Identifying Objects, Actions, and Events	Identifying information by categorizing, estimating, recognizing differences or similarities, and detecting changes in circumstances or events.
Getting Information	Observing, receiving, and otherwise obtaining information from all relevant sources.

Source: Occupational Information Network ([O*NET](#))

Computer Systems Analysts

Description

Analyze science, engineering, business, and other data processing problems to implement and improve computer systems. Analyze user requirements, procedures, and problems to automate or improve existing systems and review computer system capabilities, workflow, and scheduling limitations. May analyze or recommend commercially available software.

Sample Job Titles

Systems Analyst, Programmer Analyst, Business Systems Analyst, Computer Systems Analyst, Computer Systems Consultant, Computer Analyst, Information Systems Analyst (ISA), Applications Analyst, Business Analyst, Systems Engineer

Important Tasks

- Expand or modify system to serve new purposes or improve work flow.
- Test, maintain, and monitor computer programs and systems, including coordinating the installation of computer programs and systems.
- Develop, document and revise system design procedures, test procedures, and quality standards.
- Provide staff and users with assistance solving computer related problems, such as malfunctions and program problems.
- Review and analyze computer printouts and performance indicators to locate code problems, and correct errors by correcting codes.

Job Fit

The job of Computer Systems Analyst will appeal to those who enjoy activities that involve working with ideas and that require an extensive amount of thinking. The Computer Systems Analyst occupation satisfies those with investigative interests. Investigative occupations involve searching for facts and figuring out problems.

Education and Training Requirements

Typical Education Level: Bachelor's degree.

Certification: Link to America's Career InfoNet Certification Finder at www.careerinfonet.org and type in the keywords "computer analyst" to find certification programs related to this occupation.

Computer Systems Analysts, cont.

2013 Median Wages

	Hourly	Annual
California	\$41.82	\$86,987
Los Angeles-Long Beach-Glendale MD	\$42.59	\$88,601
Oxnard-Thousand Oaks-Ventura MSA	\$41.63	\$86,584

Source: [Occupational Employment Statistics Survey 2013 1st Q](#)

Projections of Employment - California Long-Term

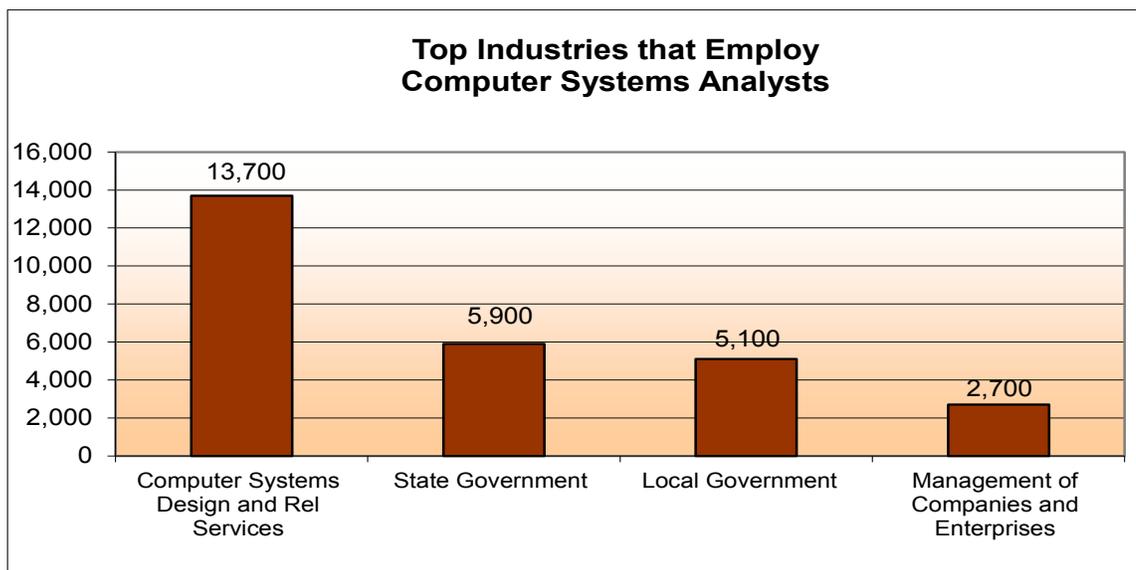
Est. # of Workers (2010-2020)		Numeric Change	Percent Change	Average Annual Job Openings
61,200	72,100	10,900	17.8	2,250

Projections of Employment - California Short-Term

Est. # of Workers (2012-2014)		Numeric Change	Percent Change	Average Annual Job Openings
64,800	68,200	3,400	5.2	2,790

Source: [EDD/LMID Projections of Employment by Occupation](#)

Top Industries that Employ this Occupation



Source: [CA Staffing Patterns](#)

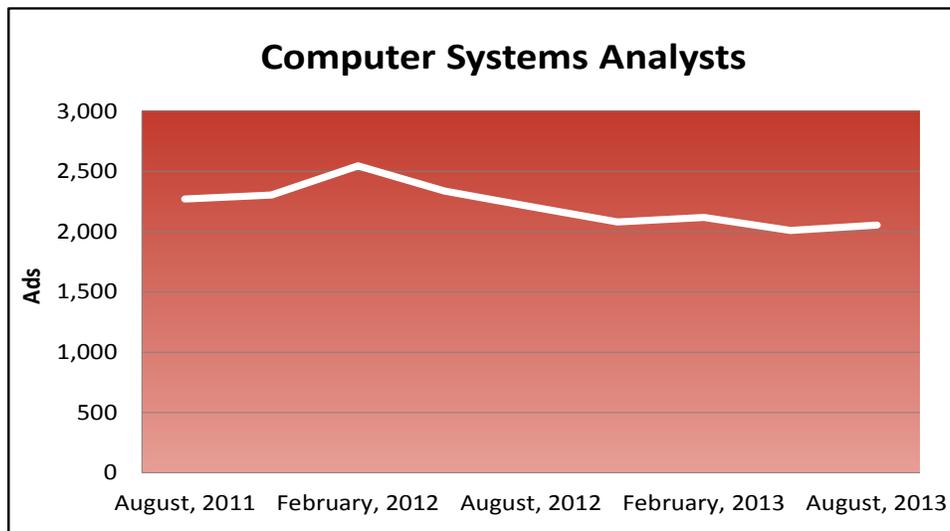
Computer Systems Analysts, cont.

Recent Job Openings for this Occupation

Month	Total Job Listings	Sample of Employers
July 2013	2,095	<ul style="list-style-type: none"> • IBM • Kaiser Permanente
August 2013	2,145	<ul style="list-style-type: none"> • IBM • Kforce Professional Staffing, Inc.
September 2013	2,046	<ul style="list-style-type: none"> • IBM • Randstad

Source: [The Conference Board Help Wanted Online™ \(HWOL\) data series - Hiring Demand Dashboard](#)

Regional 2-Year Online Job Ad Trend for this Occupation



Source: [The Conference Board Help Wanted Online™ \(HWOL\) data series - Hiring Demand Dashboard](#)

Regional Supply and Demand for this Occupation

Estimated Candidate Supply	19,000
Employers Hiring	468
# of Employers Who Have Hired in the Past Four Years	3,767
Average Posting Period	45 days

Source: [WANTED Analytics](#): Date accessed 9/30/13

Computer Systems Analysts, cont.

Important Knowledge, Skills, Abilities, and Work Activities

Knowledge	Description
Computers and Electronics	Knowledge of circuit boards, processors, chips, electronic equipment, and computer hardware and software, including applications and programming.
English Language	Knowledge of the structure and content of the English language including the meaning and spelling of words, rules of composition, and grammar.
Customer and Personal Service	Knowledge of principles and processes for providing customer and personal services. This includes customer needs assessment, meeting quality standards for services, and evaluation of customer satisfaction.
Skill	Description
Critical Thinking	Using logic and reasoning to identify the strengths and weaknesses of alternative solutions, conclusions or approaches to problems.
Active Listening	Giving full attention to what other people are saying, taking time to understand the points being made, asking questions as appropriate, and not interrupting at inappropriate times.
Reading Comprehension	Understanding written sentences and paragraphs in work related documents.
Ability	Description
Information Ordering	The ability to arrange things or actions in a certain order or pattern according to a specific rule or set of rules (e.g., patterns of numbers, letters, words, pictures, mathematical operations).
Oral Comprehension	The ability to listen to and understand information and ideas presented through spoken words and sentences.
Problem Sensitivity	The ability to tell when something is wrong or is likely to go wrong. It does not involve solving the problem, only recognizing there is a problem.
Work Activity	Description
Interacting With Computers	Using computers and computer systems (including hardware and software) to program, write software, set up functions, enter data, or process information.
Making Decisions and Solving Problems	Analyzing information and evaluating results to choose the best solution and solve problems.
Processing Information	Compiling, coding, categorizing, calculating, tabulating, auditing, or verifying information or data.

Source: Occupational Information Network ([O*NET](#))

Diagnostic Medical Sonographers

Description

Produce ultrasonic recordings of internal organs for use by physicians.

Sample Job Titles

Sonographer, Ultrasonographer, Ultrasound Technologist, Ultrasound Technician, Registered Diagnostic Medical Sonographer (RDMS), Cardiac Sonographer

Important Tasks

- Provide sonogram and oral or written summary of technical findings to physician for use in medical diagnosis.
- Decide which images to include, looking for differences between healthy and pathological areas.
- Operate ultrasound equipment to produce and record images of the motion, shape and composition of blood, organs, tissues and bodily masses such as fluid accumulations.
- Observe screen during scan to ensure that image produced is satisfactory for diagnostic purposes, making adjustments to equipment as required.
- Select appropriate equipment settings and adjust patient positions to obtain the best sites and angles.

Job Fit

The job of Diagnostic Medical Sonographer may appeal to those who enjoy activities that involve working with ideas and that require an extensive amount of thinking. This occupation involves searching for facts and figuring out problems. Results-oriented individuals who are independent workers and like to make their own decisions should enjoy this type of job.

Education and Training Requirements

Typical Education Level: Associate degree.

Certification: Link to America's Career InfoNet Certification Finder at www.careerinfonet.org and type in the keyword "diagnostic" to find certification programs related to this occupation.

Diagnostic Medical Sonographers, cont.

2013 Median Wages

	Hourly	Annual
California	\$40.97	\$85,226
Los Angeles-Long Beach-Glendale MD	\$36.55	\$76,037
Oxnard-Thousand Oaks-Ventura MSA	\$31.44	\$65,407

Source: [Occupational Employment Statistics Survey 2013 1st Q](#)

Projections of Employment - California Long-Term

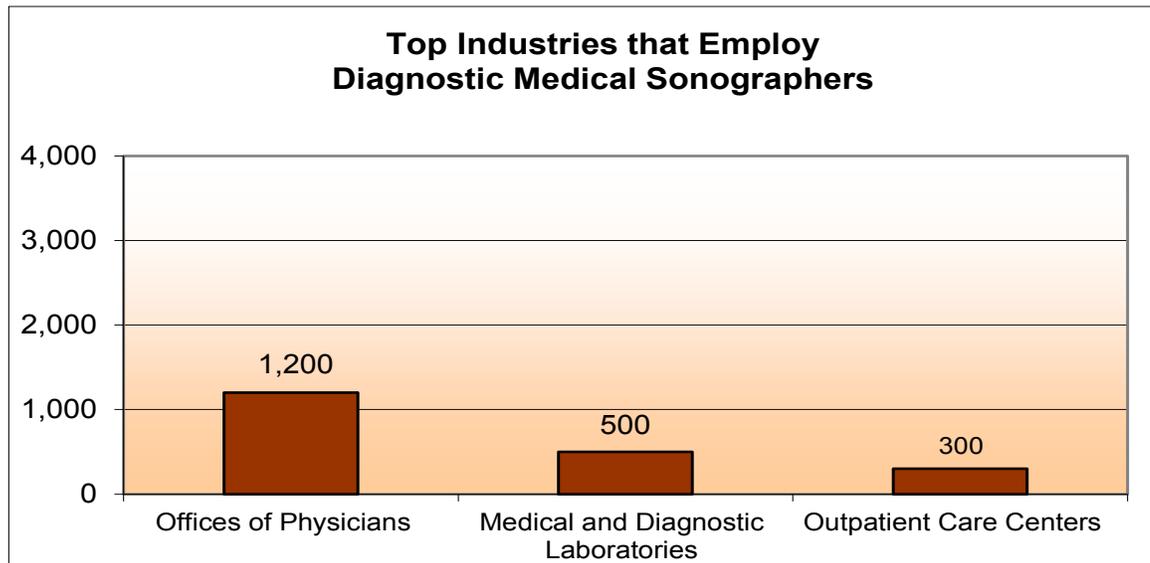
Est. # of Workers (2010-2020)		Numeric Change	Percent Change	Average Annual Job Openings
5,300	7,300	2,000	37.7	280

Projections of Employment - California Short-Term

Est. # of Workers (2012-2014)		Numeric Change	Percent Change	Average Annual Job Openings
5,400	5,600	200	3.7	170

Source: [EDD/LMID Projections of Employment by Occupation](#)

Top Industries that Employ this Occupation



Source: [CA Staffing Patterns](#)

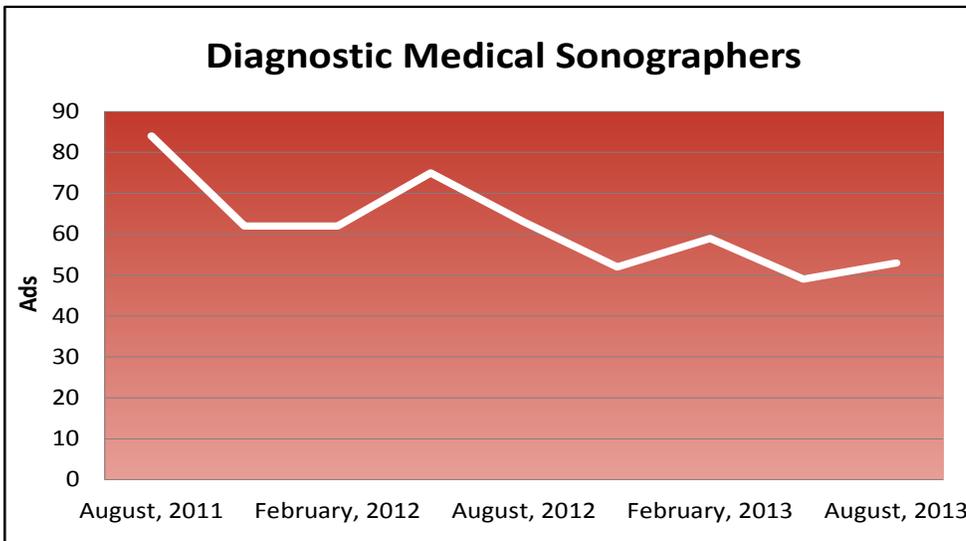
Diagnostic Medical Sonographers, cont.

Recent Job Openings for this Occupation

Month	Total Job Listings	Sample of Employers
July 2013	42	<ul style="list-style-type: none"> • CHW-Catholic Healthcare West • VALLEY PRESBYTERIAN
August 2013	61	<ul style="list-style-type: none"> • Kaiser Permanente • Memorial Health
September 2013	65	<ul style="list-style-type: none"> • Memorial Health • Club Staffing, Inc.

Source: [The Conference Board Help Wanted Online™ \(HWOL\) data series - Hiring Demand Dashboard](#)

Regional 2-Year Online Job Ad Trend for this Occupation



Source: [The Conference Board Help Wanted Online™ \(HWOL\) data series - Hiring Demand Dashboard](#)

Regional Supply and Demand for this Occupation

Estimated Candidate Supply	2,100
Employers Hiring	22
# of Employers Who Have Hired in the Past Four Years	150
Average Posting Period	56 days

Source: [WANTED Analytics](#): Date accessed 9/30/13

Diagnostic Medical Sonographers, cont.

Important Knowledge, Skills, Abilities, and Work Activities

Knowledge	Description
Customer and Personal Service	Knowledge of principles and processes for providing customer and personal services. This includes customer needs assessment, meeting quality standards for services, and evaluation of customer satisfaction.
Medicine and Dentistry	Knowledge of the information and techniques needed to diagnose and treat human injuries, diseases, and deformities. This includes symptoms, treatment alternatives, drug properties and interactions, and preventive health-care measures.
Physics	Knowledge and prediction of physical principles, laws, their interrelationships, and applications to understanding fluid, material, and atmospheric dynamics, and mechanical, electrical, atomic and sub-atomic structures and processes.
Skill	Description
Speaking	Talking to others to convey information effectively.
Active Listening	Giving full attention to what other people are saying, taking time to understand the points being made, asking questions as appropriate, and not interrupting at inappropriate times.
Reading Comprehension	Understanding written sentences and paragraphs in work related documents.
Ability	Description
Oral Comprehension	The ability to listen to and understand information and ideas presented through spoken words and sentences.
Oral Expression	The ability to communicate information and ideas in speaking so others will understand.
Near Vision	The ability to see details at close range (within a few feet of the observer).
Work Activity	Description
Assisting and Caring for Others	Providing personal assistance, medical attention, emotional support, or other personal care to others such as coworkers, customers, or patients.
Updating and Using Relevant Knowledge	Keeping up-to-date technically and applying new knowledge to your job.
Getting Information	Observing, receiving, and otherwise obtaining information from all relevant sources.

Source: Occupational Information Network ([O*NET](#))

Police, Fire, and Ambulance Dispatchers

Description

Operate radio, telephone, or computer equipment at emergency response centers. Receive reports from the public of crimes, disturbances, fires, and medical or police emergencies. Relay information to law enforcement and emergency response personnel. May maintain contact with caller until responders arrive.

Sample Job Titles

Communications Operator, Public Safety Dispatcher, Communications Officer, Police Dispatcher, Telecommunicator, Communications Specialist, 911 Dispatcher

Important Tasks

- Question callers to determine their locations, and the nature of their problems to determine type of response needed.
- Receive incoming telephone or alarm system calls regarding emergency and non-emergency police and fire service, emergency ambulance service, information and after hours calls for departments within a city.
- Determine response requirements and relative priorities of situations, and dispatch units in accordance with established procedures.
- Record details of calls, dispatches, and messages.

Job Fit

The job of Dispatcher may appeal to those who enjoy following set procedures and routines, working with data and details, and following a clear line of authority. Service-oriented individuals who value working for supportive management that stands behind employees should enjoy this type of job.

Education and Training Requirements

Typical Education Level: High school diploma or the equivalent and moderate-term on-the-job training. This is an occupation in which workers can develop skills needed to attain competency after a period of between 1 and 12 months of combined on-the-job experience and informal training.

Certification: California requires Police, Fire, and Ambulance Dispatchers to pass the 120-hour POST-certified Public Safety Dispatchers' Basic Course. Link to America's Career InfoNet Certification Finder at www.careerinfonet.org and type in the keywords "police dispatcher" to find certification programs related to this occupation.

Police, Fire, and Ambulance Dispatchers, cont.

2013 Median Wages

	Hourly	Annual
California	\$26.98	\$56,135
Los Angeles-Long Beach-Glendale MD	\$25.73	\$53,509
Oxnard-Thousand Oaks-Ventura MSA	\$27.51	\$57,222

Source: [Occupational Employment Statistics Survey 2013 1st Q](#)

Projections of Employment - California Long-Term

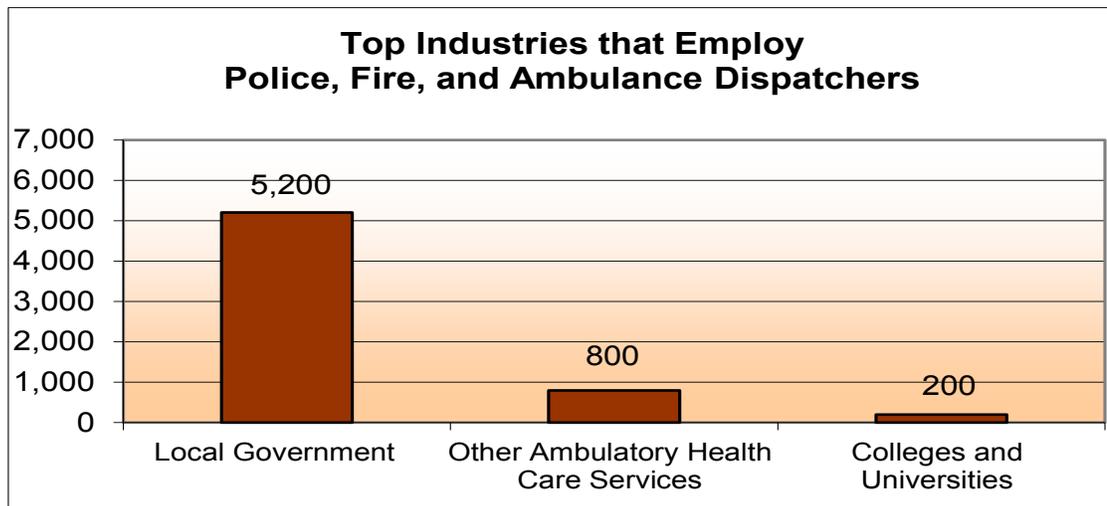
Est. # of Workers (2010-2020)		Numeric Change	Percent Change	Average Annual Job Openings
6,300	7,200	900	14.3	210

Projections of Employment - California Short-Term

Est. # of Workers (2012-2014)		Numeric Change	Percent Change	Average Annual Job Openings
6,200	6,100	-100	-1.6	100

Source: [EDD/LMID Projections of Employment by Occupation](#)

Top Industries that Employ this Occupation



Source: [CA Staffing Patterns](#)

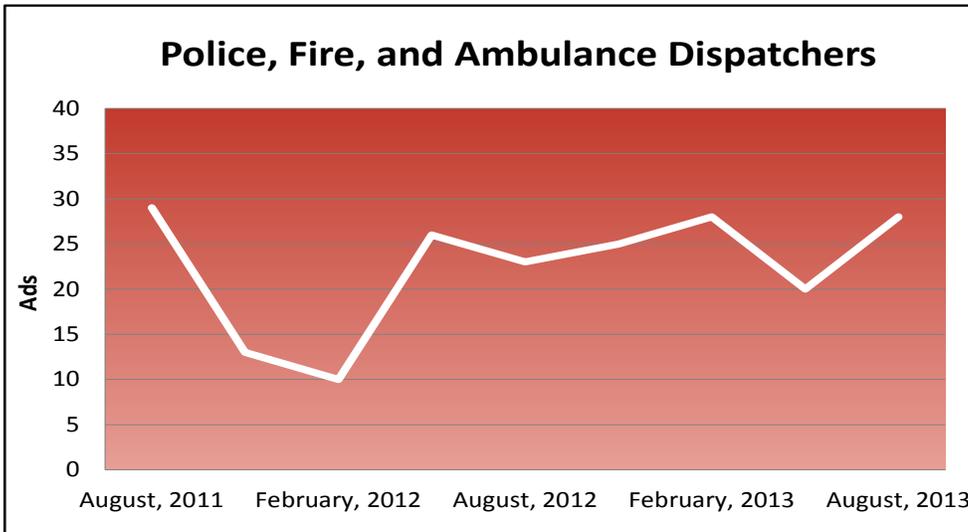
Police, Fire, and Ambulance Dispatchers, cont.

Recent Job Openings for this Occupation

Month	Total Job Listings	Sample of Employers
July 2013	27	<ul style="list-style-type: none"> Federal Reserve Bank Memorial Health
August 2013	22	<ul style="list-style-type: none"> Federal Reserve Bank State of California
September 2013	29	<ul style="list-style-type: none"> State of California Federal Reserve Bank

Source: [The Conference Board Help Wanted Online™ \(HWOL\) data series - Hiring Demand Dashboard](#)

Regional 2-Year Online Job Ad Trend for this Occupation



Source: [The Conference Board Help Wanted Online™ \(HWOL\) data series - Hiring Demand Dashboard](#)

Regional Supply and Demand for this Occupation

Estimated Candidate Supply	1,700
Employers Hiring	14
# of Employers Who Have Hired in the Past Four Years	96
Average Posting Period	44 days

Source: [WANTED Analytics: Date accessed 9/30/13](#)

Police, Fire, and Ambulance Dispatchers, cont.

Important Knowledge, Skills, Abilities, and Work Activities

Knowledge	Description
Customer and Personal Service	Knowledge of principles and processes for providing customer and personal services. This includes customer needs assessment, meeting quality standards for services, and evaluation of customer satisfaction.
Telecommunications	Knowledge of transmission, broadcasting, switching, control, and operation of telecommunications systems.
Public Safety and Security	Knowledge of relevant equipment, policies, procedures, and strategies to promote effective local, state, or national security operations for the protection of people, data, property, and institutions.
Skill	Description
Active Listening	Giving full attention to what other people are saying, taking time to understand the points being made, asking questions as appropriate, and not interrupting at inappropriate times.
Speaking	Talking to others to convey information effectively.
Coordination	Adjusting actions in relation to others' actions.
Ability	Description
Speech Recognition	The ability to identify and understand the speech of another person.
Oral Comprehension	The ability to listen to and understand information and ideas presented through spoken words and sentences.
Oral Expression	The ability to communicate information and ideas in speaking so others will understand.
Work Activity	Description
Getting Information	Observing, receiving, and otherwise obtaining information from all relevant sources.
Documenting/Recording Information	Entering, transcribing, recording, storing, or maintaining information in written or electronic/magnetic form.
Interacting With Computers	Using computers and computer systems (including hardware and software) to program, write software, set up functions, enter data, or process information.

Source: Occupational Information Network ([O*NET](#))

Telecommunications Equipment Installers and Repairers, Except Line Installers

Description

Install, set-up, rearrange, or remove switching, distribution, routing, and dialing equipment used in central offices or headends. Service or repair telephone, cable television, Internet, and other communications equipment on customers' property.

Sample Job Titles

Central Office Technician, Install / Repair Technician, Service Technician, Installer, Telecommunications Technician, Customer Service Technician (CST)

Important Tasks

- Note differences in wire and cable colors so that work can be performed correctly.
- Test circuits and components of malfunctioning telecommunications equipment to isolate sources of malfunctions, using test meters, circuit diagrams, polarity probes, and other hand tools.
- Test repaired, newly installed, or updated equipment to ensure that it functions properly and conforms to specifications, using test equipment and observation.
- Drive crew trucks to and from work areas.
- Inspect equipment on a regular basis in order to ensure proper functioning.

Job Fit

The job of Telecommunications Equipment Installer and Repairer may appeal to those who enjoy work activities that include practical, hands-on problems and solutions. This occupation also may appeal to those who like searching for facts and figuring out problems mentally.

Education and Training Requirements

Typical Education Level: Postsecondary non-degree award and moderate-term on-the-job training. This is an occupation in which workers can develop skills needed to attain competency after a period of between 1 and 12 months of combined on-the-job experience and informal training.

Certification: Link to America's Career InfoNet Certification Finder at www.careerinfonet.org and type in the keywords "telecommunications equipment installer" to find certification programs related to this occupation.

Telecommunications Equipment Installers and Repairers, Except Line Installers, cont.

2013 Median Wages

	Hourly	Annual
California	\$30.31	\$63,048
Los Angeles-Long Beach-Glendale MD	\$29.48	\$61,318
Oxnard-Thousand Oaks-Ventura MSA	\$29.93	\$62,253

Source: [Occupational Employment Statistics Survey 2013 1st Q](#)

Projections of Employment - California Long-Term

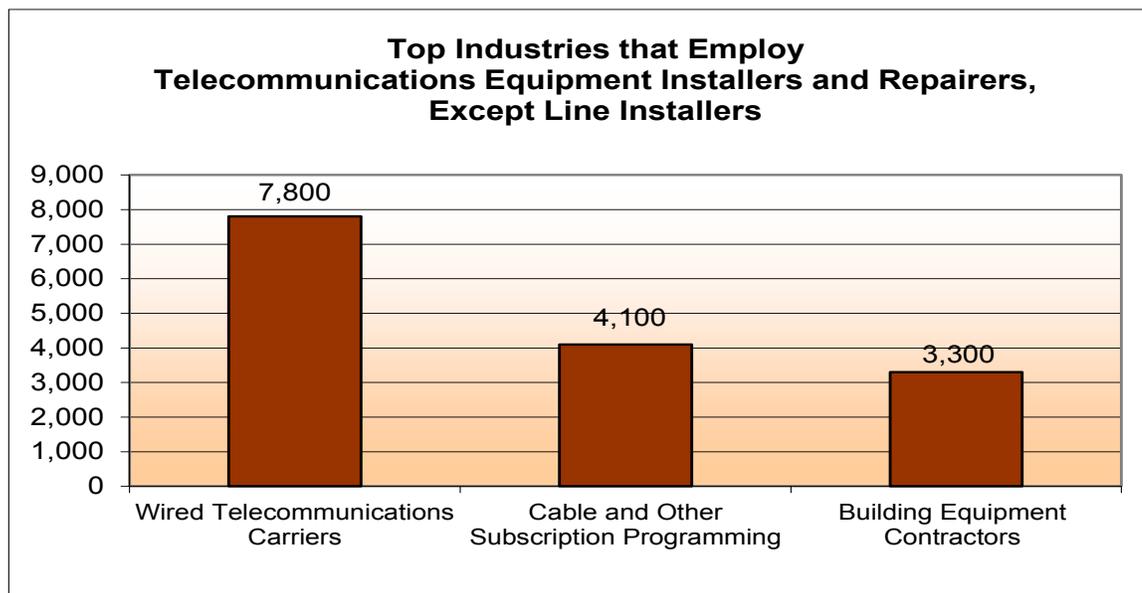
Est. # of Workers (2010-2020)	Numeric Change	Percent Change	Average Annual Job Openings
28,800	32,300	12.2	820

Projections of Employment - California Short-Term

Est. # of Workers (2012-2014)	Numeric Change	Percent Change	Average Annual Job Openings
27,900	27,800	-0.4	470

Source: [EDD/LMID Projections of Employment by Occupation](#)

Top Industries that Employ this Occupation



Source: [CA Staffing Patterns](#)

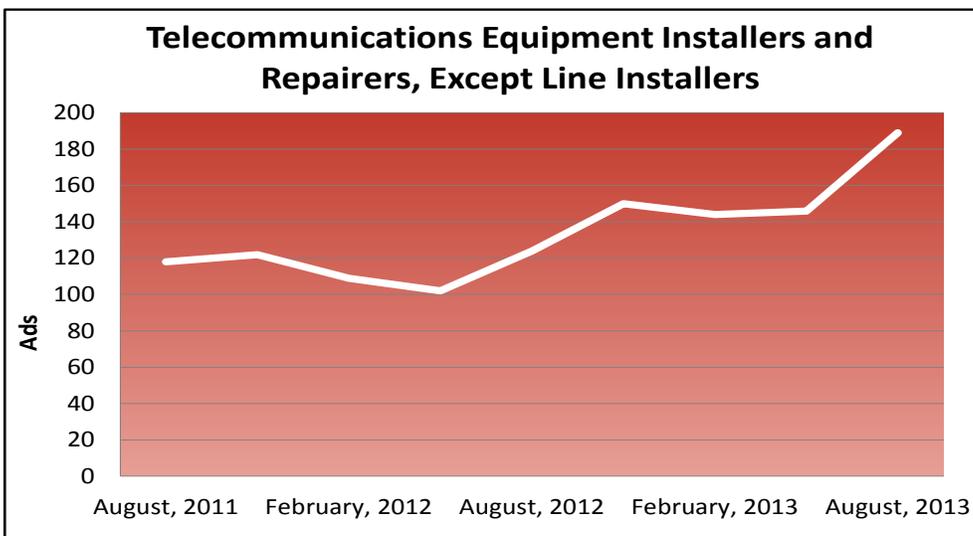
Telecommunications Equipment Installers and Repairers, Except Line Installers, cont.

Recent Job Openings for this Occupation

Month	Total Job Listings	Sample of Employers
July 2013	183	<ul style="list-style-type: none"> • AT&T • Charter Communications
August 2013	215	<ul style="list-style-type: none"> • AT&T • Charter Communications
September 2013	168	<ul style="list-style-type: none"> • Charter Communications • AT&T

Source: [The Conference Board Help Wanted Online™ \(HWOL\) data series - Hiring Demand Dashboard](#)

Regional 2-Year Online Job Ad Trend for this Occupation



Source: [The Conference Board Help Wanted Online™ \(HWOL\) data series - Hiring Demand Dashboard](#)

Regional Supply and Demand for this Occupation

Estimated Candidate Supply	12,000
Employers Hiring	36
# of Employers Who Have Hired in the Past Four Years	255
Average Posting Period	47 days

Source: [WANTED Analytics: Date accessed 9/30/13](#)

Telecommunications Equipment Installers and Repairers, Except Line Installers, cont.

Important Knowledge, Skills, Abilities, and Work Activities

Knowledge	Description
Telecommunications	Knowledge of transmission, broadcasting, switching, control, and operation of telecommunications systems.
Computers and Electronics	Knowledge of circuit boards, processors, chips, electronic equipment, and computer hardware and software, including applications and programming.
Customer and Personal Service	Knowledge of principles and processes for providing customer and personal services. This includes customer needs assessment, meeting quality standards for services, and evaluation of customer satisfaction.
Skill	Description
Operation Monitoring	Watching gauges, dials, or other indicators to make sure a machine is working properly.
Quality Control Analysis	Conducting tests and inspections of products, services, or processes to evaluate quality or performance.
Troubleshooting	Determining causes of operating errors and deciding what to do about it.
Ability	Description
Finger Dexterity	The ability to make precisely coordinated movements of the fingers of one or both hands to grasp, manipulate, or assemble very small objects.
Manual Dexterity	The ability to quickly move your hand, your hand together with your arm, or your two hands to grasp, manipulate, or assemble objects.
Problem Sensitivity	The ability to tell when something is wrong or is likely to go wrong. It does not involve solving the problem, only recognizing there is a problem.
Work Activity	Description
Communicating with Persons Outside Organization	Communicating with people outside the organization, representing the organization to customers, the public, government, and other external sources. This information can be exchanged in person, in writing, or by telephone or e-mail.
Updating and Using Relevant Knowledge	Keeping up-to-date technically and applying new knowledge to your job.
Documenting/Recording Information	Entering, transcribing, recording, storing, or maintaining information in written or electronic/magnetic form.

Source: Occupational Information Network ([O*NET](#))

Electrical Specialist

Sample Military Occupational Classifications

- 54231 - Electric Power Line Specialist (Air Force)
- 21R - Interior Electrician (Army)
- 270 - Electrician's Mate (Coast Guard)
- 1142 - Electrical Equipment Repair Specialist (Marines)

This packet is designed for men and women in Electrical Specialist positions leaving the military and entering into civilian occupations. It identifies and describes the current military occupation, and profiles five related civilian occupations that share many of the same skill requirements. These five related occupations are examples and individuals may have skills and interests that would qualify them for many other jobs.

These profiles can be used to:

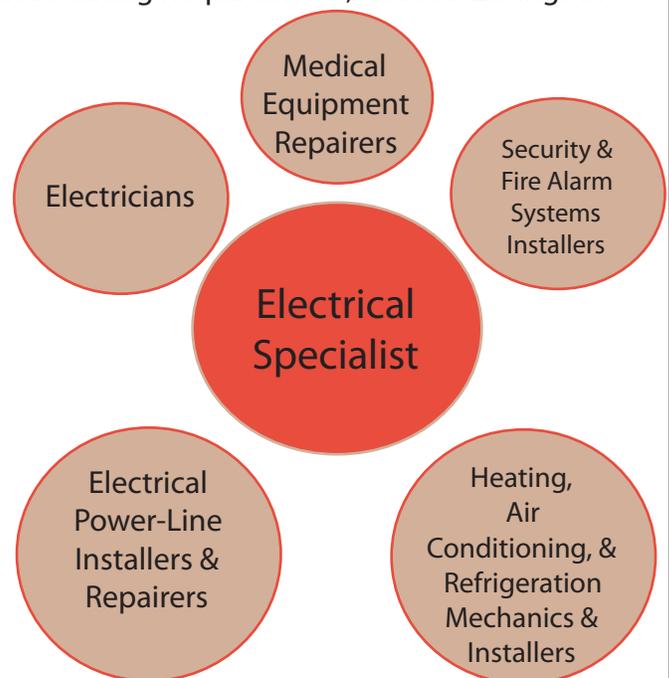
- Prepare for resume writing and job interviews.
- Help make training decisions.
- Explore new career options in occupations that require many of the same skills.

Each Occupation Profile contains the following information:

- Profile of current military occupation, with Top 6 important Duties and Top 3 pertinent Knowledges, Skills, Abilities, and Work Activities.
- Profiles of the most closely related civilian occupations identified, with Top 5 important Tasks; Top 3 pertinent Knowledges, Skills, Abilities, and Work Activities; Labor Market Information; Education and Training Requirements; and Job Listings in your area.

Each information packet is designed to answer questions like "how much can I expect to earn on this job?" and "what's the outlook for this type of work in the next ten years?"

Labor Market Information Division
Workforce Services Branch
Employment Development Department



Electrical Specialist, cont.

Description

Repair electric motors, electronic modules, motor control circuits, operate and repair mobile electric power generators, troubleshooting equipment electrical circuits, and repair electrical systems on all engineering equipment. Repairs include soldering connections and replacing wires, malfunctioning apparatus, and components, including some faulty mechanical, hydraulic and pneumatic parts on equipment. These technicians also troubleshoot digital/logic components/circuits and make organizational and intermediate level repairs on the electrical systems of engineer and general supply equipment.

Important Duties

- Diagnose electrical problems.
- Make repairs following manuals, schematic diagrams, blue prints, and other specifications using hand tools, power tools, and electrical and electronic test equipment.
- Measure velocity, horsepower, revolutions per minute (rpm), amperage, circuitry, and voltage of units or parts to diagnose problems, using ammeters, voltmeters, wattmeters, and other testing devices.
- Inspect electrical connections, wiring, relays, charging resistance boxes, and storage batteries, following wiring diagrams.
- Repair and adjust equipment, machines, and defective components, replacing worn parts such as gaskets and seals in watertight electrical equipment.
- Read blueprints, wiring diagrams, schematic drawings, and engineering instructions for assembling electronics units, applying knowledge of electronic theory and components.

Important Knowledge, Skills, Abilities, and Work Activities

Knowledge	Skills
Mechanical	Repairing
Engineering and Technology	Troubleshooting
Computers and Electronics	Quality Control Analysis
Abilities	Work Activities
Finger Dexterity	Repairing and Maintaining Electronic Equipment
Manual Dexterity	Making Decisions and Solving Problems
Problem Sensitivity	Getting Information

Source: Occupational Information Network ([O*NET](#))

Electrical Power-Line Installers and Repairers

Description

Install or repair cables or wires used in electrical power or distribution systems. May erect poles and light or heavy duty transmission towers.

Sample Job Titles

Lineman, Journeyman Lineman, Electrical Lineworker, Lineworker, Power Lineman

Important Tasks

- Adhere to safety practices and procedures, such as checking equipment regularly and erecting barriers around work areas.
- Open switches or attach grounding devices to remove electrical hazards from disturbed or fallen lines or to facilitate repairs.
- Climb poles or use truck-mounted buckets to access equipment.
- Place insulating or fireproofing materials over conductors and joints.
- Install, maintain, and repair electrical distribution and transmission systems, including conduits, cables, wires, and related equipment, such as transformers, circuit breakers, and switches.

Job Fit

The job of Electrical-Power Line Installers and Repairer may appeal to those who enjoy working on projects that require practical, hands-on problems and solutions. This occupation may interest those who are attentive to detail and thorough in completing work tasks. In addition, those who like being outside, working closely with others in a team may enjoy this occupation.

Education and Training Requirements

Typical Education Level: High school diploma or the equivalent and long-term on-the-job training. This is an occupation in which workers can develop skills needed to attain competency after a period of 12 months or more of combined on-the-job experience and informal training.

Certification: Link to America's Career InfoNet Certification Finder at www.careerinfonet.org and type in the keywords "electrical power line installer" to find certification programs related to this occupation.

Electrical Power-Line Installers and Repairers, cont.

2013 Median Wages

	Hourly	Annual
California	\$45.05	\$93,709
Los Angeles-Long Beach-Glendale MD	\$44.53	\$92,613
Oxnard-Thousand Oaks-Ventura MSA	\$47.20	\$98,173

Source: [Occupational Employment Statistics Survey 2013 1st Q](#)

Projections of Employment - California Long-Term

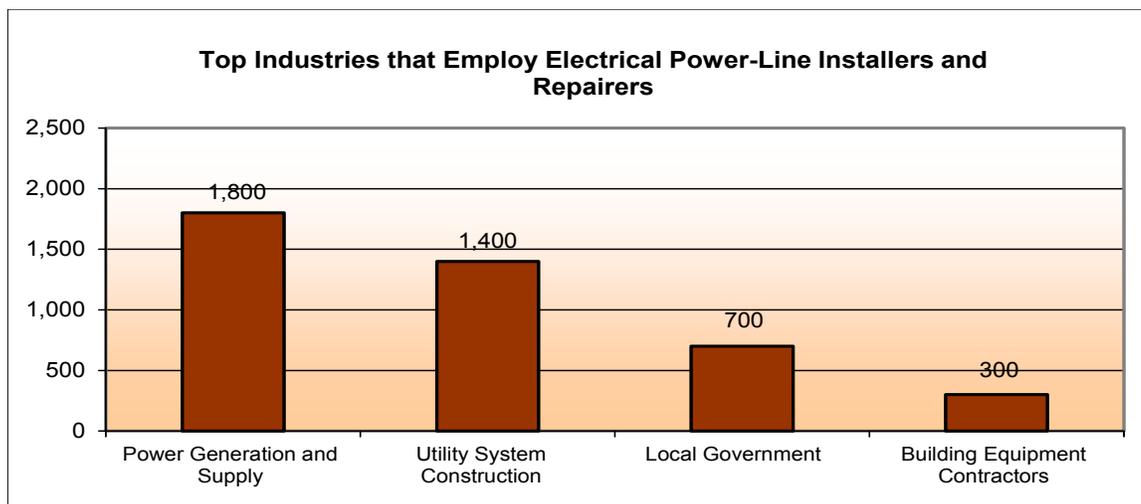
Est. # of Workers (2010-2020)		Numeric Change	Percent Change	Average Annual Job Openings
6,400	7,600	1,200	18.8	350

Projections of Employment - California Short-Term

Est. # of Workers (2012-2014)		Numeric Change	Percent Change	Average Annual Job Openings
6,800	7,200	400	5.9	390

Source: [EDD/LMID Projections of Employment by Occupation](#)

Top Industries that Employ this Occupation



Source: [CA Staffing Patterns](#)

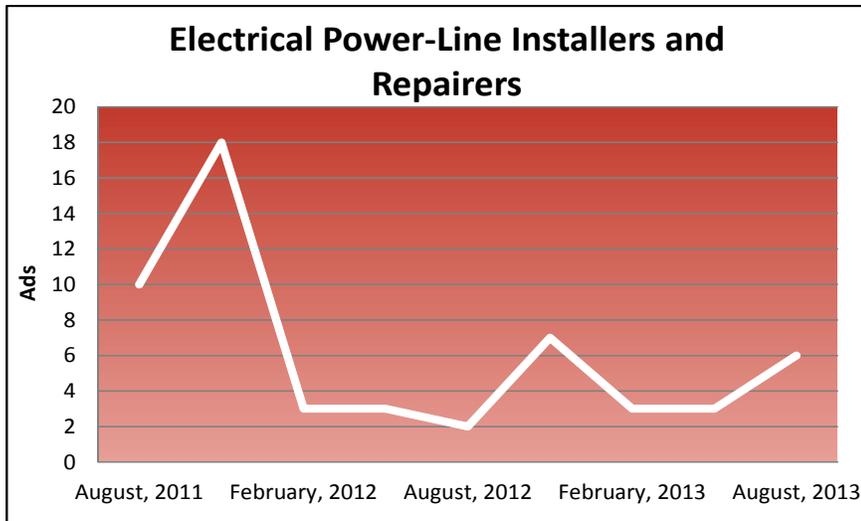
Electrical Power-Line Installers and Repairers, cont.

Recent Job Openings for this Occupation

Month	Total Job Listings	Sample of Employers
July 2013	5	<ul style="list-style-type: none"> • United Site Services • National Construction Rentals
August 2013	5	<ul style="list-style-type: none"> • United Site Services • National Construction Rentals
September 2013	5	<ul style="list-style-type: none"> • National Construction Rentals • Los Angeles County Metro Transportation Authority

Source: [The Conference Board Help Wanted Online™ \(HWOL\) data series - Hiring Demand Dashboard](#)

Regional 2-Year Online Job Ad Trend for this Occupation



Source: [The Conference Board Help Wanted Online™ \(HWOL\) data series - Hiring Demand Dashboard](#)

Regional Supply and Demand for this Occupation

Estimated Candidate Supply	1,700
Employers Hiring	2
# of Employers Who Have Hired in the Past Four Years	28
Average Posting Period	45 days

Source: [WANTED Analytics](#): Date accessed 9/30/13

Electrical Power-Line Installers and Repairers, cont.

Important Knowledge, Skills, Abilities, and Work Activities

Knowledge	Description
Customer and Personal Service	Knowledge of principles and processes for providing customer and personal services. This includes customer needs assessment, meeting quality standards for services, and evaluation of customer satisfaction.
Mechanical	Knowledge of machines and tools, including their designs, uses, repair, and maintenance.
Building and Construction	Knowledge of materials, methods, and the tools involved in the construction or repair of houses, buildings, or other structures such as highways and roads.
Skill	Description
Active Listening	Giving full attention to what other people are saying, taking time to understand the points being made, asking questions as appropriate, and not interrupting at inappropriate times.
Monitoring	Monitoring/Assessing performance of yourself, other individuals, or organizations to make improvements or take corrective action.
Critical Thinking	Using logic and reasoning to identify the strengths and weaknesses of alternative solutions, conclusions or approaches to problems.
Ability	Description
Near Vision	The ability to see details at close range (within a few feet of the observer).
Problem Sensitivity	The ability to tell when something is wrong or is likely to go wrong. It does not involve solving the problem, only recognizing there is a problem.
Arm-Hand Steadiness	The ability to keep your hand and arm steady while moving your arm or while holding your arm and hand in one position.
Work Activity	Description
Handling and Moving Objects	Using hands and arms in handling, installing, positioning, and moving materials, and manipulating things.
Operating Vehicles, Mechanized Devices, or Equipment	Running, maneuvering, navigating, or driving vehicles or mechanized equipment, such as forklifts, passenger vehicles, aircraft, or water craft.
Controlling Machines and Processes	Using either control mechanisms or direct physical activity to operate machines or processes (not including computers or vehicles).

Source: Occupational Information Network ([O*NET](#))

Electricians

Description

Install, maintain, and repair electrical wiring, equipment, and fixtures. Ensure that work is in accordance with relevant codes. May install or service street lights, intercom systems, or electrical control systems.

Sample Job Titles

Maintenance Electrician, Journeyman Electrician, Inside Wireman, Control Electrician, Electrician Technician, Industrial Electrician, Journeyman Wireman

Important Tasks

- Maintain current electrician's license or identification card to meet government regulations.
- Connect wires to circuit breakers, transformers, or other components.
- Repair or replace wiring, equipment, and fixtures, using hand tools and power tools.
- Assemble, install, test, and maintain electrical or electronic wiring, equipment, appliances, apparatus, and fixtures, using hand and power tools.
- Test electrical systems and continuity of circuits in electrical wiring, equipment, and fixtures, using testing devices such as ohmmeters, voltmeters, and oscilloscopes, to ensure compatibility and safety of system.

Job Fit

The job of Electrician may appeal to those who enjoy activities that involve practical, hands-on problems and solutions. Electrician occupations usually involve technical or mechanical activities.

Education and Training Requirements

Typical Education Level: High school diploma or the equivalent and an apprenticeship. This is an occupation in which workers can develop skills needed to attain competency after a period of between three to five years of occupation-specific technical instruction and on-the-job training.

Certification: California requires certification for Electricians that work for general electrical contractors. Link to America's Career InfoNet Certification Finder at www.careerinfonet.org and type in the keyword "electrician" to find more certification programs related to this occupation.

Electricians, cont.

2013 Median Wages

	Hourly	Annual
California	\$29.72	\$61,807
Los Angeles-Long Beach-Glendale MD	\$31.75	\$66,044
Oxnard-Thousand Oaks-Ventura MSA	\$29.98	\$62,372

Source: [Occupational Employment Statistics Survey 2013 1st Q](#)

Projections of Employment - California Long-Term

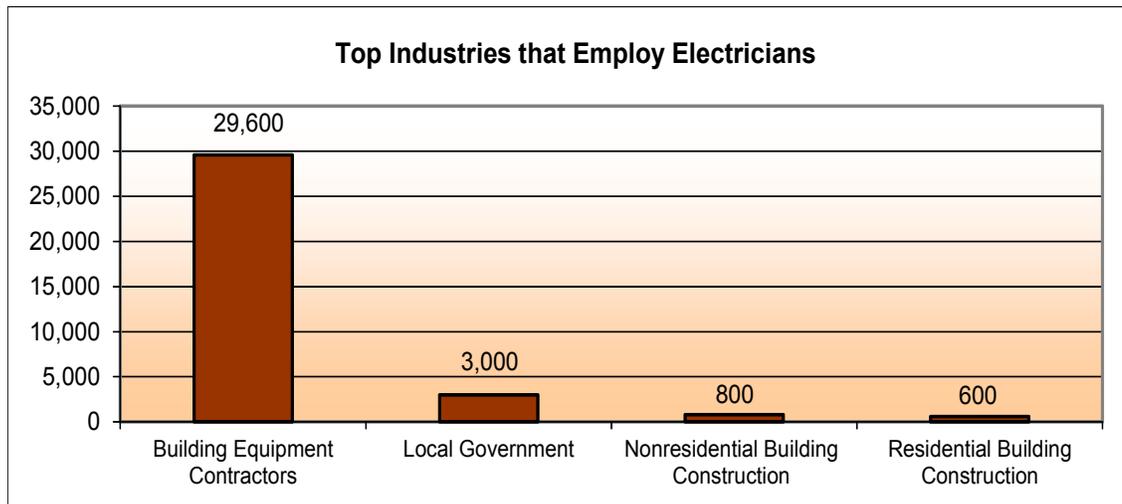
Est. # of Workers (2010-2020)		Numeric Change	Percent Change	Average Annual Job Openings
47,200	54,600	7,400	15.7	2,010

Projections of Employment - California Short-Term

Est. # of Workers (2012-2014)		Numeric Change	Percent Change	Average Annual Job Openings
50,900	55,300	4,400	8.6	3,520

Source: [EDD/LMID Projections of Employment by Occupation](#)

Top Industries that Employ this Occupation



Source: [CA Staffing Patterns](#)

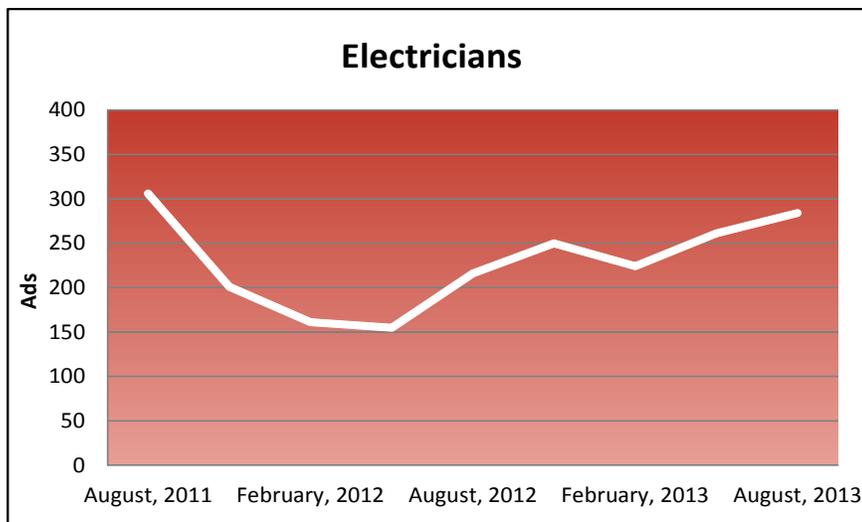
Electricians, cont.

Recent Job Openings for this Occupation

Month	Total Job Listings	Sample of Employers
July 2013	267	<ul style="list-style-type: none"> • United Site Services • National Construction Rentals
August 2013	283	<ul style="list-style-type: none"> • Verengo • Aerotek
September 2013	259	<ul style="list-style-type: none"> • Verengo • Aerotek

Source: [The Conference Board Help Wanted Online™ \(HWOL\) data series - Hiring Demand Dashboard](#)

Regional 2-Year Online Job Ad Trend for this Occupation



Source: [The Conference Board Help Wanted Online™ \(HWOL\) data series - Hiring Demand Dashboard](#)

Regional Supply and Demand for this Occupation

Estimated Candidate Supply	22,000
Employers Hiring	58
# of Employers Who Have Hired in the Past Four Years	400
Average Posting Period	41 days

Source: [WANTED Analytics](#): Date accessed: 9/30/13

Electricians, cont.

Important Knowledge, Skills, Abilities, and Work Activities

Knowledge	Description
Mechanical	Knowledge of machines and tools, including their designs, uses, repair, and maintenance.
Building and Construction	Knowledge of materials, methods, and the tools involved in the construction or repair of houses, buildings, or other structures such as highways and roads.
Mathematics	Knowledge of arithmetic, algebra, geometry, calculus, statistics, and their applications.
Skill	Description
Troubleshooting	Determining causes of operating errors and deciding what to do about it.
Repairing	Repairing machines or systems using the needed tools.
Active Listening	Giving full attention to what other people are saying, taking time to understand the points being made, asking questions as appropriate, and not interrupting at inappropriate times.
Ability	Description
Problem Sensitivity	The ability to tell when something is wrong or is likely to go wrong. It does not involve solving the problem, only recognizing there is a problem.
Manual Dexterity	The ability to quickly move your hand, your hand together with your arm, or your two hands to grasp, manipulate, or assemble objects.
Visual Color Discrimination	The ability to match or detect differences between colors, including shades of color and brightness.
Work Activity	Description
Getting Information	Observing, receiving, and otherwise obtaining information from all relevant sources.
Inspecting Equipment, Structures, or Material	Inspecting equipment, structures, or materials to identify the cause of errors or other problems or defects.
Making Decisions and Solving Problems	Analyzing information and evaluating results to choose the best solution and solve problems.

Source: Occupational Information Network ([O*NET](#))

Heating, Air Conditioning, and Refrigeration Mechanics and Installers

Description

Install or repair heating, central air conditioning, or refrigeration systems, including oil burners, hot-air furnaces, and heating stoves.

Sample Job Titles

Service Technician, HVAC Service Technician, HVAC Installer, Refrigeration Mechanic, Refrigeration Technician, HVAC / R Technician

Important Tasks

- Observe and test system operation, using gauges and instruments.
- Test electrical circuits and components for continuity, using electrical test equipment.
- Test pipe or tubing joints and connections for leaks, using pressure gauge or soap-and-water solution.
- Join pipes or tubing to equipment and to fuel, water, or refrigerant source, to form complete circuit.
- Adjust valves according to specifications and charge system with proper type of refrigerant by pumping the specified gas or fluid into the system.

Job Fit

The job of Heating, Air Conditioning, and Refrigeration Mechanic and Installer will appeal to those who enjoy activities that involve practical, hands-on problems and solutions. This occupation involves technical or mechanical activities and often requires working outside.

Education and Training Requirements

Typical Education Level: Postsecondary non-degree award and long-term on-the-job training. This is an occupation in which workers can develop skills needed to attain competency after a period of 12 months or more of combined on-the-job experience and informal training.

Certification: Link to America's Career InfoNet Certification Finder at www.careerinfonet.org and type in the keyword "heating" to find certification programs related to this occupation.

Heating, Air Conditioning, and Refrigeration Mechanics and Installers, cont.

2013 Median Wages

	Hourly	Annual
California	\$24.71	\$51,386
Los Angeles-Long Beach-Glendale MD	\$28.85	\$53,762
Oxnard-Thousand Oaks-Ventura MSA	\$18.40	\$38,269

Source: [Occupational Employment Statistics Survey 2013 1st Q](#)

Projections of Employment - California Long-Term

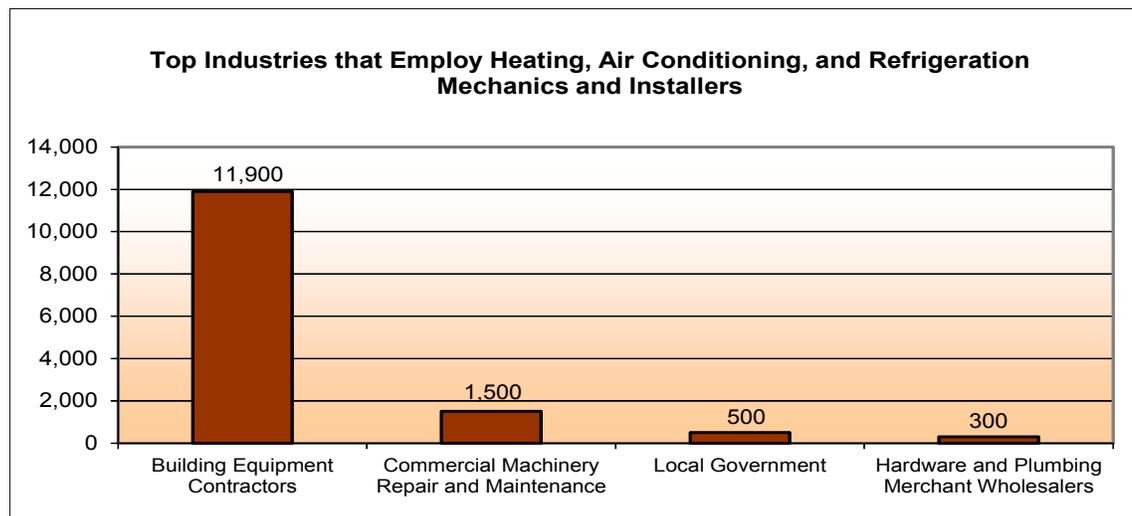
Est. # of Workers (2010-2020)		Numeric Change	Percent Change	Average Annual Job Openings
20,700	26,300	5,600	27.1	920

Projections of Employment - California Short-Term

Est. # of Workers (2012-2014)		Numeric Change	Percent Change	Average Annual Job Openings
22,300	24,000	1,700	7.6	1,240

Source: [EDD/LMID Projections of Employment by Occupation](#)

Top Industries that Employ this Occupation



Source: [CA Staffing Patterns](#)

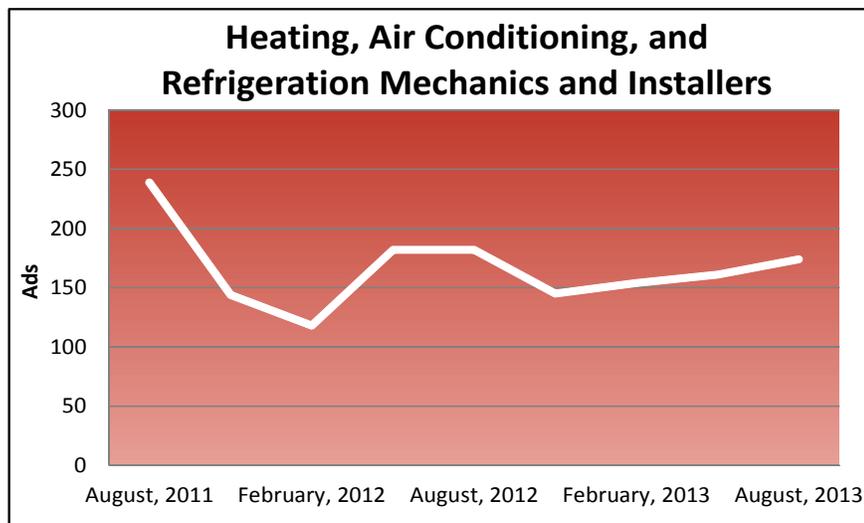
Heating, Air Conditioning, and Refrigeration Mechanics and Installers, cont.

Recent Job Openings for this Occupation

Month	Total Job Listings	Sample of Employers
July 2013	208	<ul style="list-style-type: none"> Johnson Controls, Inc. Sears Holding Corporation
August 2013	164	<ul style="list-style-type: none"> Johnson Controls, Inc. Sears Holding Corporation
September 2013	183	<ul style="list-style-type: none"> Verengo Aerotek

Source: [The Conference Board Help Wanted Online™ \(HWOL\) data series - Hiring Demand Dashboard](#)

Regional 2-Year Online Job Ad Trend for this Occupation



Source: [The Conference Board Help Wanted Online™ \(HWOL\) data series - Hiring Demand Dashboard](#)

Regional Supply and Demand for this Occupation

Estimated Candidate Supply	6,600
Employers Hiring	37
# of Employers Who Have Hired in the Past Four Years	369
Average Posting Period	44 days

Source: [WANTED Analytics](#); Date accessed 9/30/13

Heating, Air Conditioning, and Refrigeration Mechanics and Installers, cont.

Important Knowledge, Skills, Abilities, and Work Activities

Knowledge	Description
Mechanical	Knowledge of machines and tools, including their designs, uses, repair, and maintenance.
Customer and Personal Service	Knowledge of principles and processes for providing customer and personal services. This includes customer needs assessment, meeting quality standards for services, and evaluation of customer satisfaction.
Mathematics	Knowledge of arithmetic, algebra, geometry, calculus, statistics, and their applications.
Skill	Description
Installation	Installing equipment, machines, wiring, or programs to meet specifications.
Troubleshooting	Determining causes of operating errors and deciding what to do about it.
Repairing	Repairing machines or systems using the needed tools.
Ability	Description
Near Vision	The ability to see details at close range (within a few feet of the observer).
Problem Sensitivity	The ability to tell when something is wrong or is likely to go wrong. It does not involve solving the problem, only recognizing there is a problem.
Finger Dexterity	The ability to make precisely coordinated movements of the fingers of one or both hands to grasp, manipulate, or assemble very small objects.
Work Activity	Description
Repairing and Maintaining Mechanical Equipment	Servicing, repairing, adjusting, and testing machines, devices, moving parts, and equipment that operate primarily on the basis of mechanical (not electronic) principles.
Performing General Physical Activities	Performing physical activities that require considerable use of your arms and legs and moving your whole body, such as climbing, lifting, balancing, walking, stooping, and handling of materials.
Making Decisions and Solving Problems	Analyzing information and evaluating results to choose the best solution and solve problems.

Source: Occupational Information Network ([O*NET](#))

Medical Equipment Repairers

Description

Test, adjust, or repair biomedical or electromedical equipment.

Sample Job Titles

Biomedical Equipment Technician (BMET), Biomedical Technician, Bio Medical Technician, Service Technician, Biomedical Electronics Technician, Biomedical Engineering Technician (BMET), Dental Equipment Technician, X-ray Service Engineer, Certified Biomedical Equipment Technician (CBET), Coil Repair Technician

Important Tasks

- Test and calibrate components and equipment following manufacturers' manuals and troubleshooting techniques, using hand tools, power tools and measuring devices.
- Keep records of maintenance, repair, and required updates of equipment.
- Inspect and test malfunctioning medical and related equipment following manufacturers' specifications, using test and analysis instruments.
- Disassemble malfunctioning equipment and remove, repair and replace defective parts such as motors, clutches or transformers.
- Perform preventive maintenance or service such as cleaning, lubricating and adjusting equipment.

Job Fit

The job of Medical Equipment Repairer may appeal to those who enjoy work activities that include practical, hands-on problems and solutions. This occupation also may appeal to those who like searching for facts and figuring out problems mentally.

Education and Training Requirements

Typical Education Level: Associate degree and moderate-term on-the-job training. This is an occupation in which workers can develop skills needed to attain competency after a period of between 1 and 12 months of combined on-the-job experience and informal training.

Certification: Link to America's Career InfoNet Certification Finder at www.careerinfonet.org and type in the keywords "medical equipment" to find certification programs related to this occupation.

Medical Equipment Repairers, cont.

2013 Median Wages

	Hourly	Annual
California	\$26.16	\$54,401
Los Angeles-Long Beach-Glendale MD	\$24.92	\$61,518
Oxnard-Thousand Oaks-Ventura MSA	\$20.18	\$41,988

Source: [Occupational Employment Statistics Survey 2013 1st Q](#)

Projections of Employment - California Long-Term

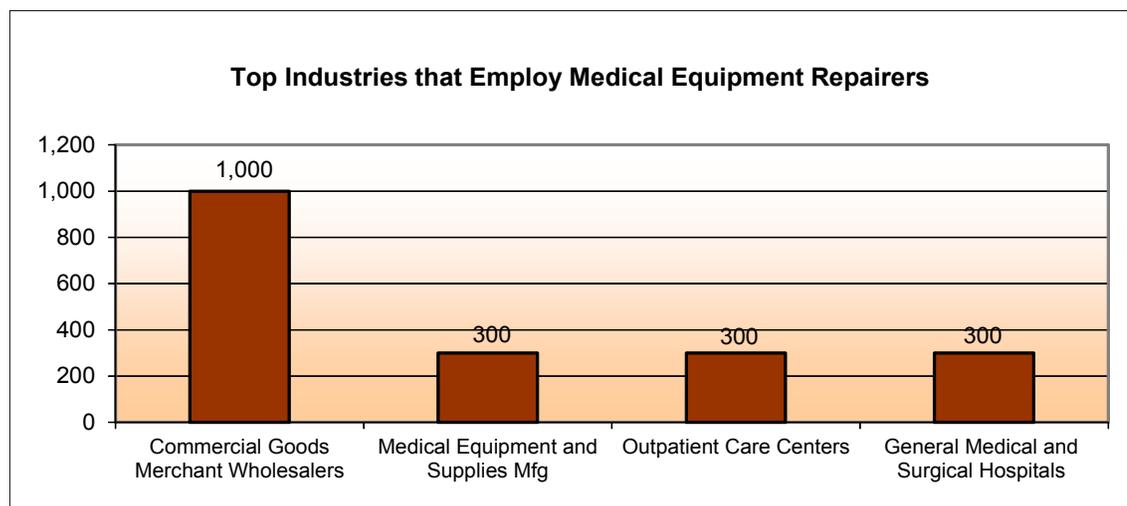
Est. # of Workers (2010-2020)	Numeric Change	Percent Change	Average Annual Job Openings	
3,500	4,600	1,100	31.4	210

Projections of Employment - California Short-Term

Est. # of Workers (2012-2014)	Numeric Change	Percent Change	Average Annual Job Openings	
3,600	3,700	100	2.8	140

Source: [EDD/LMID Projections of Employment by Occupation](#)

Top Industries that Employ this Occupation



Source: [CA Staffing Patterns](#)

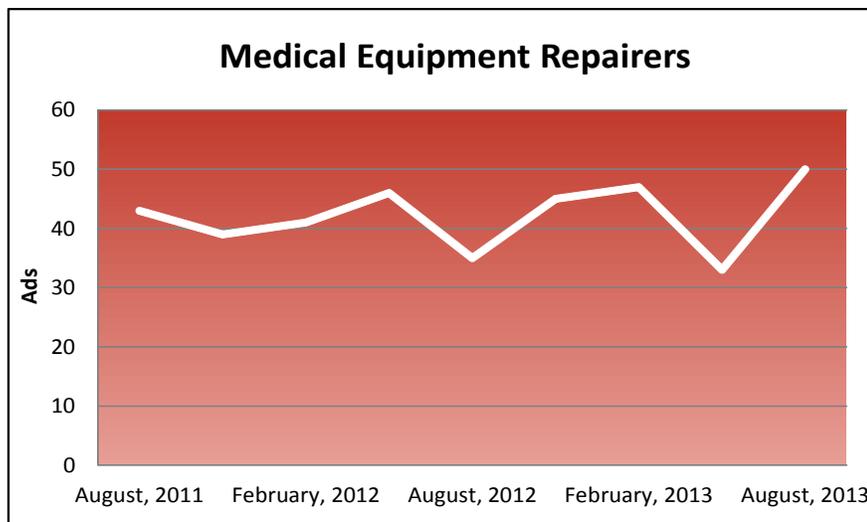
Medical Equipment Repairers, cont.

Recent Job Openings for this Occupation

Month	Total Job Listings	Sample of Employers
July 2013	42	<ul style="list-style-type: none"> Fresenius Medical Care DaVita, Inc.
August 2013	52	<ul style="list-style-type: none"> Fresenius Medical Care Providence Health & Services
September 2013	39	<ul style="list-style-type: none"> General Electric Recruit Arrow

Source: [The Conference Board Help Wanted Online™ \(HWOL\) data series - Hiring Demand Dashboard](#)

Regional 2-Year Online Job Ad Trend for this Occupation



Source: [The Conference Board Help Wanted Online™ \(HWOL\) data series - Hiring Demand Dashboard](#)

Regional Supply and Demand for this Occupation

Estimated Candidate Supply	1,100
Employers Hiring	19
# of Employers Who Have Hired in the Past Four Years	170
Average Posting Period	46 days

Source: [WANTED Analytics: Date accessed 9/30/13](#)

Medical Equipment Repairers, cont.

Important Knowledge, Skills, Abilities, and Work Activities

Knowledge	Description
Computers and Electronics	Knowledge of circuit boards, processors, chips, electronic equipment, and computer hardware and software, including applications and programming.
Engineering and Technology	Knowledge of the practical application of engineering science and technology. This includes applying principles, techniques, procedures, and equipment to the design and production of various goods and services.
Customer and Personal Service	Knowledge of principles and processes for providing customer and personal services. This includes customer needs assessment, meeting quality standards for services, and evaluation of customer satisfaction.
Skill	Description
Equipment Maintenance	Performing routine maintenance on equipment and determining when and what kind of maintenance is needed.
Repairing	Repairing machines or systems using the needed tools.
Troubleshooting	Determining causes of operating errors and deciding what to do about it.
Ability	Description
Finger Dexterity	The ability to make precisely coordinated movements of the fingers of one or both hands to grasp, manipulate, or assemble very small objects.
Problem Sensitivity	The ability to tell when something is wrong or is likely to go wrong. It does not involve solving the problem, only recognizing there is a problem.
Visualization	The ability to imagine how something will look after it is moved around or when its parts are moved or rearranged.
Work Activity	Description
Repairing and Maintaining Electronic Equipment	Servicing, repairing, calibrating, regulating, fine-tuning, or testing machines, devices, and equipment that operate primarily on the basis of electrical or electronic (not mechanical) principles.
Repairing and Maintaining Mechanical Equipment	Servicing, repairing, adjusting, and testing machines, devices, moving parts, and equipment that operate primarily on the basis of mechanical (not electronic) principles.
Inspecting Equipment, Structures, or Material	Inspecting equipment, structures, or materials to identify the cause of errors or other problems or defects.

Source: Occupational Information Network ([O*NET](#))

Security and Fire Alarm Systems Installers

Description

Install, program, maintain, and repair security and fire alarm wiring and equipment. Ensure that work is in accordance with relevant codes.

Sample Job Titles

Alarm Technician, Service Technician, Installation Technician, Fire Alarm Technician, Security Technician, Security Installer, Electronic Security Technician, Fire and Sound Service Technician, Home Security Alarm Installer, Low Voltage Technician

Important Tasks

- Examine systems to locate problems such as loose connections or broken insulation.
- Test backup batteries, keypad programming, sirens, and all security features in order to ensure proper functioning, and to diagnose malfunctions.
- Mount and fasten control panels, door and window contacts, sensors, and video cameras, and attach electrical and telephone wiring in order to connect components.
- Install, maintain, or repair security systems, alarm devices, and related equipment, following blueprints of electrical layouts and building plans.
- Feed cables through access holes, roof spaces, and cavity walls to reach fixture outlets; then position and terminate cables, wires and strapping.

Job Fit

The job of Security and Fire Alarm Systems Installer may appeal to those who enjoy work activities that include practical, hands-on problems and solutions. This occupation also may appeal to those who like following set procedures and routines.

Education and Training Requirements

Typical Education Level: High school diploma or the equivalent and moderate-term on-the-job training. This is an occupation in which workers can develop skills needed to attain competency after a period of between 1 and 12 months of combined on-the-job experience and informal training.

Certification: Link to America's Career InfoNet Certification Finder at www.careerinfonet.org and type in the keywords "alarm installer" to find certification programs related to this occupation.

Security and Fire Alarm Systems Installers, cont.

2013 Median Wages

	Hourly	Annual
California	\$21.25	\$44,192
Los Angeles-Long Beach-Glendale MD	\$21.04	\$43,750
Oxnard-Thousand Oaks-Ventura MSA	\$19.03	\$39,571

Source: [Occupational Employment Statistics Survey 2013 1st Q](#)

Projections of Employment - California Long-Term

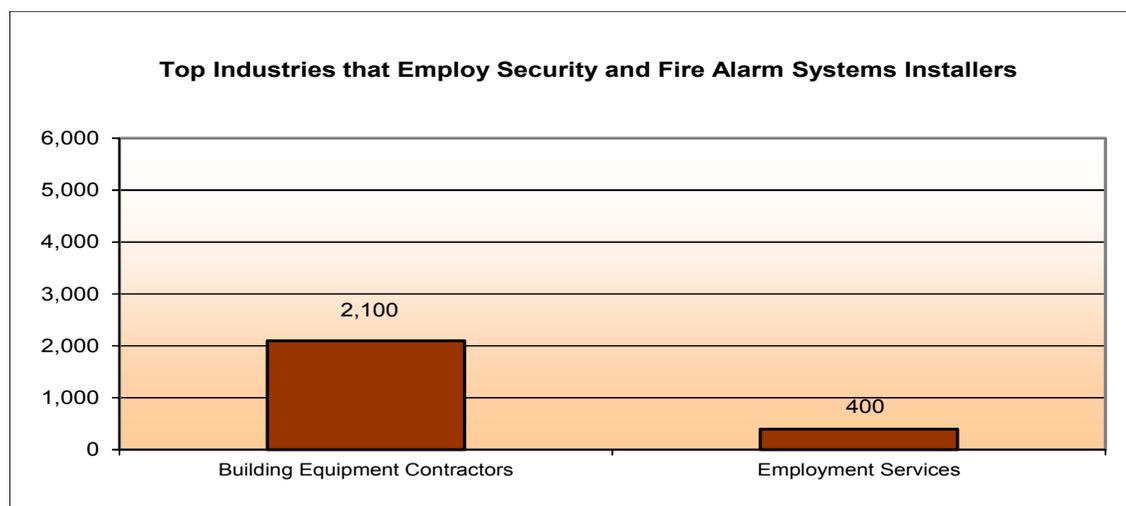
Est. # of Workers (2010-2020)		Numeric Change	Percent Change	Average Annual Job Openings
6,800	8,700	1,900	27.9	360

Projections of Employment - California Short-Term

Est. # of Workers (2012-2014)		Numeric Change	Percent Change	Average Annual Job Openings
7,400	7,800	400	5.4	410

Source: [EDD/LMID Projections of Employment by Occupation](#)

Top Industries that Employ this Occupation



Source: [CA Staffing Patterns](#)

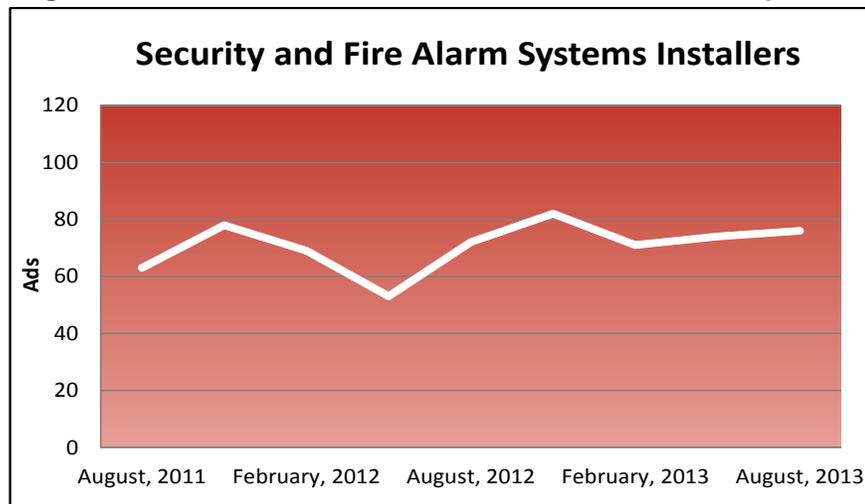
Security and Fire Alarm Systems Installers, cont.

Recent Job Openings for this Occupation

Month	Total Job Listings	Sample of Employers
July 2013	71	<ul style="list-style-type: none"> • ADT • SSD Systems
August 2013	99	<ul style="list-style-type: none"> • ADT • Teksystems
September 2013	69	<ul style="list-style-type: none"> • SSD Systems • ADT Security

Source: [The Conference Board Help Wanted Online™ \(HWOL\) data series - Hiring Demand Dashboard](#)

Regional 2-Year Online Job Ad Trend for this Occupation



Source: [The Conference Board Help Wanted Online™ \(HWOL\) data series - Hiring Demand Dashboard](#)

Regional Supply and Demand for this Occupation

Estimated Candidate Supply	3,500
Employers Hiring	19
# of Employers Who Have Hired in the Past Four Years	119
Average Posting Period	41 days

Source: [WANTED Analytics](#); Date accessed 9/30/13

Security and Fire Alarm Systems Installers, cont.

Important Knowledge, Skills, Abilities, and Work Activities

Knowledge	Description
Computers and Electronics	Knowledge of circuit boards, processors, chips, electronic equipment, and computer hardware and software, including applications and programming.
Customer and Personal Service	Knowledge of principles and processes for providing customer and personal services. This includes customer needs assessment, meeting quality standards for services, and evaluation of customer satisfaction.
Public Safety and Security	Knowledge of relevant equipment, policies, procedures, and strategies to promote effective local, state, or national security operations for the protection of people, data, property, and institutions.
Skill	Description
Active Listening	Giving full attention to what other people are saying, taking time to understand the points being made, asking questions as appropriate, and not interrupting at inappropriate times.
Critical Thinking	Using logic and reasoning to identify the strengths and weaknesses of alternative solutions, conclusions or approaches to problems.
Operation Monitoring	Watching gauges, dials, or other indicators to make sure a machine is working properly.
Ability	Description
Problem Sensitivity	The ability to tell when something is wrong or is likely to go wrong. It does not involve solving the problem, only recognizing there is a problem.
Arm-Hand Steadiness	The ability to keep your hand and arm steady while moving your arm or while holding your arm and hand in one position.
Near Vision	The ability to see details at close range (within a few feet of the observer).
Work Activity	Description
Getting Information	Observing, receiving, and otherwise obtaining information from all relevant sources.
Inspecting Equipment, Structures, or Material	Inspecting equipment, structures, or materials to identify the cause of errors or other problems or defects.

Source: Occupational Information Network ([O*NET](#))

Sample Military Occupational Classifications

42730 - Machinist (Air Force)

44E - Machinist (Army)

2161 - Machinist (Marines)

4404 - Computer Numerically-controlled Machinist (Navy)

This packet is designed for men and women in Machinist positions leaving the military and entering into civilian occupations. It identifies and describes the current military occupation, and profiles five related civilian occupations that share many of the same skill requirements. These five related occupations are examples and individuals may have skills and interests that would qualify them for many other jobs.

These profiles can be used to:

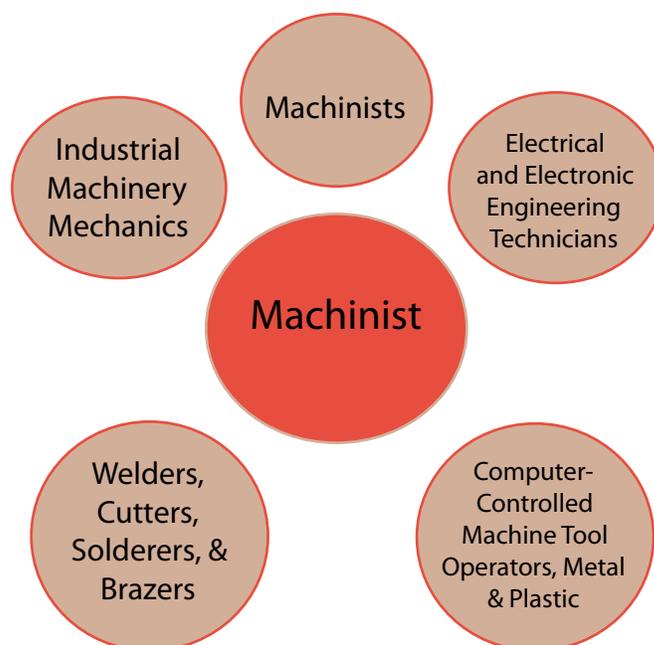
- Prepare for resume writing and job interviews.
- Help make training decisions.
- Explore new career options in occupations that require many of the same skills.

Each Occupation Profile contains the following information:

- Profile of current military occupation, with Top 5 important Duties and Top 3 pertinent Knowledges, Skills, Abilities, and Work Activities.
- Profiles of the most closely related civilian occupations identified, with Top 5 important Tasks; Top 3 pertinent Knowledges, Skills, Abilities, and Work Activities; Labor Market Information; Education and Training Requirements; and Job Listings in your area.

Each information packet is designed to answer questions like "how much can I expect to earn on this job?" and "what's the outlook for this type of work in the next ten years?"

Labor Market Information Division
Workforce Services Branch
Employment Development Department



Machinist, cont.

Description

Perform various duties related to fabrication, repair or modification of engineer, motor transport, weapons, and accessories. Understands the theory and application of Computer Numerically Controlled (CNC) lathes, milling machines and associated equipment utilizing Computer Aided Design (CAD), and Computer Aided Machining (CAM) software. Machinists work from sketches, diagrams, blueprints, written specifications, or oral instructions. Quality control and accuracy is met by the machinists' use of precision measuring devices including micrometers, vernier gauges, and various other gauges. Once the metals are fabricated then they are welded using all standard welding equipment. All shop equipment is maintained to ensure that serviceability is sustained. The machinist will coordinate with other repair shops, report work completion, and complete shop administrative functions.

Important Duties

- Select the appropriate tools, machines, and materials to be used in preparation of machinery work.
- Machine parts to specifications using machine tools such as lathes, milling machines, shapers, or grinders.
- Calculate dimensions and tolerances using knowledge of mathematics and instruments such as micrometers and vernier calipers.
- Determine the sequence of machine operations, and select the proper cutting tools needed to machine workpieces into the desired shapes.
- Analyze job orders, drawings, blueprints, specification, and design data in order to calculate dimensions, tool selection, machine speeds, and feed rates.

Important Knowledge, Skills, Abilities, and Work Activities

Knowledge	Skills
Mechanical	Operation Monitoring
Mathematics	Complex Problem Solving
Design	Quality Control Analysis
Abilities	Work Activities
Control Precision	Controlling Machines and Processes
Near Vision	Interacting With Computers
Problem Sensitivity	Getting Information

Source: Occupational Information Network ([O*NET](#))

Computer-Controlled Machine Tool Operators, Metal and Plastic

Description

Operate computer-controlled machines or robots to perform one or more machine functions on metal or plastic work pieces.

Sample Job Titles

Computer Numerical Control Operator (CNC Operator), Computer Numerical Control Machinist (CNC Machinist), Machine Operator, Computer Numerical Control Lathe Operator (CNC Lathe Operator), CNC Machine Operator

Important Tasks

- Measure dimensions of finished workpieces to ensure conformance to specifications, using precision measuring instruments, templates, and fixtures.
- Remove and replace dull cutting tools.
- Mount, install, align, and secure tools, attachments, fixtures, and workpieces on machines, using hand tools and precision measuring instruments.
- Listen to machines during operation in order to detect sounds such as those made by dull cutting tools or excessive vibration and adjust machines to correct problems.
- Adjust machine feed and speed, change cutting tools, or adjust machine controls when automatic programming is faulty or if machines malfunction.

Job Fit

The job of Computer-Controlled Machine Tool Operator, Metal and Plastic may appeal to those who enjoy work activities that include practical, hands-on problems and solutions. This occupation also may appeal to those who like following set procedures and routines.

Education and Training Requirements

Typical Education Level: High school diploma or the equivalent, less than one year of work experience, and moderate-term on-the-job training. This is an occupation in which workers can develop skills needed to attain competency after a period of between 1 and 12 months of combined on-the-job experience and informal training.

Certification: Link to America's Career InfoNet Certification Finder at www.careerinfonet.org and type in the keywords "machine tool operator" to find certification programs related to this occupation.

Computer-Controlled Machine Tool Operators, Metal and Plastic, cont.

2013 Median Wages

	Hourly	Annual
California	\$17.72	\$36,860
Los Angeles County	\$17.57	\$36,547
Ventura County	\$15.82	\$32,906

Source: Occupational Employment Statistics Survey 2013 1st Q

Projections of Employment - California Long-Term

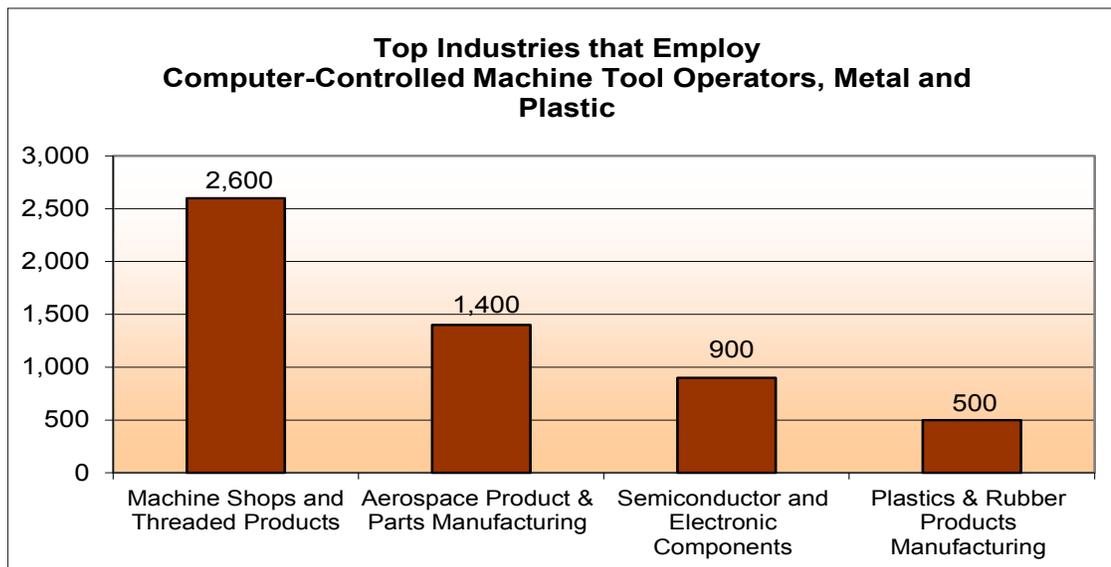
Est. # of Workers (2010-2020)		Numeric Change	Percent Change	Average Annual Job Openings
9,500	11,500	2,000	21.1	390

Projections of Employment - California Short-Term

Est. # of Workers (2012-2014)		Numeric Change	Percent Change	Average Annual Job Openings
9,900	10,200	300	3.0	340

Source: EDD/LMID Projections of Employment by Occupation

Top Industries that Employ this Occupation



Source: CA Staffing Patterns

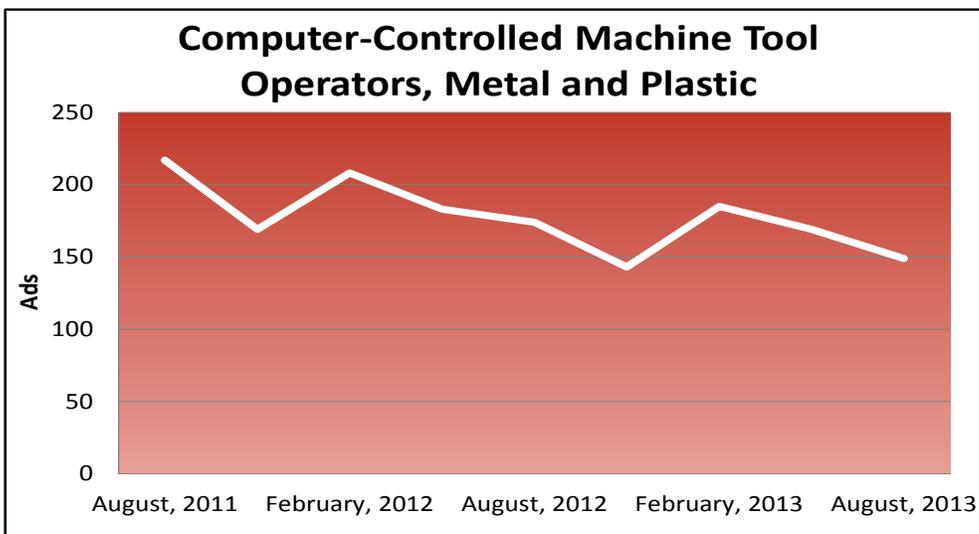
Computer-Controlled Machine Tool Operators, Metal and Plastic, cont.

Recent Job Openings for this Occupation

Month	Total Job Listings	Sample of Employers
July 2013	169	<ul style="list-style-type: none"> • Work 22 • Volt Information Sciences, Inc.
August 2013	152	<ul style="list-style-type: none"> • Work 22 • Lisi Aerospace
September 2013	150	<ul style="list-style-type: none"> • Alcoa Inc. • Work 22

Source: [The Conference Board Help Wanted Online™ \(HWOL\) data series - Hiring Demand Dashboard](#)

Regional 2-Year Online Job Ad Trend for this Occupation



Source: [The Conference Board Help Wanted Online™ \(HWOL\) data series - Hiring Demand Dashboard](#)

Regional Supply and Demand for this Occupation

Estimated Candidate Supply	6,400
Employers Hiring	34
# of Employers Who Have Hired in the Past Four Years	321
Average Posting Period	43 days

Source: [WANTED Analytics: Date accessed 9/30/13](#)

Computer-Controlled Machine Tool Operators, Metal and Plastic, cont.

Important Knowledge, Skills, Abilities, and Work Activities

Knowledge	Description
Mechanical	Knowledge of machines and tools, including their designs, uses, repair, and maintenance.
Mathematics	Knowledge of arithmetic, algebra, geometry, calculus, statistics, and their applications.
Production and Processing	Knowledge of raw materials, production processes, quality control, costs, and other techniques for maximizing the effective manufacture and distribution of goods.
Skill	Description
Monitoring	Monitoring/Assessing performance of yourself, other individuals, or organizations to make improvements or take corrective action.
Operation Monitoring	Watching gauges, dials, or other indicators to make sure a machine is working properly.
Critical Thinking	Using logic and reasoning to identify the strengths and weaknesses of alternative solutions, conclusions or approaches to problems.
Ability	Description
Hearing Sensitivity	The ability to detect or tell the differences between sounds that vary in pitch and loudness.
Problem Sensitivity	The ability to tell when something is wrong or is likely to go wrong. It does not involve solving the problem, only recognizing there is a problem.
Reaction Time	The ability to quickly respond (with the hand, finger, or foot) to a signal (sound, light, picture) when it appears.
Work Activity	Description
Controlling Machines and Processes	Using either control mechanisms or direct physical activity to operate machines or processes (not including computers or vehicles).
Inspecting Equipment, Structures, or Material	Inspecting equipment, structures, or materials to identify the cause of errors or other problems or defects.
Getting Information	Observing, receiving, and otherwise obtaining information from all relevant sources.

Source: Occupational Information Network ([O*NET](#))

Electrical and Electronic Engineering Technicians

Description

Apply electrical and electronic theory and related knowledge, usually under the direction of engineering staff, to design, build, repair, calibrate, and modify electrical components, circuitry, controls, and machinery for subsequent evaluation and use by engineering staff in making engineering design decisions.

Sample Job Titles

Test Technician, Technician, Refurbish Technician (Refurb Tech), Electrical Technician, Electronics Test Technician, Engineering Aide, Failure Analysis Technician

Important Tasks

- Set up and operate test equipment to evaluate performance of developmental parts, assemblies, or systems under simulated operating conditions, and record results.
- Assemble electrical and electronic systems and prototypes according to engineering data and knowledge of electrical principles, using hand tools and measuring instruments.
- Provide technical assistance and resolution when electrical or engineering problems are encountered before, during, and after construction.
- Read blueprints, wiring diagrams, schematic drawings, or engineering instructions for assembling electronics units, applying knowledge of electronic theory and components.
- Perform preventative maintenance or calibration of equipment or systems.

Job Fit

Electrical and Electronic Engineering Technician jobs will appeal to those with realistic interests who like practical, hands-on problems and solutions and paying close attention to detail. An interest in math and science is helpful. The ability to work independently and as a member of a team is important in this occupation.

Education and Training Requirements

Typical Education Level: Associate degree.

Certification: Link to America's Career InfoNet Certification Finder at www.careerinfonet.org and type in the keywords "electrical engineering technician" to find certification programs related to this occupation.

Electrical and Electronic Engineering Technicians, cont.

2013 Median Wages

	Hourly	Annual
California	\$29.52	\$61,391
Los Angeles County	\$30.31	\$63,040
Ventura County	\$35.00	\$72,811

Source: [Occupational Employment Statistics Survey 2013 1st Q](#)

Projections of Employment - California Long-Term

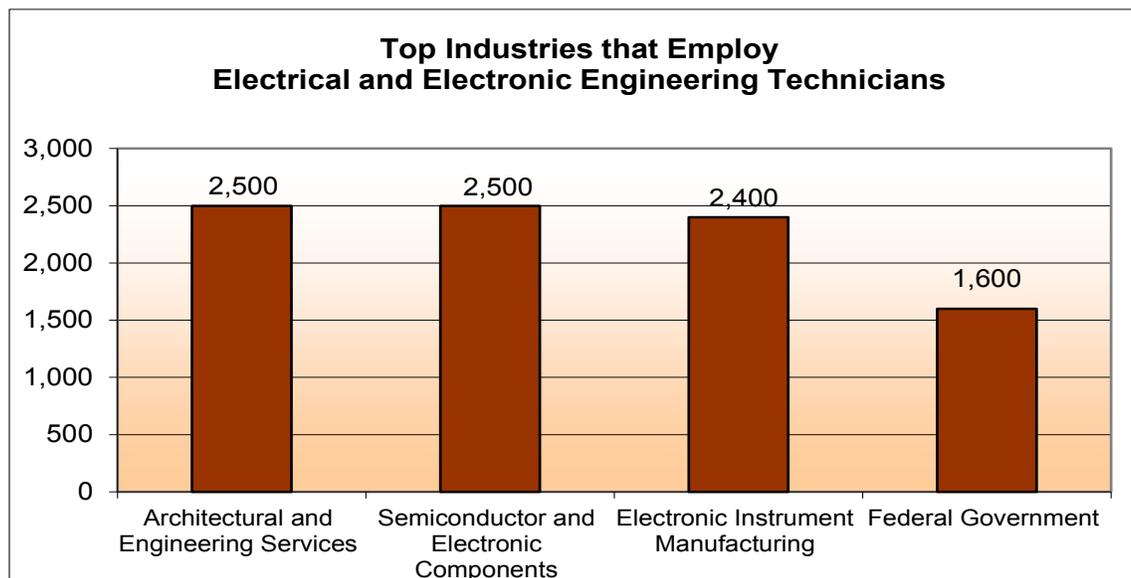
Est. # of Workers (2010-2020)		Numeric Change	Percent Change	Average Annual Job Openings
20,400	22,100	1,700	8.3	570

Projections of Employment - California Short-Term

Est. # of Workers (2012-2014)		Numeric Change	Percent Change	Average Annual Job Openings
20,600	20,900	300	1.5	560

Source: [EDD/LMID Projections of Employment by Occupation](#)

Top Industries that Employ this Occupation



Source: [CA Staffing Patterns](#)

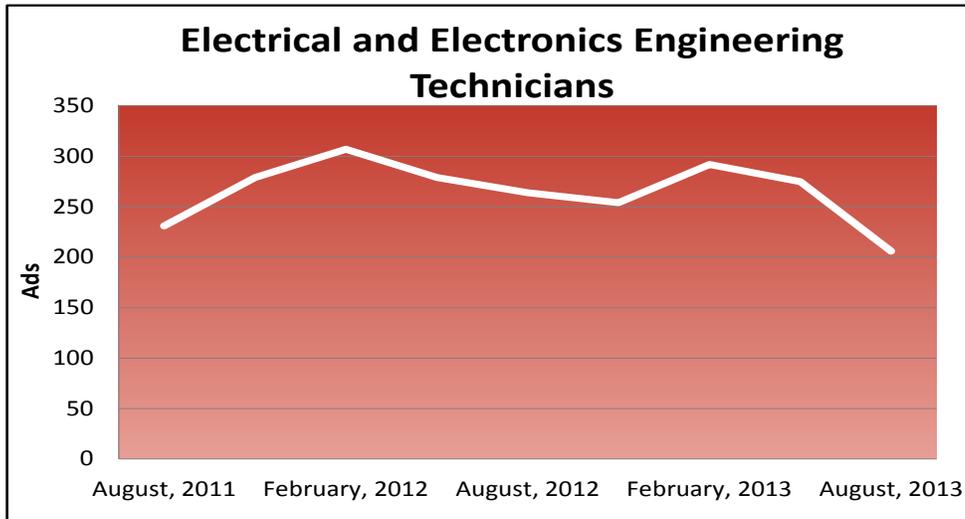
Electrical and Electronic Engineering Technicians, cont.

Recent Job Openings for this Occupation

Month	Total Job Listings	Sample of Employers
July 2013	225	<ul style="list-style-type: none"> • L-3 Communications • Northrop Grumman
August 2013	209	<ul style="list-style-type: none"> • Teledyne • Northrop Grumman
September 2013	172	<ul style="list-style-type: none"> • Teledyne • SIMCO Electronics

Source: [The Conference Board Help Wanted Online™ \(HWOL\) data series - Hiring Demand Dashboard](#)

Regional 2-Year Online Job Ad Trend for this Occupation



Source: [The Conference Board Help Wanted Online™ \(HWOL\) data series - Hiring Demand Dashboard](#)

Regional Supply and Demand for this Occupation

Estimated Candidate Supply	7,300
Employers Hiring	0
# of Employers Who Have Hired in the Past Four Years	1
Average Posting Period	46 days

Source: [WANTED Analytics](#); Date accessed 10/8/13

Electrical and Electronic Engineering Technicians, cont.

Important Knowledge, Skills, Abilities, and Work Activities

Knowledge	Description
Engineering and Technology	Knowledge of the practical application of engineering science and technology. This includes applying principles, techniques, procedures, and equipment to the design and production of various goods and services.
Computers and Electronics	Knowledge of circuit boards, processors, chips, electronic equipment, and computer hardware and software, including applications and programming.
Mechanical	Knowledge of machines and tools, including their designs, uses, repair, and maintenance.
Skill	Description
Complex Problem Solving	Identifying complex problems and reviewing related information to develop and evaluate options and implement solutions.
Reading Comprehension	Understanding written sentences and paragraphs in work related documents.
Time Management	Managing one's own time and the time of others.
Ability	Description
Problem Sensitivity	The ability to tell when something is wrong or is likely to go wrong. It does not involve solving the problem, only recognizing there is a problem.
Oral Comprehension	The ability to listen to and understand information and ideas presented through spoken words and sentences.
Oral Expression	The ability to communicate information and ideas in speaking so others will understand.
Work Activity	Description
Getting Information	Observing, receiving, and otherwise obtaining information from all relevant sources.
Repairing and Maintaining Electronic Equipment	Servicing, repairing, calibrating, regulating, fine-tuning, or testing machines, devices, and equipment that operate primarily on the basis of electrical or electronic (not mechanical) principles.
Making Decisions and Solving Problems	Analyzing information and evaluating results to choose the best solution and solve problems.

Source: Occupational Information Network ([O*NET](#))

Industrial Machinery Mechanics

Description

Repair, install, adjust, or maintain industrial production and processing machinery or refinery and pipeline distribution systems.

Sample Job Titles

Maintenance Mechanic, Maintenance Technician, Mechanic, Engineering Technician, Master Mechanic, Industrial Machinery Mechanic, Machine Adjuster, Overhauler

Important Tasks

- Disassemble machinery and equipment to remove parts and make repairs.
- Repair and replace broken or malfunctioning components of machinery and equipment.
- Repair and maintain the operating condition of industrial production and processing machinery and equipment.
- Examine parts for defects such as breakage and excessive wear.
- Reassemble equipment after completion of inspections, testing, or repairs.

Job Fit

The job of Industrial Machinery Mechanic may appeal to those who enjoy work activities that include practical, hands-on problems and solutions. This occupation also may appeal to those who like searching for facts and figuring out problems mentally.

Education and Training Requirements

Typical Education Level: High school diploma or the equivalent and short-term on-the-job training. This is an occupation in which workers can develop skills needed to attain competency after a period of less than one month of combined on-the-job experience and informal training.

Certification: Link to America's Career InfoNet Certification Finder at www.careerinfonet.org and type in the keywords "industrial mechanic" to find certification programs related to this occupation.

Industrial Machinery Mechanics, cont.

2013 Median Wages

	Hourly	Annual
California	\$26.55	\$55,223
Los Angeles County	\$27.00	\$56,152
Ventura County	\$23.06	\$47,973

Source: [Occupational Employment Statistics Survey 2013 1st Q](#)

Projections of Employment - California Long-Term

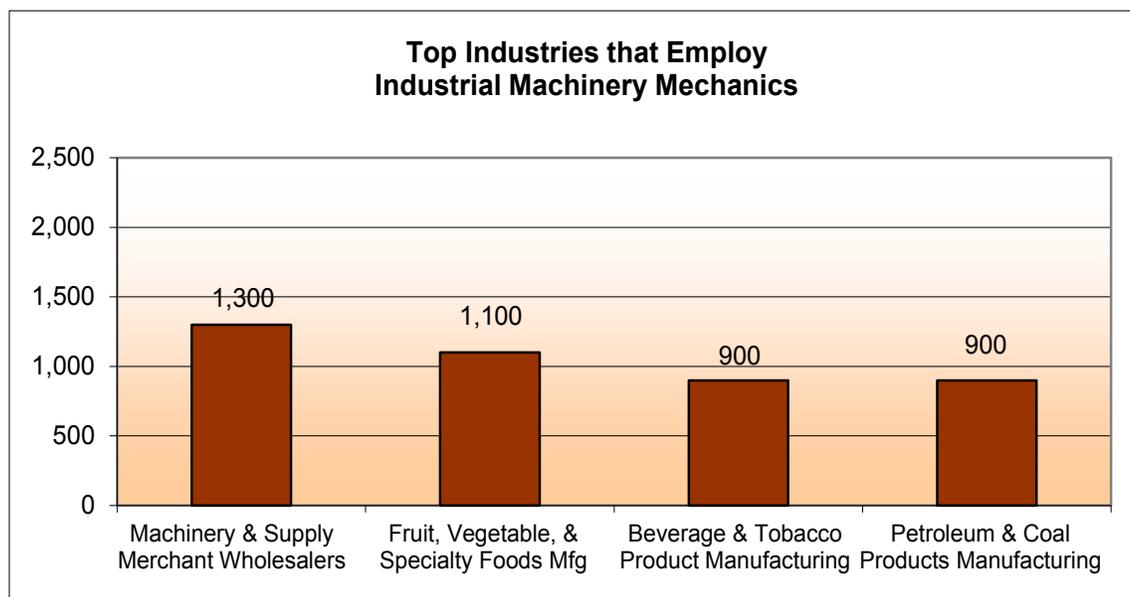
Est. # of Workers (2010-2020)		Numeric Change	Percent Change	Average Annual Job Openings
19,300	24,500	5,200	26.9	880

Projections of Employment - California Short-Term

Est. # of Workers (2012-2014)		Numeric Change	Percent Change	Average Annual Job Openings
20,600	21,100	500	2.4	650

Source: [EDD/LMID Projections of Employment by Occupation](#)

Top Industries that Employ this Occupation



Source: [CA Staffing Patterns](#)

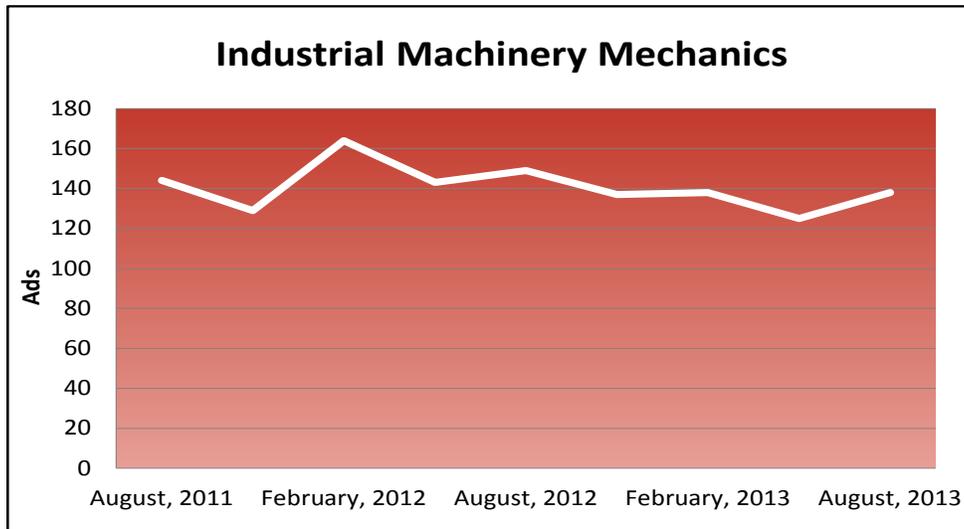
Industrial Machinery Mechanics, cont.

Recent Job Openings for this Occupation

Month	Total Job Listings	Sample of Employers
July 2013	136	<ul style="list-style-type: none"> • Aerotek • Alliant Techsystems
August 2013	148	<ul style="list-style-type: none"> • Aerotek • Owens Illinois
September 2013	153	<ul style="list-style-type: none"> • Aerotek • Adecco

Source: [The Conference Board Help Wanted Online™ \(HWOL\) data series - Hiring Demand Dashboard](#)

Regional 2-Year Online Job Ad Trend for this Occupation



Source: [The Conference Board Help Wanted Online™ \(HWOL\) data series - Hiring Demand Dashboard](#)

Regional Supply and Demand for this Occupation

Estimated Candidate Supply	8,100
Employers Hiring	41
# of Employers Who Have Hired in the Past Four Years	445
Average Posting Period	44 days

Source: [WANTED Analytics](#): Date accessed 9/30/13

Industrial Machinery Mechanics, cont.

Important Knowledge, Skills, Abilities, and Work Activities

Knowledge	Description
Mechanical	Knowledge of machines and tools, including their designs, uses, repair, and maintenance.
Mathematics	Knowledge of arithmetic, algebra, geometry, calculus, statistics, and their applications.
Engineering and Technology	Knowledge of the practical application of engineering science and technology. This includes applying principles, techniques, procedures, and equipment to the design and production of various goods and services.
Skill	Description
Repairing	Repairing machines or systems using the needed tools.
Equipment Maintenance	Performing routine maintenance on equipment and determining when and what kind of maintenance is needed.
Operation Monitoring	Watching gauges, dials, or other indicators to make sure a machine is working properly.
Ability	Description
Reaction Time	The ability to quickly respond (with the hand, finger, or foot) to a signal (sound, light, picture) when it appears.
Control Precision	The ability to quickly and repeatedly adjust the controls of a machine or a vehicle to exact positions.
Manual Dexterity	The ability to quickly move your hand, your hand together with your arm, or your two hands to grasp, manipulate, or assemble objects.
Work Activity	Description
Repairing and Maintaining Mechanical Equipment	Servicing, repairing, adjusting, and testing machines, devices, moving parts, and equipment that operate primarily on the basis of mechanical (not electronic) principles.
Inspecting Equipment, Structures, or Material	Inspecting equipment, structures, or materials to identify the cause of errors or other problems or defects.
Handling and Moving Objects	Using hands and arms in handling, installing, positioning, and moving materials, and manipulating things.

Source: Occupational Information Network ([O*NET](#))

Machinists

Description

Set up and operate a variety of machine tools to produce precision parts and instruments. Includes precision instrument makers who fabricate, modify, or repair mechanical instruments. May also fabricate and modify parts to make or repair machine tools or maintain industrial machines, applying knowledge of mechanics, shop mathematics, metal properties, layout, and machining procedures.

Sample Job Titles

Tool Room Machinist, Machine Operator, Machine Repair Person, Machinist Tool and Die, Automation Technician, Gear Machinist, Maintenance Specialist, Set-Up Machinist, Utility Operator

Important Tasks

- Calculate dimensions and tolerances using knowledge of mathematics and instruments such as micrometers and vernier calipers.
- Align and secure holding fixtures, cutting tools, attachments, accessories, and materials onto machines.
- Select the appropriate tools, machines, and materials to be used in preparation of machinery work.
- Monitor the feed and speed of machines during the machining process.
- Machine parts to specifications using machine tools such as lathes, milling machines, shapers, or grinders.

Job Fit

The job of Machinist may appeal to those who enjoy working with their hands, operating machines to install or move things, performing duties that are clearly defined, and paying close attention to details. This occupation may also be a good fit for those who enjoy activities that include practical, hands-on problems and solutions.

Education and Training Requirements

Typical Education Level: High school diploma or the equivalent and long-term on-the-job training. This is an occupation in which workers can develop skills needed to attain competency after a period of 12 months or more of combined on-the-job experience and informal training.

Certification: Link to America's Career InfoNet Certification Finder at www.careerinfonet.org and type in the keywords "machinist" to find certification programs related to this occupation.

Machinists, cont.

2013 Median Wages

	Hourly	Annual
California	\$19.25	\$40,050
Los Angeles County	\$17.26	\$35,893
Ventura County	\$18.72	\$38,948

Source: [Occupational Employment Statistics Survey 2013 1st Q](#)

Projections of Employment - California Long-Term

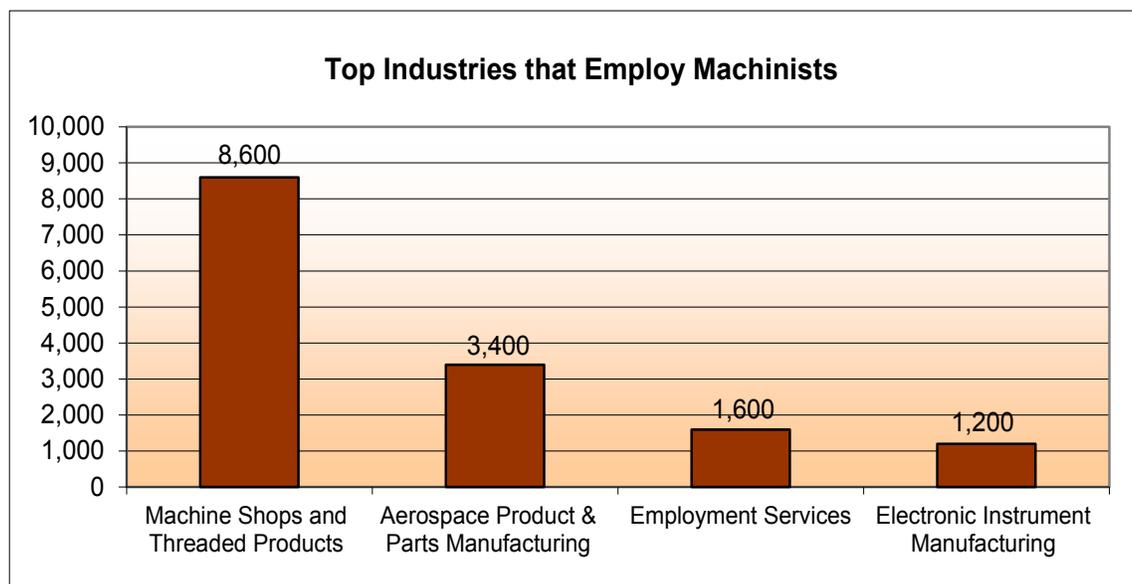
Est. # of Workers (2010-2020)		Numeric Change	Percent Change	Average Annual Job Openings
30,500	34,500	4,000	13.1	950

Projections of Employment - California Short-Term

Est. # of Workers (2012-2014)		Numeric Change	Percent Change	Average Annual Job Openings
32,400	33,700	1,300	4.0	1,230

Source: [EDD/LMID Projections of Employment by Occupation](#)

Top Industries that Employ this Occupation



Source: [CA Staffing Patterns](#)

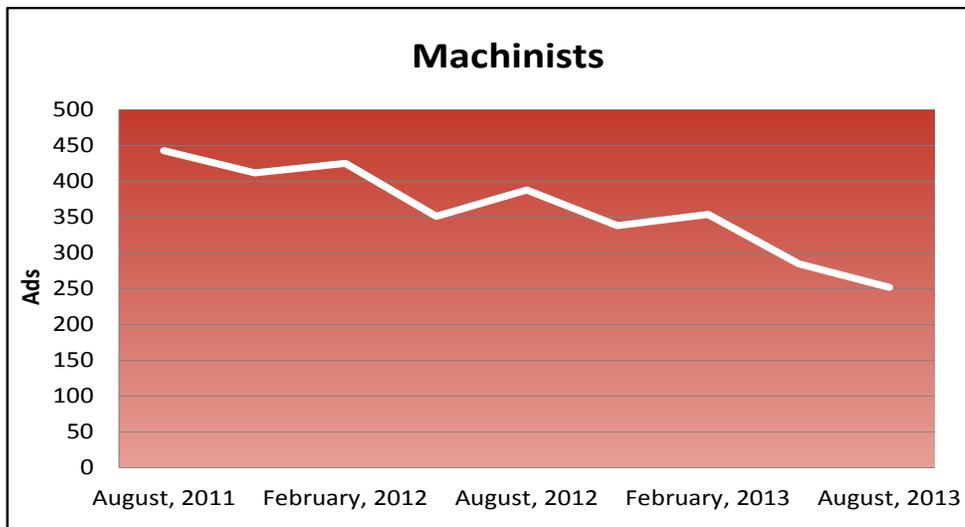
Machinists, cont.

Recent Job Openings for this Occupation

Month	Total Job Listings	Sample of Employers
July 2013	268	<ul style="list-style-type: none"> • Aerotek • Alcoa Inc.
August 2013	241	<ul style="list-style-type: none"> • Alcoa Inc. • Aerotek
September 2013	245	<ul style="list-style-type: none"> • Alcoa Inc. • Lisi Aerospace

Source: [The Conference Board Help Wanted Online™ \(HWOL\) data series - Hiring Demand Dashboard](#)

Regional 2-Year Online Job Ad Trend for this Occupation



Source: [The Conference Board Help Wanted Online™ \(HWOL\) data series - Hiring Demand Dashboard](#)

Regional Supply and Demand for this Occupation

Estimated Candidate Supply	17,000
Employers Hiring	66
# of Employers Who Have Hired in the Past Four Years	644
Average Posting Period	43 days

Source: [WANTED Analytics](#): Date accessed 9/30/13

Machinists, cont.

Important Knowledge, Skills, Abilities, and Work Activities

Knowledge	Description
Mechanical	Knowledge of machines and tools, including their designs, uses, repair, and maintenance.
Production and Processing	Knowledge of raw materials, production processes, quality control, costs, and other techniques for maximizing the effective manufacture and distribution of goods.
Mathematics	Knowledge of arithmetic, algebra, geometry, calculus, statistics, and their applications.
Skill	Description
Operation Monitoring	Watching gauges, dials, or other indicators to make sure a machine is working properly.
Quality Control Analysis	Conducting tests and inspections of products, services, or processes to evaluate quality or performance.
Operation and Control	Controlling operations of equipment or systems.
Ability	Description
Control Precision	The ability to quickly and repeatedly adjust the controls of a machine or a vehicle to exact positions.
Problem Sensitivity	The ability to tell when something is wrong or is likely to go wrong. It does not involve solving the problem, only recognizing there is a problem.
Finger Dexterity	The ability to make precisely coordinated movements of the fingers of one or both hands to grasp, manipulate, or assemble very small objects.
Work Activity	Description
Controlling Machines and Processes	Using either control mechanisms or direct physical activity to operate machines or processes (not including computers or vehicles).
Getting Information	Observing, receiving, and otherwise obtaining information from all relevant sources.
Making Decisions and Solving Problems	Analyzing information and evaluating results to choose the best solution and solve problems.

Source: Occupational Information Network ([O*NET](#))

Welders, Cutters, Solderers, and Brazers

Description

Use hand-welding, flame-cutting, hand soldering, or brazing equipment to weld or join metal components or to fill holes, indentations, or seams of fabricated metal products.

Sample Job Titles

Welder-Fitter, Fabricator, Maintenance Welder, Mig Welder, Sub Arc Operator, Electronic Assembler, Wirer, Assembly Line Brazers, Connector, Electronic Technician

Important Tasks

- Operate safety equipment and use safe work habits.
- Weld components in flat, vertical, or overhead positions.
- Melt and apply solder along adjoining edges of workpieces to solder joints, using soldering irons, gas torches, or electric-ultrasonic equipment.
- Ignite torches or start power supplies and strike arcs by touching electrodes to metals being welded, completing electrical circuits.
- Examine seams for defects, and rework defective joints or broken parts.

Job Fit

This occupation appeals to those who like practical, hands-on problems and solutions dealing with metals, tools, and machinery. The job of Welder satisfies those with realistic interests who enjoy building things.

Education and Training Requirements

Typical Education Level: High school diploma or the equivalent, less than one year of work experience, and moderate-term on-the-job training. This is an occupation in which workers can develop skills needed to attain competency after a period of between 1 and 12 months of combined on-the-job experience and informal training.

Certification: Link to America's Career InfoNet Certification Finder at www.careerinfonet.org and type in the keyword "welder" to find certification programs related to this occupation.

Welders, Cutters, Solderers, and Brazers, cont.

2013 Median Wages

	Hourly	Annual
California	\$18.42	\$38,322
Los Angeles County	\$16.29	\$33,878
Ventura County	\$16.15	\$33,583

Source: [Occupational Employment Statistics Survey 2013 1st Q](#)

Projections of Employment - California Long-Term

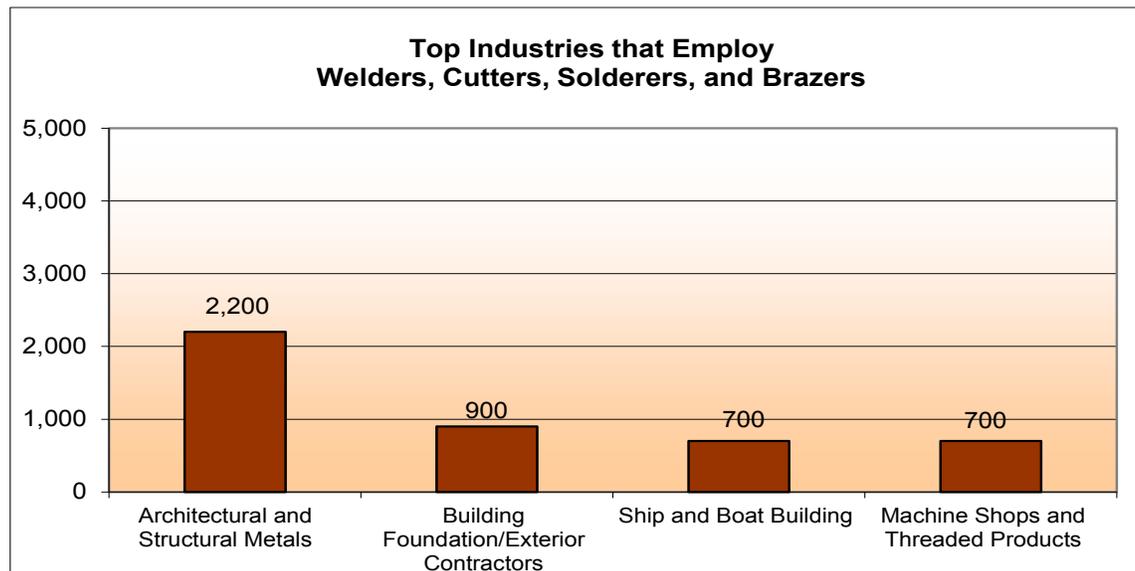
Est. # of Workers (2010-2020)		Numeric Change	Percent Change	Average Annual Job Openings
21,700	24,100	2,400	11.1	820

Projections of Employment - California Short-Term

Est. # of Workers (2012-2014)		Numeric Change	Percent Change	Average Annual Job Openings
22,900	23,700	800	3.5	1,030

Source: [EDD/LMID Projections of Employment by Occupation](#)

Top Industries that Employ this Occupation



Source: [CA Staffing Patterns](#)

Welders, Cutters, Solderers, and Brazers, cont.

Recent Job Openings for this Occupation

Month	Total Job Listings	Sample of Employers
July 2013	125	<ul style="list-style-type: none"> • Volt Information Sciences, Inc. • Aerotek
August 2013	126	<ul style="list-style-type: none"> • Aerotek • Honeywell
September 2013	114	<ul style="list-style-type: none"> • Aerotek • Honeywell

Source: [The Conference Board Help Wanted Online™ \(HWOL\) data series - Hiring Demand Dashboard](#)

Regional 2-Year Online Job Ad Trend for this Occupation



Source: [The Conference Board Help Wanted Online™ \(HWOL\) data series - Hiring Demand Dashboard](#)

Regional Supply and Demand for this Occupation

Estimated Candidate Supply	8,700
Employers Hiring	31
# of Employers Who Have Hired in the Past Four Years	315
Average Posting Period	40 days

Source: [WANTED Analytics: Date accessed 10/8/13](#)

Welders, Cutters, Solderers, and Brazers, cont.

Important Knowledge, Skills, Abilities, and Work Activities

Knowledge	Description
Mechanical	Knowledge of machines and tools, including their designs, uses, repair, and maintenance.
Mathematics	Knowledge of arithmetic, algebra, geometry, calculus, statistics, and their applications.
Engineering and Technology	Knowledge of the practical application of engineering science and technology. This includes applying principles, techniques, procedures, and equipment to the design and production of various goods and services.
Skill	Description
Monitoring	Monitoring/Assessing performance of yourself, other individuals, or organizations to make improvements or take corrective action.
Critical Thinking	Using logic and reasoning to identify the strengths and weaknesses of alternative solutions, conclusions or approaches to problems.
Active Listening	Giving full attention to what other people are saying, taking time to understand the points being made, asking questions as appropriate, and not interrupting at inappropriate times.
Ability	Description
Near Vision	The ability to see details at close range (within a few feet of the observer).
Arm-Hand Steadiness	The ability to keep your hand and arm steady while moving your arm or while holding your arm and hand in one position.
Manual Dexterity	The ability to quickly move your hand, your hand together with your arm, or your two hands to grasp, manipulate, or assemble objects.
Work Activity	Description
Handling and Moving Objects	Using hands and arms in handling, installing, positioning, and moving materials, and manipulating things.
Inspecting Equipment, Structures, or Material	Inspecting equipment, structures, or materials to identify the cause of errors or other problems or defects.
Controlling Machines and Processes	Using either control mechanisms or direct physical activity to operate machines or processes (not including computers or vehicles).

Source: Occupational Information Network ([O*NET](#))

Telecom Technician

Sample Military Occupational Classifications

- 29130 - Telecommunications Operations Specialist (Air Force)
- 25D - Telecommunications Operator-Maintainer (Army)
- 280 - Telephone Technician (Coast Guard)
- 0610 - Telephone Systems Officer (Marines)

This packet is designed for men and women in Telecom Technician positions leaving the military and entering into civilian occupations. It identifies and describes the current military occupation, and profiles five related civilian occupations that share many of the same skill requirements. These five related occupations are examples and individuals may have skills and interests that would qualify them for many other jobs.

These profiles can be used to:

- Prepare for resume writing and job interviews.
- Help make training decisions.
- Explore new career options in occupations that require many of the same skills.

Each Occupation Profile contains the following information:

- Profile of current military occupation, with Top 6 important Duties and Top 3 pertinent Knowledges, Skills, Abilities, and Work Activities.
- Profiles of the most closely related civilian occupations identified, with Top 5 important Tasks; Top 3 pertinent Knowledges, Skills, Abilities, and Work Activities; Labor Market Information; Education and Training Requirements; and Job Listings in your area.

Each information packet is designed to answer questions like "how much can I expect to earn on this job?" and "what's the outlook for this type of work in the next ten years?"

Labor Market Information Division
Workforce Services Branch
Employment Development Department



Telecom Technician, cont.

Description

Supervise and coordinate the planning, installation, operation, maintenance, and repair of tactical and fixed telephone, cable, and wire systems. Additionally, they provide technical guidance required to procure and integrate telephone systems in the development of plans and policy for current and future operations.

Important Duties

- Inspect or test lines or cables, recording and analyzing test results, to assess transmission characteristics and allocate faults or malfunctions.
- Splice cables, using hand tools, epoxy, or mechanical equipment.
- Measure signal strength at utility poles, using electronic test equipment.
- Access specific areas to string lines or install terminal boxes, auxiliary equipment, using trucks, or climbing poles or ladders, or entering tunnels, trenches, or crawl spaces.
- String cables between structures and lines from poles, towers, or trenches and pull lines to proper tension.
- Note differences in wire and cable colors so that work can be performed correctly.

Important Knowledge, Skills, Abilities, and Work Activities

Knowledge	Skills
Telecommunications	Operation Monitoring
Computers and Electronics	Troubleshooting
Mechanical	Quality Control Analysis
Abilities	Work Activities
Oral Expression	Updating and Using Relevant Knowledge
Inductive Reasoning	Handling and Moving Objects
Visual Color Discrimination	Making Decisions and Solving Problems

Source: Occupational Information Network ([O*NET](#))

Medical Records and Health Information Technicians

Description

Compile, process, and maintain medical records of hospital and clinic patients in a manner consistent with medical, administrative, ethical, legal, and regulatory requirements of the health care system. Process, maintain, compile, and report patient information for health requirements and standards.

Sample Job Titles

Medical Records Clerk, Health Information Clerk, Office Manager, File Clerk, Medical Records Coordinator, Medical Records Analyst, Medical Records Director, Coder

Important Tasks

- Protect the security of medical records to ensure that confidentiality is maintained.
- Review records for completeness, accuracy and compliance with regulations.
- Retrieve patient medical records for physicians, technicians, or other medical personnel.
- Release information to persons and agencies according to regulations.
- Plan, develop, maintain and operate a variety of health record indexes and storage and retrieval systems to collect, classify, store and analyze information.

Job Fit

The job of Health Information Technician may appeal to those who enjoy following set procedures and routines as well as accuracy and attention to detail. Service-oriented individuals who value working in a friendly non-competitive environment should enjoy this type of job.

Education and Training Requirements

Typical Education Level: Postsecondary non-degree award.

Certification: Link to America's Career InfoNet Certification Finder at www.careerinfonet.org and type in the keywords "medical records technician" to find certification programs related to this occupation.

Medical Records and Health Information Technicians, cont.

2013 Median Wages

	Hourly	Annual
California	\$18.80	\$39,111
Los Angeles County	\$17.59	\$36,575
Ventura County	\$18.21	\$37,871

Source: [Occupational Employment Statistics Survey 2013 1st Q](#)

Projections of Employment - California Long-Term

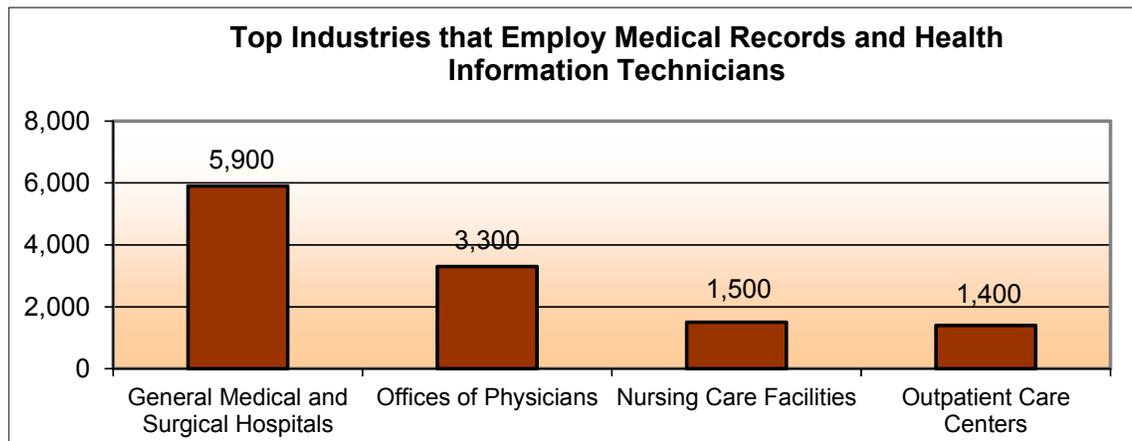
Est. # of Workers (2010-2020)		Numeric Change	Percent Change	Average Annual Job Openings
17,400	20,700	3,300	19.0	680

Projections of Employment - California Short-Term

Est. # of Workers (2012-2014)		Numeric Change	Percent Change	Average Annual Job Openings
18,000	18,900	900	5.0	730

Source: [EDD/LMID Projections of Employment by Occupation](#)

Top Industries that Employ this Occupation



Source: [CA Staffing Patterns](#)

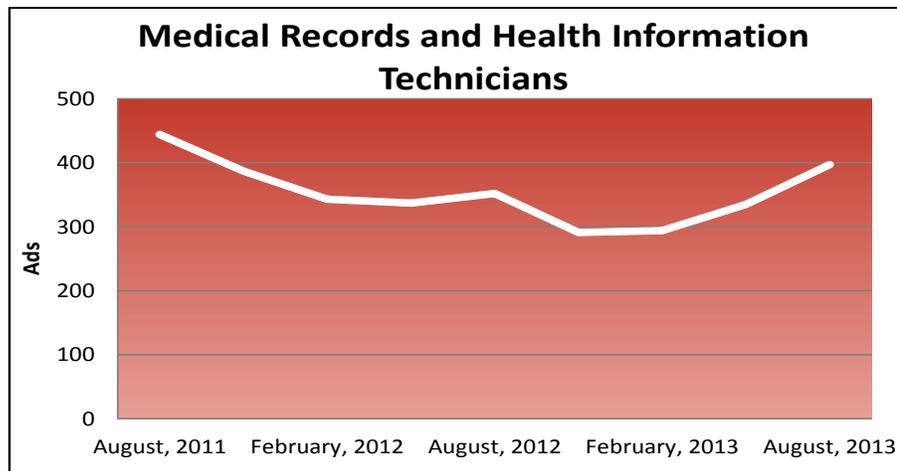
Medical Records and Health Information Technicians, cont.

Recent Job Openings for this Occupation

Month	Total Job Listings	Sample of Employers
July 2013	370	<ul style="list-style-type: none"> HRAA/AdminAssist Office Team A
August 2013	451	<ul style="list-style-type: none"> Office Team A HRAA/AdminAssist
September 2013	428	<ul style="list-style-type: none"> Office Team A Providence Health & Services

Source: [The Conference Board Help Wanted Online™ \(HWOL\) data series - Hiring Demand Dashboard](#)

Regional 2-Year Online Job Ad Trend for this Occupation



Source: [The Conference Board Help Wanted Online™ \(HWOL\) data series - Hiring Demand Dashboard](#)

Regional Supply and Demand for this Occupation

Estimated Candidate Supply	7,200
Employers Hiring	90
# of Employers Who Have Hired in the Past Four Years	710
Average Posting Period	50 days

Source: [WANTED Analytics](#): Date accessed 9/30/13

Medical Records and Health Information Technicians, cont.

Important Knowledge, Skills, Abilities, and Work Activities

Knowledge	Description
Clerical	Knowledge of administrative and clerical procedures and systems such as word processing, managing files and records, stenography and transcription, designing forms, and other office procedures and terminology.
Customer and Personal Service	Knowledge of principles and processes for providing customer and personal services. This includes customer needs assessment, meeting quality standards for services, and evaluation of customer satisfaction.
English Language	Knowledge of the structure and content of the English language including the meaning and spelling of words, rules of composition, and grammar.
Skill	Description
Active Listening	Giving full attention to what other people are saying, taking time to understand the points being made, asking questions as appropriate, and not interrupting at inappropriate times.
Reading Comprehension	Understanding written sentences and paragraphs in work related documents.
Speaking	Talking to others to convey information effectively.
Ability	Description
Near Vision	The ability to see details at close range (within a few feet of the observer).
Oral Comprehension	The ability to listen to and understand information and ideas presented through spoken words and sentences.
Oral Expression	The ability to communicate information and ideas in speaking so others will understand.
Work Activity	Description
Getting Information	Observing, receiving, and otherwise obtaining information from all relevant sources.
Interacting With Computers	Using computers and computer systems (including hardware and software) to program, write software, set up functions, enter data, or process information.
Organizing, Planning, and Prioritizing Work	Developing specific goals and plans to prioritize, organize, and accomplish your work.

Source: Occupational Information Network ([O*NET](#))

Computer Systems Analysts

Description

Analyze science, engineering, business, and other data processing problems to implement and improve computer systems. Analyze user requirements, procedures, and problems to automate or improve existing systems and review computer system capabilities, workflow, and scheduling limitations. May analyze or recommend commercially available software.

Sample Job Titles

Systems Analyst, Programmer Analyst, Business Systems Analyst, Computer Systems Analyst, Computer Systems Consultant, Computer Analyst, Information Systems Analyst (ISA), Applications Analyst, Business Analyst, Systems Engineer

Important Tasks

- Expand or modify system to serve new purposes or improve work flow.
- Test, maintain, and monitor computer programs and systems, including coordinating the installation of computer programs and systems.
- Develop, document and revise system design procedures, test procedures, and quality standards.
- Provide staff and users with assistance solving computer related problems, such as malfunctions and program problems.
- Review and analyze computer printouts and performance indicators to locate code problems, and correct errors by correcting codes.

Job Fit

The job of Computer Systems Analyst will appeal to those who enjoy activities that involve working with ideas and that require an extensive amount of thinking. The Computer Systems Analyst occupation satisfies those with investigative interests. Investigative occupations involve searching for facts and figuring out problems.

Education and Training Requirements

Typical Education Level: Bachelor's degree.

Certification: Link to America's Career InfoNet Certification Finder at www.careerinfonet.org and type in the keywords "computer analyst" to find certification programs related to this occupation.

Computer Systems Analysts, cont.

2013 MedianWages

	Hourly	Annual
California	\$41.82	\$86,987
Los Angeles-Long Beach-Glendale MD	\$42.59	\$88,601
Oxnard-Thousand Oaks-Ventura MSA	\$41.63	\$86,584

Source: [Occupational Employment Statistics Survey 2013 1st Q](#)

Projections of Employment - California Long-Term

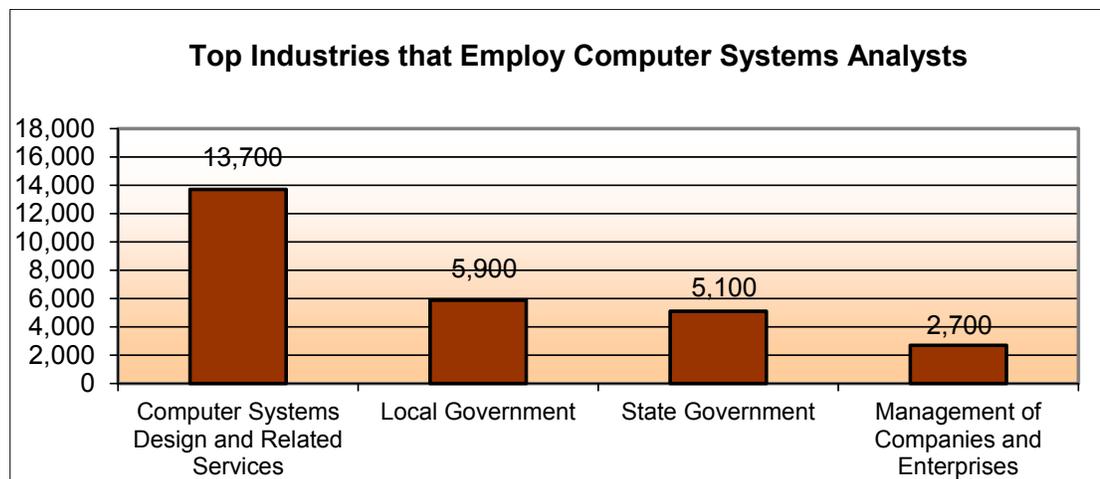
Est. # of Workers (2010-2020)	Numeric Change	Percent Change	Average Annual Job Openings	
61,200	72,100	10,900	17.8	2,250

Projections of Employment - California Short-Term

Est. # of Workers (2012-2014)	Numeric Change	Percent Change	Average Annual Job Openings	
64,800	68,200	3,400	5.2	2,790

Source: [EDD/LMID Projections of Employment by Occupation](#)

Top Industries that Employ this Occupation



Source: [CA Staffing Patterns](#)

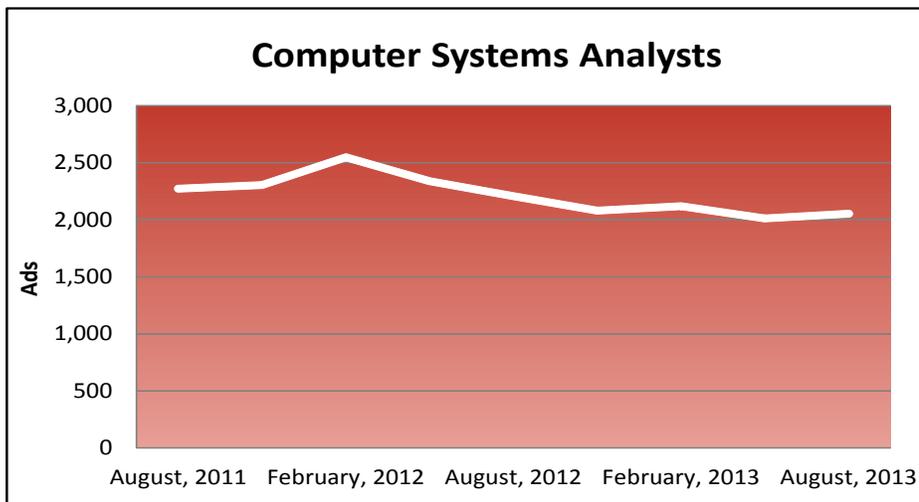
Computer Systems Analysts, cont.

Recent Job Openings for this Occupation

Month	Total Job Listings	Sample of Employers
July 2013	2,095	<ul style="list-style-type: none"> • IBM • Kaiser Permanente
August 2013	2,145	<ul style="list-style-type: none"> • IBM • Kforce Professional Staffing, Inc.
September 2013	2,046	<ul style="list-style-type: none"> • IBM • Randstad

Source: [The Conference Board Help Wanted Online™ \(HWOL\) data series - Hiring Demand Dashboard](#)

Regional 2-Year Online Job Ad Trend for this Occupation



Source: [The Conference Board Help Wanted Online™ \(HWOL\) data series - Hiring Demand Dashboard](#)

Regional Supply and Demand for this Occupation

Estimated Candidate Supply	19,000
Employers Hiring	468
# of Employers Who Have Hired in the Past Four Years	3,767
Average Posting Period	45 days

Source: [WANTED Analytics](#): Date accessed 9/30/13

Computer Systems Analysts, cont.

Important Knowledge, Skills, Abilities, and Work Activities

Knowledge	Description
Computers and Electronics	Knowledge of circuit boards, processors, chips, electronic equipment, and computer hardware and software, including applications and programming.
English Language	Knowledge of the structure and content of the English language including the meaning and spelling of words, rules of composition, and grammar.
Customer and Personal Service	Knowledge of principles and processes for providing customer and personal services. This includes customer needs assessment, meeting quality standards for services, and evaluation of customer satisfaction.
Skill	Description
Critical Thinking	Using logic and reasoning to identify the strengths and weaknesses of alternative solutions, conclusions or approaches to problems.
Active Listening	Giving full attention to what other people are saying, taking time to understand the points being made, asking questions as appropriate, and not interrupting at inappropriate times.
Reading Comprehension	Understanding written sentences and paragraphs in work related documents.
Ability	Description
Information Ordering	The ability to arrange things or actions in a certain order or pattern according to a specific rule or set of rules (e.g., patterns of numbers, letters, words, pictures, mathematical operations).
Oral Comprehension	The ability to listen to and understand information and ideas presented through spoken words and sentences.
Problem Sensitivity	The ability to tell when something is wrong or is likely to go wrong. It does not involve solving the problem, only recognizing there is a problem.
Work Activity	Description
Interacting With Computers	Using computers and computer systems (including hardware and software) to program, write software, set up functions, enter data, or process information.
Making Decisions and Solving Problems	Analyzing information and evaluating results to choose the best solution and solve problems.
Processing Information	Compiling, coding, categorizing, calculating, tabulating, auditing, or verifying information or data.

Source: Occupational Information Network ([O*NET](#))

Security and Fire Alarm Systems Installers

Description

Install, program, maintain, and repair security and fire alarm wiring and equipment. Ensure that work is in accordance with relevant codes.

Sample Job Titles

Alarm Technician, Service Technician, Installation Technician, Fire Alarm Technician, Security Technician, Security Installer, Electronic Security Technician, Fire and Sound Service Technician, Home Security Alarm Installer, Low Voltage Technician

Important Tasks

- Examine systems to locate problems such as loose connections or broken insulation.
- Test backup batteries, keypad programming, sirens, and all security features in order to ensure proper functioning, and to diagnose malfunctions.
- Mount and fasten control panels, door and window contacts, sensors, and video cameras, and attach electrical and telephone wiring in order to connect components.
- Install, maintain, or repair security systems, alarm devices, and related equipment, following blueprints of electrical layouts and building plans.
- Feed cables through access holes, roof spaces, and cavity walls to reach fixture outlets; then position and terminate cables, wires and strapping.

Job Fit

The job of Security and Fire Alarm Systems Installer may appeal to those who enjoy work activities that include practical, hands-on problems and solutions. This occupation also may appeal to those who like following set procedures and routines.

Education and Training Requirements

Typical Education Level: High school diploma or the equivalent and moderate-term on-the-job training. This is an occupation in which workers can develop skills needed to attain competency after a period of between 1 and 12 months of combined on-the-job experience and informal training.

Certification: Link to America's Career InfoNet Certification Finder at www.careerinfonet.org and type in the keywords "alarm installer" to find certification programs related to this occupation.

Security and Fire Alarm Systems Installers, cont.

2013 MedianWages

	Hourly	Annual
California	\$21.25	\$44,192
Los Angeles-Long Beach-Glendale MD	\$21.04	\$43,750
Oxnard-Thousand Oaks-Ventura MSA	\$19.03	\$39,571

Source: [Occupational Employment Statistics Survey 2013 1st Q](#)

Projections of Employment - California Long-Term

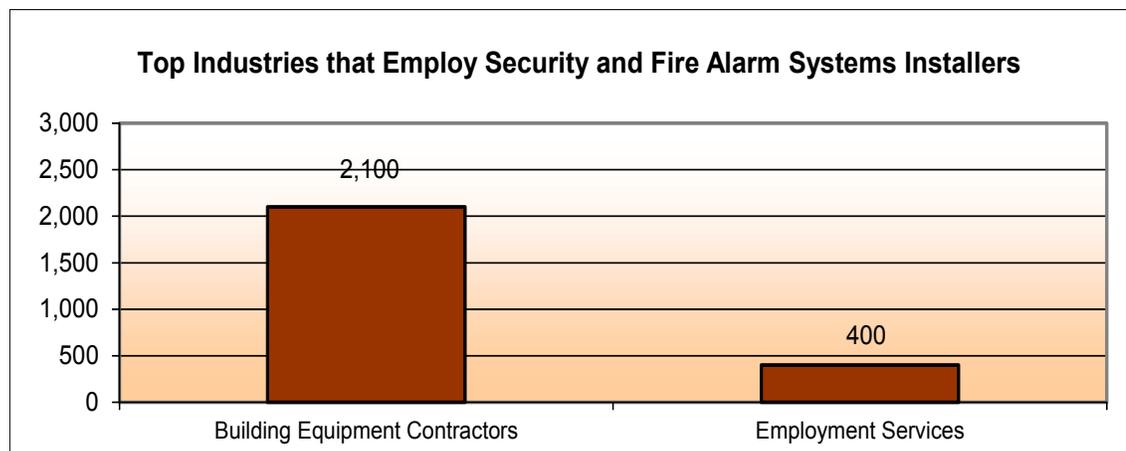
Est. # of Workers (2010-2020)		Numeric Change	Percent Change	Average Annual Job Openings
6,800	8,700	1,900	27.9	360

Projections of Employment - California Short-Term

Est. # of Workers (2012-2014)		Numeric Change	Percent Change	Average Annual Job Openings
7,400	7,800	400	5.4	410

Source: [EDD/LMID Projections of Employment by Occupation](#)

Top Industries that Employ this Occupation



Source: [CA Staffing Patterns](#)

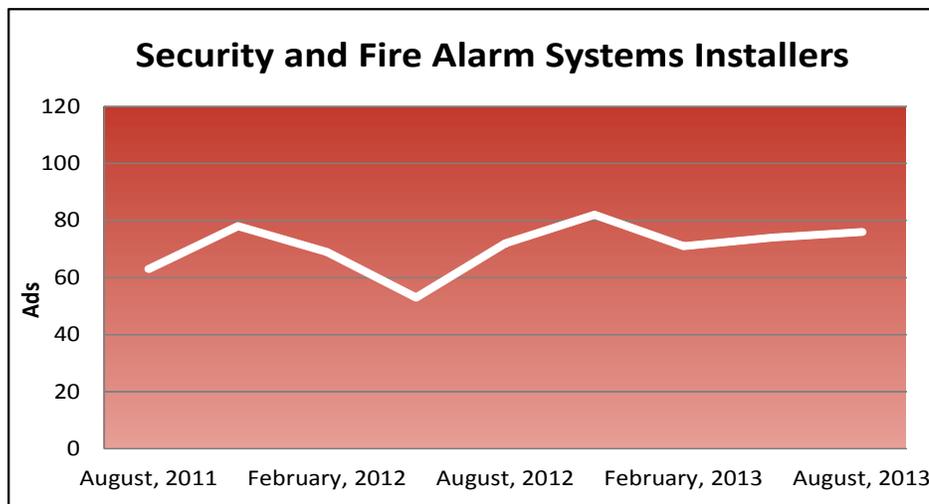
Security and Fire Alarm Systems Installers, cont.

Recent Job Openings for this Occupation

Month	Total Job Listings	Sample of Employers
July 2013	71	<ul style="list-style-type: none"> • ADT Security • SSD Systems
August 2013	99	<ul style="list-style-type: none"> • ADT Security • TEKsystems
September 2013	69	<ul style="list-style-type: none"> • SSD Systems • ADT Security

Source: [The Conference Board Help Wanted Online™ \(HWOL\) data series - Hiring Demand Dashboard](#)

Regional 2-Year Online Job Ad Trend for this Occupation



Source: [The Conference Board Help Wanted Online™ \(HWOL\) data series - Hiring Demand Dashboard](#)

Regional Supply and Demand for this Occupation

Estimated Candidate Supply	3,500
Employers Hiring	19
# of Employers Who Have Hired in the Past Four Years	119
Average Posting Period	41 days

Source: [WANTED Analytics](#): Date accessed 9/30/13

Security and Fire Alarm Systems Installers, cont.

Important Knowledge, Skills, Abilities, and Work Activities

Knowledge	Description
Computers and Electronics	Knowledge of circuit boards, processors, chips, electronic equipment, and computer hardware and software, including applications and programming.
Customer and Personal Service	Knowledge of principles and processes for providing customer and personal services. This includes customer needs assessment, meeting quality standards for services, and evaluation of customer satisfaction.
Public Safety and Security	Knowledge of relevant equipment, policies, procedures, and strategies to promote effective local, state, or national security operations for the protection of people, data, property, and institutions.
Skill	Description
Active Listening	Giving full attention to what other people are saying, taking time to understand the points being made, asking questions as appropriate, and not interrupting at inappropriate times.
Critical Thinking	Using logic and reasoning to identify the strengths and weaknesses of alternative solutions, conclusions or approaches to problems.
Operation Monitoring	Watching gauges, dials, or other indicators to make sure a machine is working properly.
Ability	Description
Problem Sensitivity	The ability to tell when something is wrong or is likely to go wrong. It does not involve solving the problem, only recognizing there is a problem.
Arm-Hand Steadiness	The ability to keep your hand and arm steady while moving your arm or while holding your arm and hand in one position.
Near Vision	The ability to see details at close range (within a few feet of the observer).
Work Activity	Description
Getting Information	Observing, receiving, and otherwise obtaining information from all relevant sources.
Inspecting Equipment, Structures, or Material	Inspecting equipment, structures, or materials to identify the cause of errors or other problems or defects.

Source: Occupational Information Network ([O*NET](#))

Telecommunications Equipment Installers and Repairers, Except Line Installers

Description

Install, set-up, rearrange, or remove switching, distribution, routing, and dialing equipment used in central offices or headends. Service or repair telephone, cable television, Internet, and other communications equipment on customers' property.

Sample Job Titles

Central Office Technician, Install / Repair Technician, Service Technician, Installer, Telecommunications Technician, Customer Service Technician (CST)

Important Tasks

- Note differences in wire and cable colors so that work can be performed correctly.
- Test circuits and components of malfunctioning telecommunications equipment to isolate sources of malfunctions, using test meters, circuit diagrams, polarity probes, and other hand tools.
- Test repaired, newly installed, or updated equipment to ensure that it functions properly and conforms to specifications, using test equipment and observation.
- Drive crew trucks to and from work areas.
- Inspect equipment on a regular basis in order to ensure proper functioning.

Job Fit

The job of Telecommunications Equipment Installer and Repairer may appeal to those who enjoy work activities that include practical, hands-on problems and solutions. This occupation also may appeal to those who like searching for facts and figuring out problems mentally.

Education and Training Requirements

Typical Education Level: Postsecondary non-degree award and moderate-term on-the-job training. This is an occupation in which workers can develop skills needed to attain competency after a period of between 1 and 12 months of combined on-the-job experience and informal training.

Certification: Link to America's Career InfoNet Certification Finder at www.careerinfonet.org and type in the keywords "telecommunications equipment installer" to find certification programs related to this occupation.

Telecommunications Equipment Installers and Repairers, Except Line Installers, cont.

2013 Median Wages

	Hourly	Annual
California	\$30.31	\$63,048
Los Angeles-Long Beach-Glendale MD	\$29.48	\$61,318
Oxnard-Thousand Oaks-Ventura MSA	\$29.93	\$62,253

Source: [Occupational Employment Statistics Survey 2013 1st Q](#)

Projections of Employment - California Long-Term

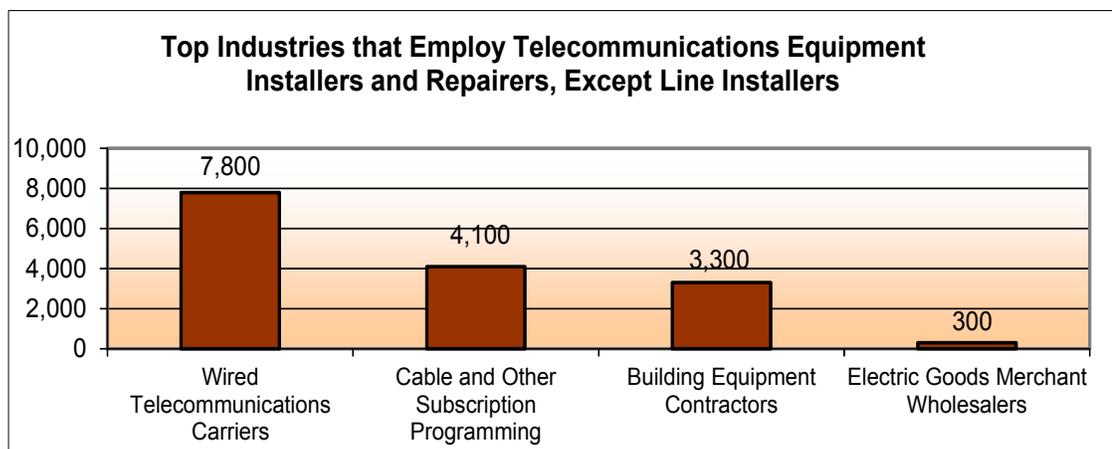
Est. # of Workers (2010-2020)	Numeric Change	Percent Change	Average Annual Job Openings
28,800	3,500	12.2	820

Projections of Employment - California Short-Term

Est. # of Workers (2012-2014)	Numeric Change	Percent Change	Average Annual Job Openings
27,900	-100	-0.4	470

Source: [EDD/LMID Projections of Employment by Occupation](#)

Top Industries that Employ this Occupation



Source: [CA Staffing Patterns](#)

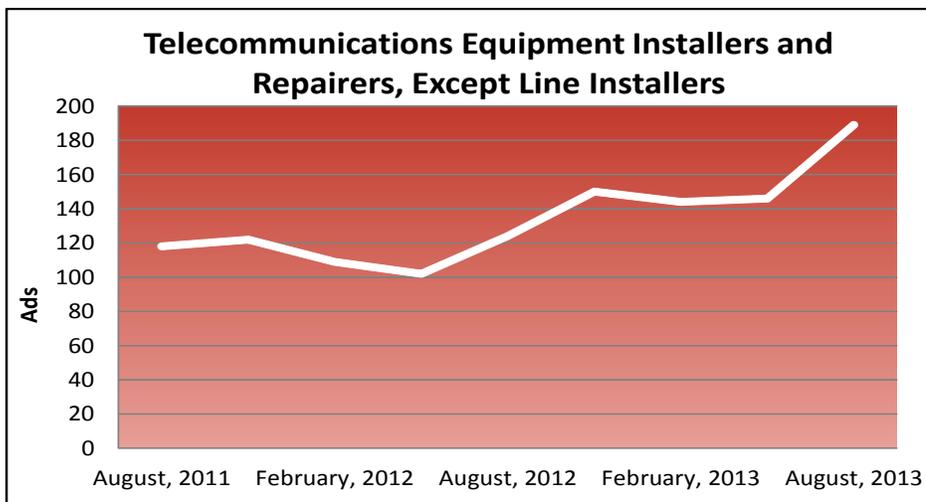
Telecommunications Equipment Installers and Repairers, Except Line Installers, cont.

Recent Job Openings for this Occupation

Month	Total Job Listings	Sample of Employers
July 2013	183	<ul style="list-style-type: none"> • AT&T • Charter Communications
August 2013	215	<ul style="list-style-type: none"> • AT&T • Charter Communications
September 2013	168	<ul style="list-style-type: none"> • Charter Communications • AT&T

Source: [The Conference Board Help Wanted Online™ \(HWOL\) data series - Hiring Demand Dashboard](#)

Regional 2-Year Online Job Ad Trend for this Occupation



Source: [The Conference Board Help Wanted Online™ \(HWOL\) data series - Hiring Demand Dashboard](#)

Regional Supply and Demand for this Occupation

Estimated Candidate Supply	12,000
Employers Hiring	36
# of Employers Who Have Hired in the Past Four Years	255
Average Posting Period	47 days

Source: [WANTED Analytics](#): Date accessed 9/30/13

Telecommunications Equipment Installers and Repairers, Except Line Installers, cont.

Important Knowledge, Skills, Abilities, and Work Activities

Knowledge	Description
Telecommunications	Knowledge of transmission, broadcasting, switching, control, and operation of telecommunications systems.
Computers and Electronics	Knowledge of circuit boards, processors, chips, electronic equipment, and computer hardware and software, including applications and programming.
Customer and Personal Service	Knowledge of principles and processes for providing customer and personal services. This includes customer needs assessment, meeting quality standards for services, and evaluation of customer satisfaction.
Skill	Description
Operation Monitoring	Watching gauges, dials, or other indicators to make sure a machine is working properly.
Quality Control Analysis	Conducting tests and inspections of products, services, or processes to evaluate quality or performance.
Troubleshooting	Determining causes of operating errors and deciding what to do about it.
Ability	Description
Finger Dexterity	The ability to make precisely coordinated movements of the fingers of one or both hands to grasp, manipulate, or assemble very small objects.
Manual Dexterity	The ability to quickly move your hand, your hand together with your arm, or your two hands to grasp, manipulate, or assemble objects.
Problem Sensitivity	The ability to tell when something is wrong or is likely to go wrong. It does not involve solving the problem, only recognizing there is a problem.
Work Activity	Description
Communicating with Persons Outside Organization	Communicating with people outside the organization, representing the organization to customers, the public, government, and other external sources. This information can be exchanged in person, in writing, or by telephone or e-mail.
Updating and Using Relevant Knowledge	Keeping up-to-date technically and applying new knowledge to your job.
Documenting/Recording Information	Entering, transcribing, recording, storing, or maintaining information in written or electronic/magnetic form.

Source: Occupational Information Network ([O*NET](#))

Telecommunications Line Installers and Repairers

Description

String and repair telephone and television cable, including fiber optics and other equipment for transmitting messages or television programming.

Sample Job Titles

Combination Technician, Service Technician, Installation and Repair Technician (I & R Technician), Cable Splicer, Cable Technician, Installer, Outside Plant Technician, Construction Technician, Construction Worker, Lineman

Important Tasks

- Travel to customers' premises to install, maintain, or repair audio and visual electronic reception equipment or accessories.
- Inspect or test lines or cables, recording and analyzing test results, to assess transmission characteristics and locate faults or malfunctions.
- Splice cables, using hand tools, epoxy, or mechanical equipment.
- Measure signal strength at utility poles, using electronic test equipment.
- Set up service for customers, installing, connecting, testing, or adjusting equipment.

Job Fit

For those who enjoy being outside, working closely with others in a team, and completing projects, the job of Telecommunications Line Installer and Repairer may be rewarding. This work would appeal to those who like practical, hands-on tasks, problem solving, and using a variety of tools and equipment.

Education and Training Requirements

Typical Education Level: High school diploma or the equivalent and long-term on-the-job training. This is an occupation in which workers can develop skills needed to attain competency after a period of 12 months or more of combined on-the-job experience and informal training.

Certification: Link to America's Career InfoNet Certification Finder at www.careerinfonet.org and type in the keywords "line installer and repairer" to find certification programs related to this occupation.

Telecommunications Line Installers and Repairers, cont.

2013 Median Wages

	Hourly	Annual
California	\$31.17	\$64,844
Los Angeles County	\$29.57	\$61,518
Ventura County	N/A	N/A

Source: [Occupational Employment Statistics Survey 2013 1st Q](#)

Projections of Employment - California Long-Term

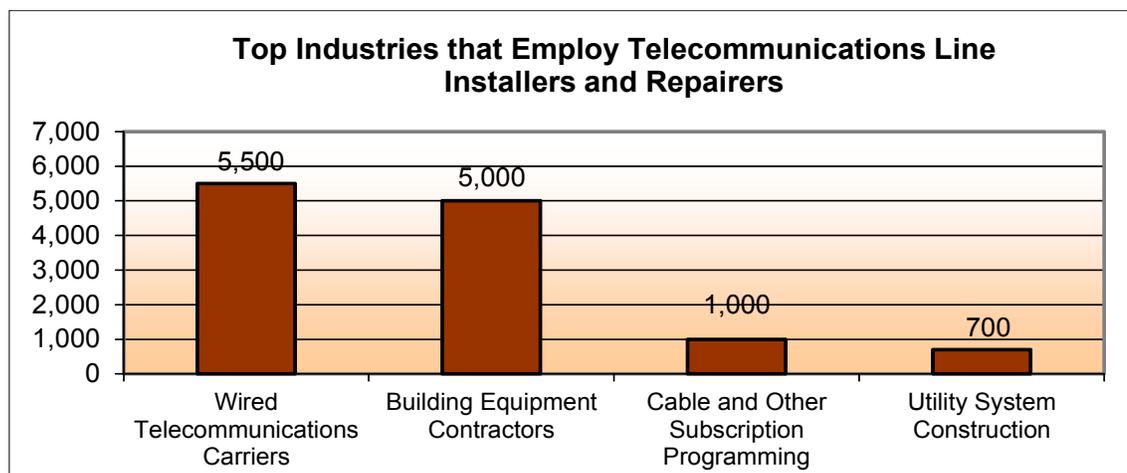
Est. # of Workers (2010-2020)		Numeric Change	Percent Change	Average Annual Job Openings
17,600	19,800	2,200	12.5	540

Projections of Employment - California Short-Term

Est. # of Workers (2012-2014)		Numeric Change	Percent Change	Average Annual Job Openings
17,800	18,300	500	2.8	550

Source: [EDD/LMID Projections of Employment by Occupation](#)

Top Industries that Employ this Occupation



Source: [CA Staffing Patterns](#)

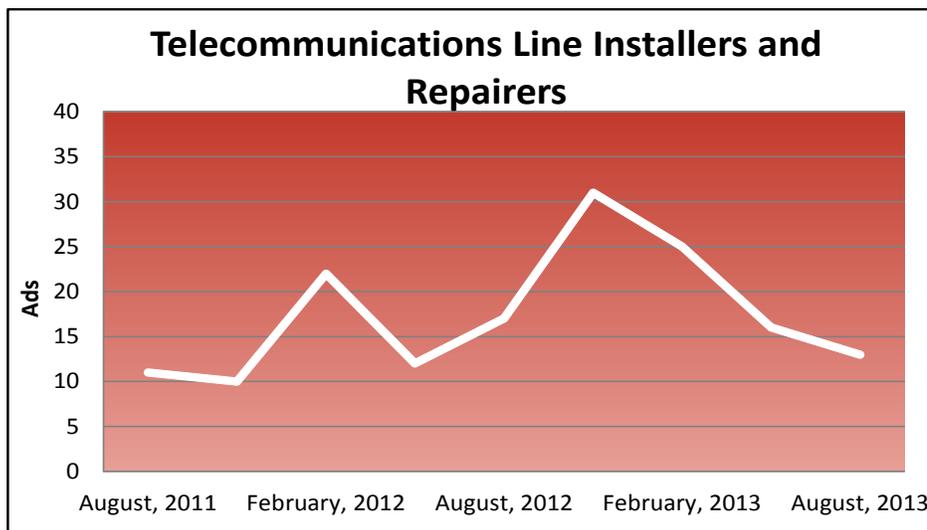
Telecommunications Line Installers and Repairers, cont.

Recent Job Openings for this Occupation

Month	Total Job Listings	Sample of Employers
July 2013	12	• Utiliquest
August 2013	15	• Utiliquest • United Airlines
September 2013	18	• Wise Connect Inc • RWM Fiber Optics

Source: [The Conference Board Help Wanted Online™ \(HWOL\) data series - Hiring Demand Dashboard](#)

Regional 2-Year Online Job Ad Trend for this Occupation



Source: [The Conference Board Help Wanted Online™ \(HWOL\) data series - Hiring Demand Dashboard](#)

Regional Supply and Demand for this Occupation

Estimated Candidate Supply	7,900
Employers Hiring	2
# of Employers Who Have Hired in the Past Four Years	35
Average Posting Period	43 days

Source: [WANTED Analytics](#): Date accessed 9/30/13

Telecommunications Line Installers and Repairers, cont.

Important Knowledge, Skills, Abilities, and Work Activities

Knowledge	Description
Telecommunications	Knowledge of transmission, broadcasting, switching, control, and operation of telecommunications systems.
Customer and Personal Service	Knowledge of principles and processes for providing customer and personal services. This includes customer needs assessment, meeting quality standards for services, and evaluation of customer satisfaction.
Computers and Electronics	Knowledge of circuit boards, processors, chips, electronic equipment, and computer hardware and software, including applications and programming.
Skill	Description
Active Listening	Giving full attention to what other people are saying, taking time to understand the points being made, asking questions as appropriate, and not interrupting at inappropriate times.
Critical Thinking	Using logic and reasoning to identify the strengths and weaknesses of alternative solutions, conclusions or approaches to problems.
Operation and Control	Controlling operations of equipment or systems.
Ability	Description
Oral Comprehension	The ability to listen to and understand information and ideas presented through spoken words and sentences.
Oral Expression	The ability to communicate information and ideas in speaking so others will understand.
Arm-Hand Steadiness	The ability to keep your hand and arm steady while moving your arm or while holding your arm and hand in one position.
Work Activity	Description
Operating Vehicles, Mechanized Devices, or Equipment	Running, maneuvering, navigating, or driving vehicles or mechanized equipment, such as forklifts, passenger vehicles, aircraft, or water craft.
Handling and Moving Objects	Using hands and arms in handling, installing, positioning, and moving materials, and manipulating things.
Performing General Physical Activities	Performing physical activities that require considerable use of your arms and legs and moving your whole body, such as climbing, lifting, balancing, walking, stooping, and handling of materials.

Source: Occupational Information Network ([O*NET](#))