

### Sample Military Occupational Classifications

- 251A - Information Systems Technician (Army)
- 275 - Information Systems Technician (Coast Guard)
- IT - Information Systems Technician (Navy)

This packet is designed for men and women in Information Technology 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:

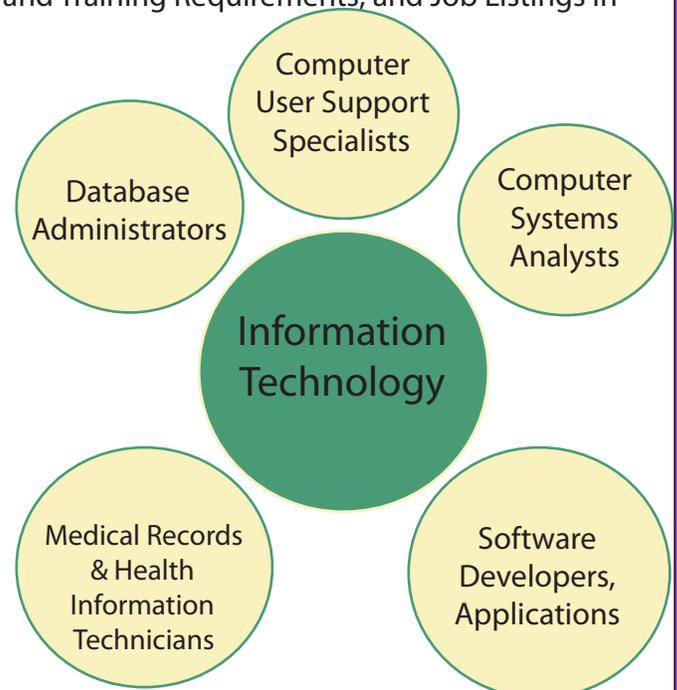
- Profile of current military occupation, with Top 7 important Duties and Top 3 pertinent Knowledges, Skills, Abilities, and Work Activities.
- Profiles of the most closely related civilian occupations identified, with Top 5 important Tasks; Top 3 pertinent Knowledges, Skills, Abilities, and Work Activities; 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](http://www.labormarketinfo.edd.ca.gov)



## Information Technology, cont.

### Description

Direct and coordinate production activities of electronic data processing element or unit, including functional or machine design applications, programming, or operation of automatic data processing (ADP) equipment; analyze, plan, and manage the development, test, evaluation, and modification of automatic data processing systems; plan and coordinate activities of data processing personnel engaged in programming and debugging programs; establish work standards; supervise coding and machine processing of data; develop training programs; interpret policies, purposes, and goals of ADP activity for subordinates; participate in decisions regarding personnel staffing, allocation of ADP resources, and equipment acquisition.

### Important Duties

- Manage personnel and information system assets associated with Automation Battlefield Computer Systems (ABCS), Automated Information Systems (AIS), and Internet Protocol (IP) Local Area Networks (LANs)
- Develop software installation plans.
- Plan and develop Information Systems Life Cycle Management.
- Conduct systems analysis, design, development, implementation, and acceptance testing.
- Create and implement Information Assurance Plans.
- Design and implement ABCS/AIS LANs into tactical environments.
- Performs systems administration and LAN administration of tactical ABCS/AIS.

### Important Knowledge, Skills, Abilities, and Work Activities

Knowledge	Skills
Computers and Electronics	Programming
English Language	Critical Thinking
Customer and Personal Service	Complex Problem Solving
Abilities	Work Activities
Information Ordering	Interacting With Computers
Written Comprehension	Making Decisions and Solving Problems
Oral Comprehension	Processing Information

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](http://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
Fresno MSA	\$34.88	\$72,540
Riverside-San Bernardino-Ontario MSA	\$36.38	\$75,663
San Diego-Carlsbad-San Marcos MSA	\$39.86	\$82,893
Santa Ana-Anaheim-Irvine MD	\$41.59	\$86,512

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

### Projections of Employment - California Long-Term

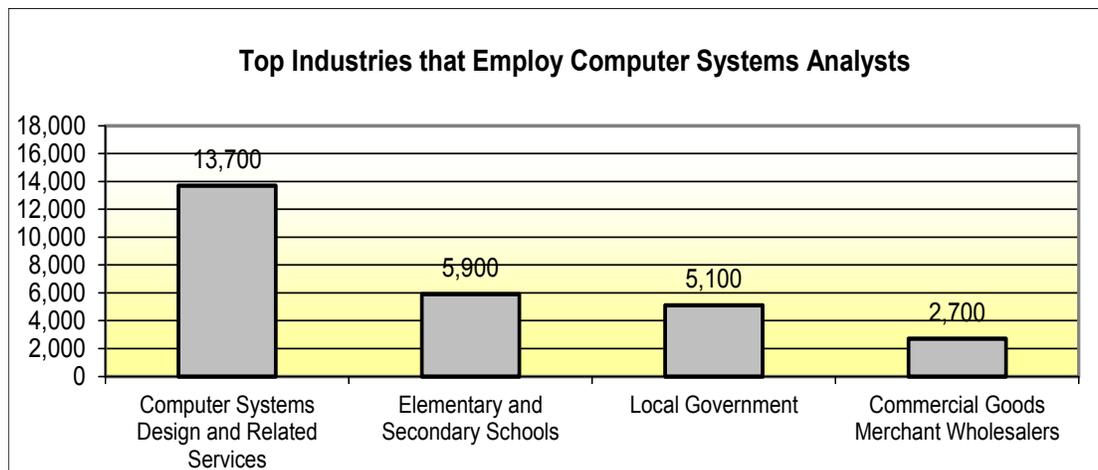
Est. # of Workers (2010-2020)		Numeric Change	Percent Change	Average Annual Job Openings
61,200	72,100	10,900	17.8	2,250

### 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](#)

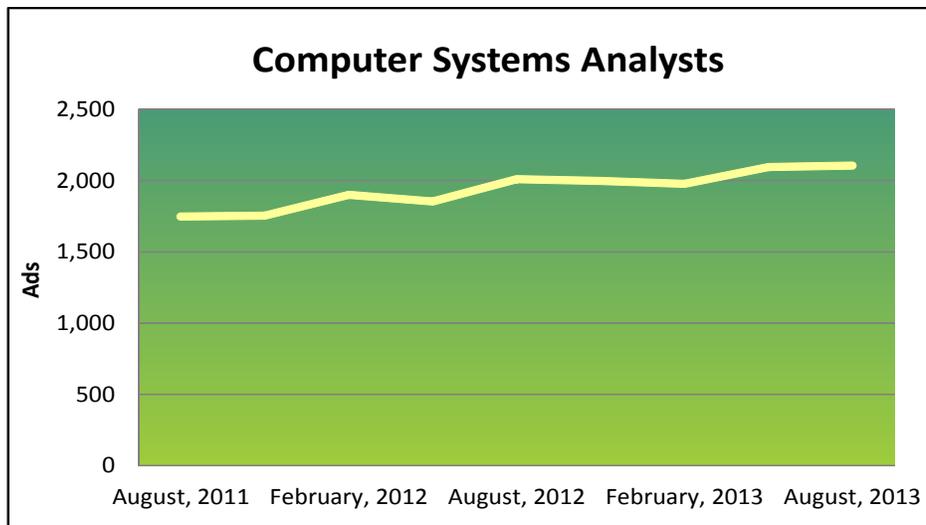
## Computer Systems Analysts, cont.

### Recent Job Openings for this Occupation

Month	Total Job Listings	Top Counties Reporting	Sample of Employers
July 2013	1,889	<ul style="list-style-type: none"> <li>• Orange</li> <li>• San Diego</li> </ul>	<ul style="list-style-type: none"> <li>• Qualcomm</li> <li>• United Health Group</li> </ul>
August 2013	2,005	<ul style="list-style-type: none"> <li>• Orange</li> <li>• San Diego</li> </ul>	<ul style="list-style-type: none"> <li>• Qualcomm</li> <li>• Kforce Professional Staffing, Inc.</li> </ul>
September 2013	1,884	<ul style="list-style-type: none"> <li>• Orange</li> <li>• San Diego</li> </ul>	<ul style="list-style-type: none"> <li>• United Health Group</li> <li>• Qualcomm</li> </ul>

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	27,000
Employers Hiring	499
# of Employers Who Have Hired in the Past Four Years	4,026
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](#))

## Computer User Support Specialists

### Description

Provide technical assistance to computer users. Answer questions or resolve computer problems for clients in person, via telephone or electronically. May provide assistance concerning the use of computer hardware and software, including printing, installation, word processing, electronic mail, and operating systems.

### Sample Job Titles

Information Technology Specialist (IT Specialist), Support Specialist, Computer Technician, Technical Support Specialist, Help Desk Analyst

### Important Tasks

- Oversee the daily performance of computer systems.
- Answer user inquiries regarding computer software or hardware operation to resolve problems.
- Enter commands and observe system functioning to verify correct operations and detect errors.
- Set up equipment for employee use, performing or ensuring proper installation of cables, operating systems, or appropriate software.
- Install and perform minor repairs to hardware, software, or peripheral equipment, following design or installation specifications.

### Job Fit

The job of Computer User Support Specialist may appeal to those who enjoy activities that involve working with ideas and require an extensive amount of thinking. This occupation involves searching for facts and figuring out problems.

### Education and Training Requirements

Typical Education Level: Associate degree. Occupations that require the completion of at least two years of full-time academic study beyond high school.

Certification: Link to America's Career InfoNet Certification Finder at [www.careerinfonet.org](http://www.careerinfonet.org) and type in the keywords "computer support specialist" to find certification programs related to this occupation.

## Computer User Support Specialists, cont.

### 2013 Median Wages

	Hourly	Annual
California	\$25.63	\$53,306
Fresno MSA	\$21.14	\$43,987
Riverside-San Bernardino-Ontario MSA	\$23.05	\$47,952
San Diego-Carlsbad-San Marcos MSA	\$22.17	\$46,101
Santa Ana-Anaheim-Irvine MD	\$26.64	\$55,408

*Source: Occupational Employment Statistics Survey 2013 1st Q*

*Note: This occupations was affected by occupational coding changes. Wages shown reflect Computer Support Specialists, SOC 15-1151.*

### Projections of Employment - California Long-Term

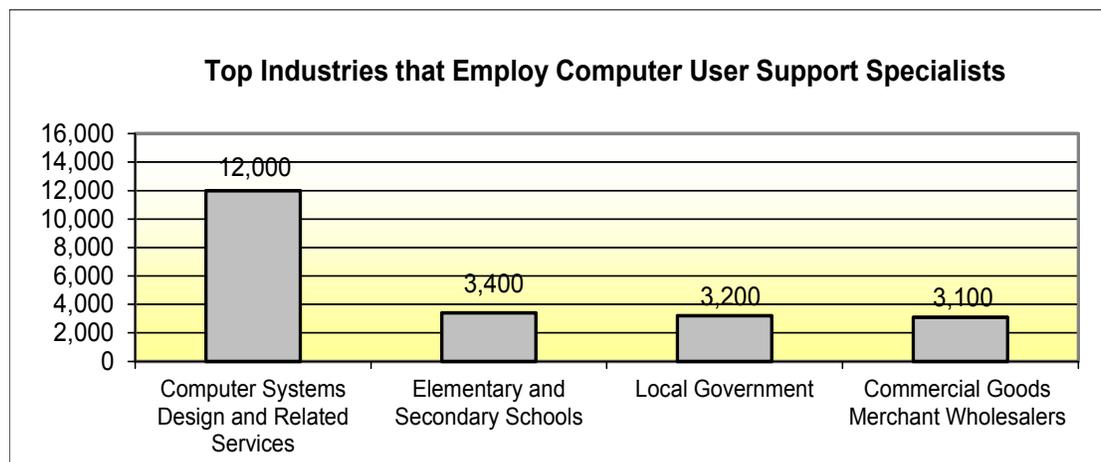
Est. # of Workers (2010-2020)		Numeric Change	Percent Change	Average Annual Job Openings
69,500	82,400	12,900	18.6	3,120

### Projections of Employment - California Short-Term

Est. # of Workers (2012-2014)		Numeric Change	Percent Change	Average Annual Job Openings
73,500	77,500	4,000	5.4	3,830

*Source: EDD/LMID Projections of Employment by Occupation*

### Top Industries that Employ this Occupation



*Source: CA Staffing Patterns*

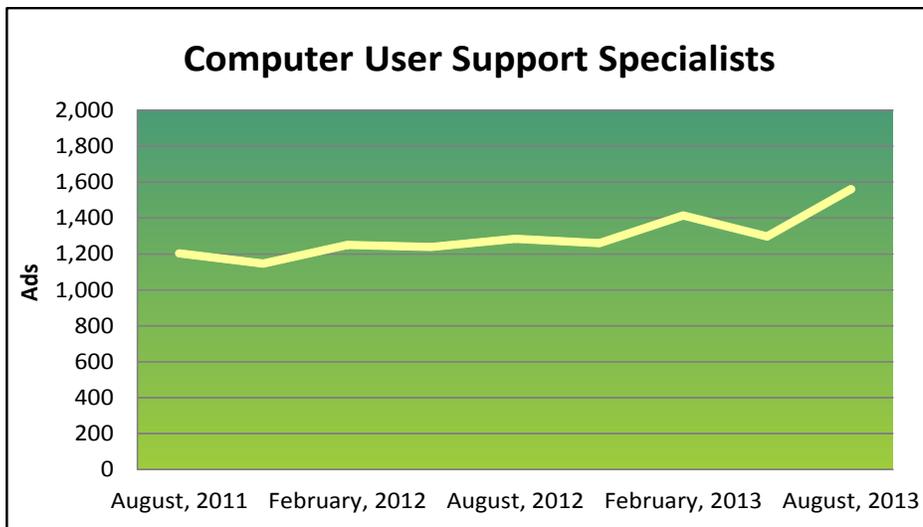
## Computer User Support Specialists, cont.

### Recent Job Openings for this Occupation

Month	Total Job Listings	Top Counties Reporting	Sample of Employers
July 2013	2,177	<ul style="list-style-type: none"> <li>• San Diego</li> <li>• Orange</li> </ul>	<ul style="list-style-type: none"> <li>• JC Penney</li> <li>• Kforce Professional Staffing, Inc.</li> </ul>
August 2013	2,182	<ul style="list-style-type: none"> <li>• San Diego</li> <li>• Orange</li> </ul>	<ul style="list-style-type: none"> <li>• Smartsources</li> <li>• JC Penney</li> </ul>
September 2013	2,066	<ul style="list-style-type: none"> <li>• San Diego</li> <li>• Orange</li> </ul>	<ul style="list-style-type: none"> <li>• SAIC</li> <li>• SERCO Inc.</li> </ul>

*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	35,000
Employers Hiring	545
# of Employers Who Have Hired in the Past Four Years	4,425
Average Posting Period	41 days

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

## Computer User Support Specialists, 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.
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.
Speaking	Talking to others to convey information effectively.
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.
Written Comprehension	The ability to read and understand information and ideas presented in writing.
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.
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](#))

## Database Administrators

### Description

Administer, test, and implement computer databases, applying knowledge of database management systems. Coordinate changes to computer databases. May plan, coordinate, and implement security measures to safeguard computer databases.

### Sample Job Titles

Database Analyst, Database Administration Manager, Database Coordinator, Database Programmer, Information Systems Manager, Management Information Systems Director

### Important Tasks

- Test programs or databases, correct errors and make necessary modifications.
- Modify existing databases and database management systems or direct programmers and analysts to make changes.
- Plan, coordinate and implement security measures to safeguard information in computer files against accidental or unauthorized damage, modification or disclosure.
- Work as part of a project team to coordinate database development and determine project scope and limitations.
- Write and code logical and physical database descriptions and specify identifiers of database to management system or direct others in coding descriptions.

### Job Fit

The job of Database Administrator may appeal to those who enjoy activities that involve working with ideas and that require an extensive amount of thinking. The Database Administration 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 and one to five years of related work experience.

Certification: Link to America's Career InfoNet Certification Finder at [www.careerinfonet.org](http://www.careerinfonet.org) and type in the keywords "database administrator" to find certification programs related to this occupation.

# Database Administrators, cont.

## 2013 Median Wages

	Hourly	Annual
California	\$40.84	\$84,951
Fresno MSA	\$28.12	\$58,486
Riverside-San Bernardino-Ontario MSA	\$37.11	\$77,185
San Diego-Carlsbad-San Marcos MSA	\$40.90	\$85,079
Santa Ana-Anaheim-Irvine MD	\$39.90	\$82,982

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

## Projections of Employment - California Long-Term

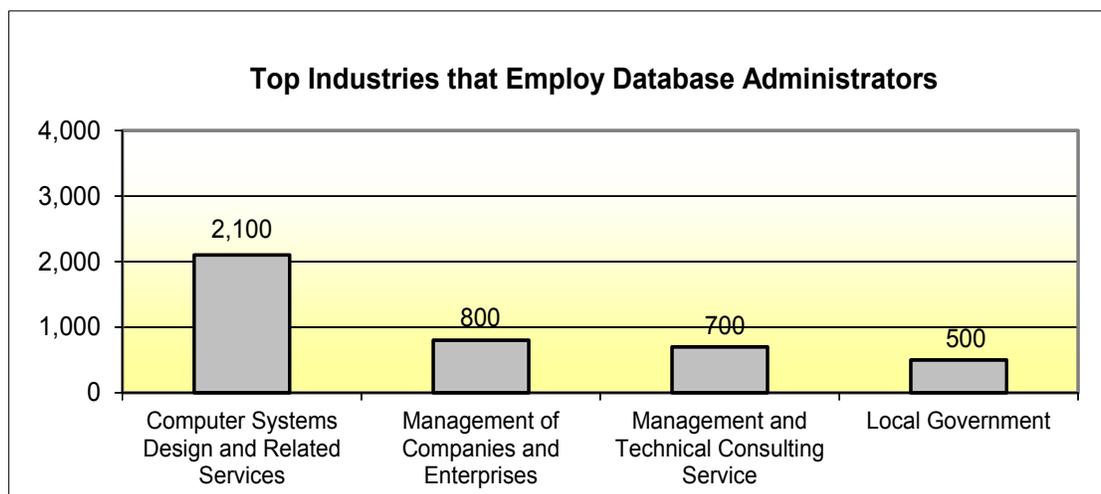
Est. # of Workers (2010-2020)		Numeric Change	Percent Change	Average Annual Job Openings
11,200	14,800	3,600	32.1	550

## Projections of Employment - California Short-Term

Est. # of Workers (2012-2014)		Numeric Change	Percent Change	Average Annual Job Openings
12,000	12,700	700	5.8	560

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

## Top Industries that Employ this Occupation



Source: [CA Staffing Patterns](#)

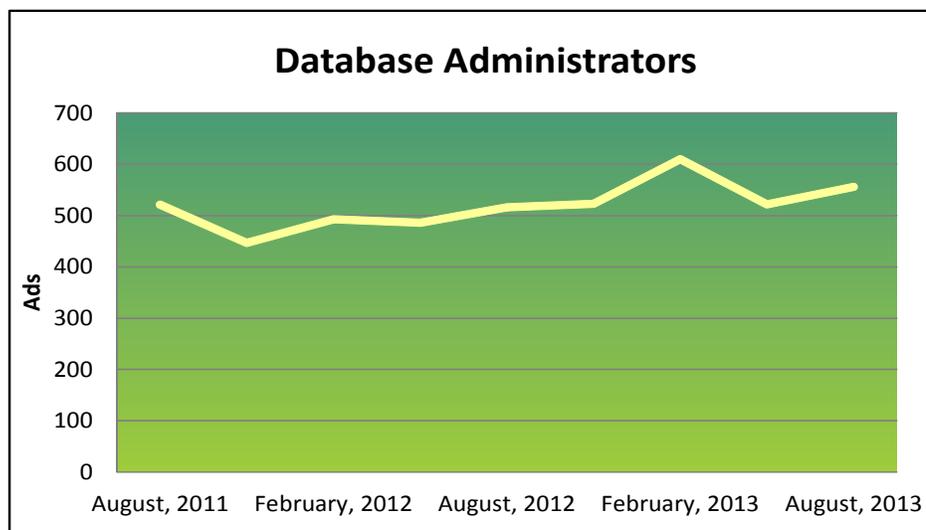
## Database Administrators, cont.

### Recent Job Openings for this Occupation

Month	Total Job Listings	Top Counties Reporting	Sample of Employers
July 2013	559	<ul style="list-style-type: none"> <li>San Diego</li> <li>Orange</li> </ul>	<ul style="list-style-type: none"> <li>Robert Half International</li> <li>Kforce Professional Staffing, Inc.</li> </ul>
August 2013	590	<ul style="list-style-type: none"> <li>San Diego</li> <li>Orange</li> </ul>	<ul style="list-style-type: none"> <li>Kforce Professional Staffing, Inc.</li> <li>Robert Half International</li> </ul>
September 2013	549	<ul style="list-style-type: none"> <li>Orange</li> <li>San Diego</li> </ul>	<ul style="list-style-type: none"> <li>TEKsystems</li> <li>Kforce Professional Staffing, Inc.</li> </ul>

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	5,800
Employers Hiring	169
# of Employers Who Have Hired in the Past Four Years	1,976
Average Posting Period	39 days

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

## Database Administrators, 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.
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
Complex Problem Solving	Identifying complex problems and reviewing related information to develop and evaluate options and implement solutions.
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.
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.
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).
Deductive Reasoning	The ability to apply general rules to specific problems to produce answers that make sense.
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.
Analyzing Data or Information	Identifying the underlying principles, reasons, or facts of information by breaking down information or data into separate parts.

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, Medical Records Technician, Office Manager, File Clerk, Medical Records Coordinator, Medical Records Analyst

### 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 Medical Record and 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](http://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
Fresno MSA	\$14.47	\$30,110
Riverside-San Bernardino-Ontario MSA	\$18.89	\$39,290
San Diego-Carlsbad-San Marcos MSA	\$18.79	\$39,097
Santa Ana-Anaheim-Irvine MD	\$19.83	\$41,234

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

### Projections of Employment - California Long-Term

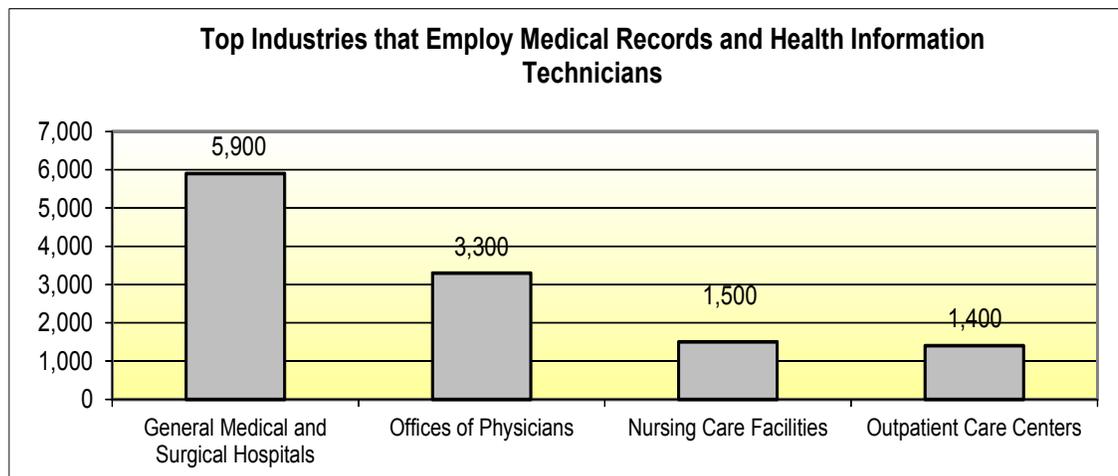
Est. # of Workers (2010-2020)		Numeric Change	Percent Change	Average Annual Job Openings
17,400	20,700	3,300	19.0	680

### 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](#)

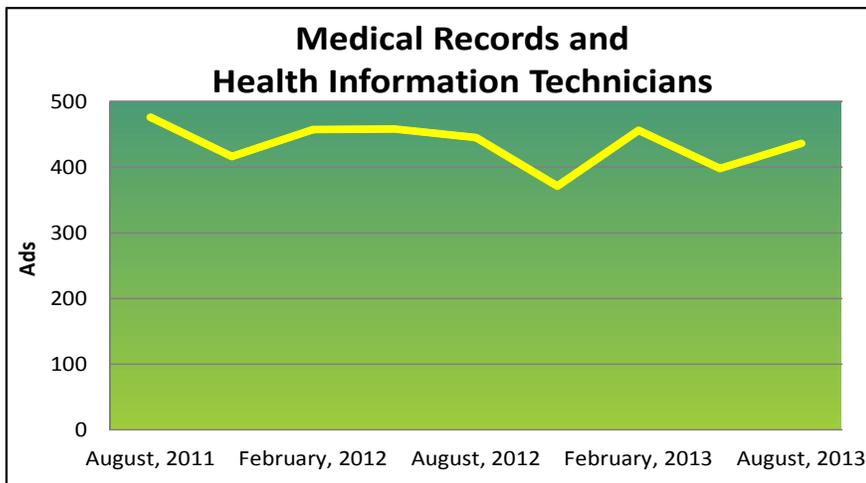
## Medical Records and Health Information Technicians, cont.

### Recent Job Openings for this Occupation

Month	Total Job Listings	Top Counties Reporting	Sample of Employers
July 2013	444	<ul style="list-style-type: none"> <li>Orange</li> <li>San Diego</li> </ul>	<ul style="list-style-type: none"> <li>HRAA/HR AdminAssist</li> <li>United Health Group</li> </ul>
August 2013	462	<ul style="list-style-type: none"> <li>Orange</li> <li>San Diego</li> </ul>	<ul style="list-style-type: none"> <li>HRAA/HR AdminAssist</li> <li>United Health Group</li> </ul>
September 2013	449	<ul style="list-style-type: none"> <li>Orange</li> <li>San Diego</li> </ul>	<ul style="list-style-type: none"> <li>Precyse</li> <li>United Health Group</li> </ul>

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	116
# of Employers Who Have Hired in the Past Four Years	928
Average Posting Period	49 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](#))

## Software Developers, Applications

### Description

Develop, create, and modify general computer applications software or specialized utility programs. Analyze user needs and develop software solutions. Design software or customize software for client use with the aim of optimizing operational efficiency. May analyze and design databases within an application area, working individually or coordinating database development as part of a team.

### Sample Job Titles

Software Engineer, Application Integration Engineer, Programmer Analyst, Software Development Engineer, Computer Consultant, Software Architect

### Important Tasks

- Modify existing software to correct errors, allow it to adapt to new hardware, or to improve its performance.
- Develop and direct software system testing and validation procedures, programming, and documentation.
- Confer with systems analysts, engineers, programmers and others to design system and to obtain information on project limitations and capabilities, performance requirements and interfaces.
- Analyze user needs and software requirements to determine feasibility of design within time and cost constraints.
- Design, develop and modify software systems, using scientific analysis and mathematical models to predict and measure outcome and consequences of design.

### Job Fit

The job of Applications Software Developer may appeal to those who enjoy activities that involve working with ideas and require an extensive amount of thinking. The Applications Software Developer occupation involves 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](http://www.careerinfonet.org) and type in the keywords "application software engineer" to find certification programs related to this occupation.

## Software Developers, Applications, cont.

### 2013 Median Wages

	Hourly	Annual
California	\$49.96	\$103,916
Fresno MSA	\$36.59	\$76,114
Riverside-San Bernardino-Ontario MSA	\$42.76	\$88,932
San Diego-Carlsbad-San Marcos MSA	\$47.38	\$98,548
Santa Ana-Anaheim-Irvine MD	\$48.45	\$100,774

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

### Projections of Employment - California Long-Term

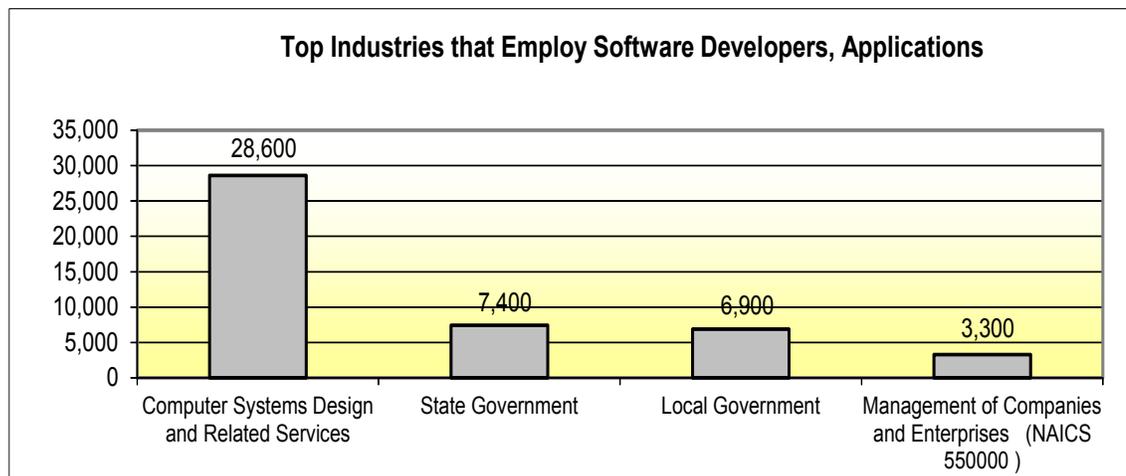
Est. # of Workers (2010-2020)		Numeric Change	Percent Change	Average Annual Job Openings
88,700	113,300	24,600	27.7	3,380

### Projections of Employment - California Short-Term

Est. # of Workers (2012-2014)		Numeric Change	Percent Change	Average Annual Job Openings
98,100	105,100	7,000	7.1	4,320

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

### Top Industries that Employ this Occupation



*Source: [CA Staffing Patterns](#)*

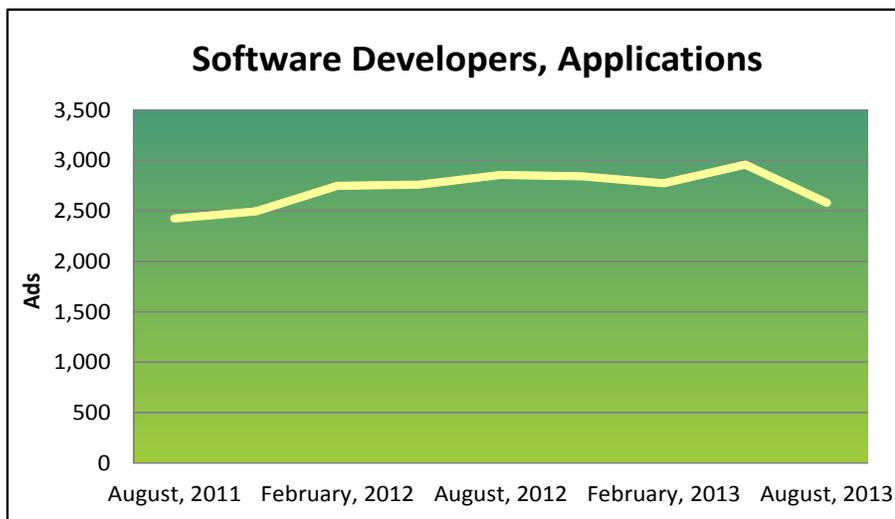
## Software Developers, Applications, cont.

### Recent Job Openings for this Occupation

Month	Total Job Listings	Top Counties Reporting	Sample of Employers
July 2013	2,688	<ul style="list-style-type: none"> <li>San Diego</li> <li>Orange</li> </ul>	<ul style="list-style-type: none"> <li>Qualcomm</li> <li>Kforce Professional Staffing, Inc.</li> </ul>
August 2013	2,651	<ul style="list-style-type: none"> <li>San Diego</li> <li>Orange</li> </ul>	<ul style="list-style-type: none"> <li>Qualcomm</li> <li>Kforce Professional Staffing, Inc.</li> </ul>
September 2013	2,619	<ul style="list-style-type: none"> <li>San Diego</li> <li>Orange</li> </ul>	<ul style="list-style-type: none"> <li>Qualcomm</li> <li>ViaSat</li> </ul>

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	36,000
Employers Hiring	558
# of Employers Who Have Hired in the Past Four Years	4,201
Average Posting Period	48 days

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

## Software Developers, Applications, 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.
Mathematics	Knowledge of arithmetic, algebra, geometry, calculus, statistics, and their applications.
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
Complex Problem Solving	Identifying complex problems and reviewing related information to develop and evaluate options and implement solutions.
Programming	Writing computer programs for various purposes.
Systems Analysis	Determining how a system should work and how changes in conditions, operations, and the environment will affect outcomes.
Ability	Description
Deductive Reasoning	The ability to apply general rules to specific problems to produce answers that make sense.
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.
Inductive Reasoning	The ability to combine pieces of information to form general rules or conclusions (includes finding a relationship among seemingly unrelated events).
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.
Thinking Creatively	Developing, designing, or creating new applications, ideas, relationships, systems, or products, including artistic contributions.
Making Decisions and Solving Problems	Analyzing information and evaluating results to choose the best solution and solve problems.

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

