

Computer User Support Specialists

Labor Market Analysis: San Diego County

April 2019

Summary

- Do not Proceed
- Proceed with Caution
- Proceed

**PROCEED WITH
NEW PROGRAM?**



**SUPPLY
GAP?**



**AT OR ABOVE
THE LIVING WAGE**

- Bachelor's Degree+
- Associate Degree
- Some College or Certificate
- High School Diploma or Equivalent
- Less than a HS Diploma
- Apprenticeship

**EXPECTED LEVEL
OF EDUCATION**



High



Medium



Low

**NUMBER OF
INSTITUTIONS THAT
PROVIDE TRAINING**



High



Medium



Low

**NUMBER OF ANNUAL
JOB OPENINGS**

According to available labor market information, there is a demand for *Computer User Support Specialists* in San Diego County. *Computer User Support Specialists* have a labor market demand of 549 annual job openings, while average demand for an occupation in San Diego County is 277 annual job openings. Eleven educational institutions in San Diego County supply 271 awards for this occupation, suggesting that there is a supply gap. However, this supply number does not include people currently in the labor force looking for work as *Computer User Support Specialists*. This occupation's entry-level and median wages are higher than the Self-Sufficiency Standard, suggesting that students who successfully complete a program and obtain employment in a related field may earn living wages.

Introduction

This report provides labor market information in San Diego County for the following occupational code in the Standard Occupational Classification (SOC)¹ system:

Computer User Support Specialists (SOC 15-1151): Provide technical assistance to computer users.

Answer questions or resolve computer problems for clients in person, or 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 reported job titles

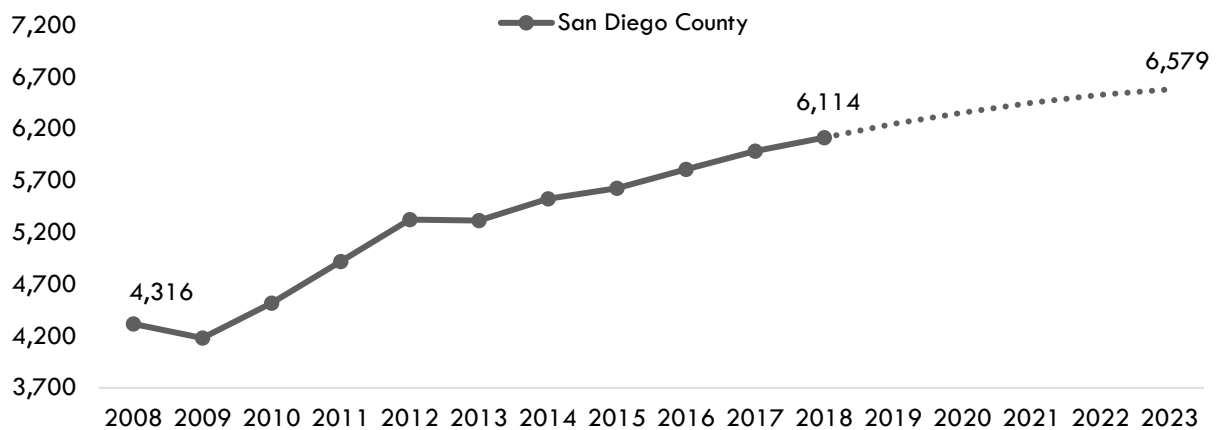
include:

- Help Desk Technician
- Technical Support Specialist
- Technical Support Representative
- Desktop Support Specialist
- Information Technology Technician
- Help Desk Analyst
- PC Technician
- PC Tech
- Information Technology Support Specialist

Projected Occupational Demand

Between 2018 and 2023, the number of *Computer User Support Specialists* is projected to increase by **465** jobs or **eight** percent (Exhibit 1). Employers in San Diego County will need to hire **549** workers annually to fill new jobs and backfill jobs due to attrition caused by turnover and retirement, for example.

Exhibit 1: Number of Jobs for Computer User Support Specialists (2008-2023)²



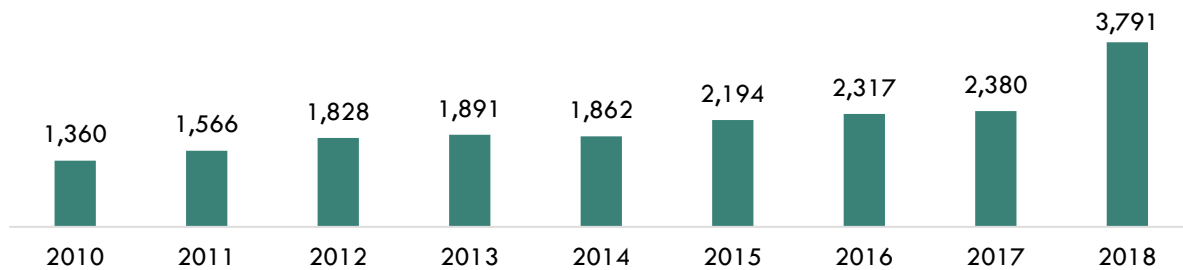
¹ The Standard Occupational Classification (SOC) system is used by federal statistical agencies to classify workers into occupational categories for the purpose of collecting, calculating or disseminating data. [bls.gov/soc](https://www.bls.gov/soc/).

² Emsi 2019.01; QCEW, Non-QCEW, Self-Employed.

Online Job Postings

Between 2010 and 2018, there was an average of 2,132 online job postings per year for *Computer User Support Specialists* in San Diego County (Exhibit 2).

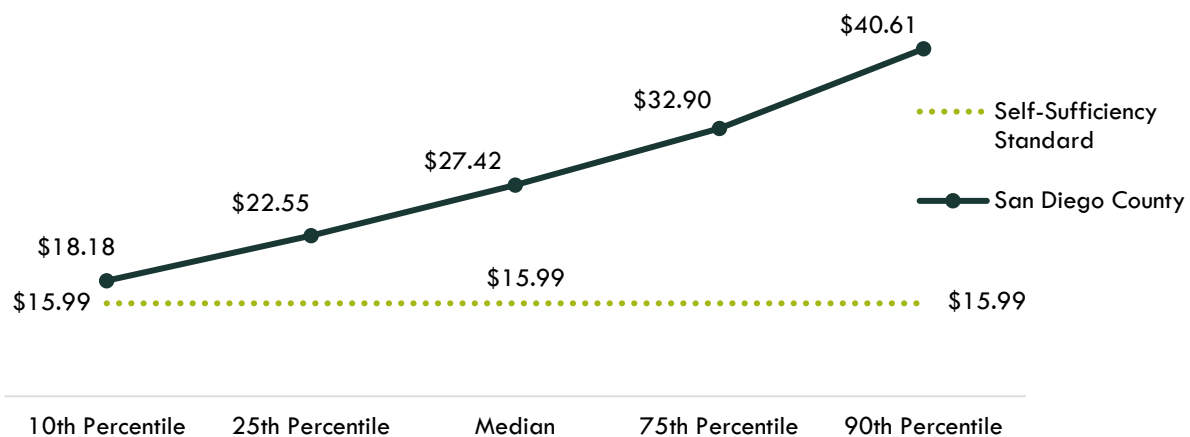
Exhibit 2: Number of Online Job Postings for *Computer User Support Specialists* in San Diego County (2010-2018)³



Earnings

The median hourly earnings for *Computer User Support Specialists* is \$27.42. This is more than the Self-Sufficiency Standard for a single adult in San Diego County, which is \$15.99 per hour (Exhibit 3).⁴

Exhibit 3: Hourly Earnings⁵ for *Computer User Support Specialists* in San Diego County⁶



³ Burning Glass Technologies, "Labor Insight Real-Time Labor Market Information Tool." 2010-2018.

⁴ The self-sufficiency wage in San Diego for one adult is \$15.99 (insightcced.org/2018-self-sufficiency-standard).

⁵ 10th and 25th percentiles could be considered entry-level wages, and 75th and 90th percentiles could be considered experienced wages for individuals who may have been in the occupation longer, received more training than others, etc.

⁶ Source: Emsi 2019.01; QCEW, Non-QCEW, Self-Employed.

Educational Supply

Educational supply for an occupation can be estimated by analyzing the number of awards in related Taxonomy of Programs (TOP) or Classification of Instructional Programs (CIP) codes.⁷ There are six TOP codes and 15 CIP codes related to *Computer User Support Specialists* (Exhibit 4).

Please note: The TOP and CIP codes listed in Exhibit 4 tend to train for more than one occupation.

Exhibit 4: Related TOP and CIP Codes for *Computer User Support Specialists*

<i>Computer User Support Specialists</i>
TOP 070200: Computer Information Systems-
TOP 070210: Software Applications-
TOP 070800: Computer Infrastructure and Support-
TOP 070810: Computer Networking-
TOP 070820: Computer Support-
CIP 11.0103: Information Technology
CIP 11.0601: Data Entry/Microcomputer Applications, General
CIP 11.0602: Word Processing
CIP 11.0899: Computer Software and Media Applications, Other
CIP 11.0901: Computer Systems Networking and Telecommunications
CIP 11.1001: Network and System Administration/Administrator
CIP 11.1002: System, Networking, and LAN/WAN Management/Manager
CIP 11.1003: Computer and Information Systems Security/Information Assurance
CIP 11.1005: Information Technology Project Management
CIP 11.1006: Computer Support Specialist
CIP 15.1202: Computer Technology/Computer Systems Technology

⁷ TOP data comes from the California Community Colleges Chancellor's Office MIS Data Mart (datamart.cccco.edu) and CIP data comes from the Integrated Postsecondary Education Data System (nces.ed.gov/ipeds/use-the-data).

According to TOP data, **nine** community colleges supply the region with awards for this occupation: Cuyamaca College, Grossmont College, Palomar College, MiraCosta College, San Diego City College, San Diego Continuing Education, San Diego Mesa College, San Diego Miramar, and Southwestern College. According to CIP data, **two** non-community colleges supply the region with awards, Coleman University and California Miramar University (Exhibit 5).

Exhibit 5: Number of Awards (Certificates and Degrees) Conferred by Postsecondary Institutions (Program Year 2013-14 through PY2016-17 Average)

TOP6 or CIP	TOP6 or CIP Title	3-Yr Annual Average CC Awards (PY14-15 to PY16-17)	Other Educational Institutions 3-Yr Annual Average Awards (PY13-14 to PY15-16)	3-Yr Total Average Supply (PY13-14 to PY16-17)
070200	Computer Information Systems	52	0	52
	• MiraCosta	0	0	
	• Palomar	15	0	
	• San Diego City	5	0	
	• San Diego Mesa	18	0	
	• San Diego Miramar	11	0	
	• Southwestern	3	0	
070210	Software Applications	21	0	21
	• Grossmont	2	0	
	• MiraCosta	10	0	
	• San Diego Cont. Ed.	6	0	
	• San Diego City	0	0	
	• San Diego Miramar	2	0	
	• Southwestern	1	0	
070800	Computer Infrastructure and Support	21	0	21
	• San Diego City	9	0	
	• San Diego Cont. Ed.	12	0	
070810	Computer Networking	88	0	88
	• Cuyamaca	12	0	
	• Grossmont	4	0	

	• MiraCosta	14	0	
	• Palomar	36	0	
	• San Diego City	19	0	
	• Southwestern	3	0	
070820	Computer Support	33	0	33
	• Palomar	0	0	
	• San Diego Cont. Ed.	28	0	
	• Southwestern	5	0	
11.0901	Computer Systems Networking and Telecommunications	0	45	45
	• Coleman University	0	45	
11.1003	Computer and Information Systems Security/Information Assurance	0	11	11
	• California Miramar University	0	0	
	• Coleman University	0	11	
			Total	271

Demand vs. Supply

Comparing labor demand (annual openings) with labor supply⁸ suggests that there is an undersupply for this occupation in San Diego County, with 549 annual openings and 271 awards. Comparatively, there are 7,858 annual openings in California and 3,121 awards⁹ (Exhibit 6).

Exhibit 6: Labor Demand (Annual Openings) Compared with Labor Supply (Average Annual Awards)

Community Colleges and Other Postsecondary Educational Institutions	Demand (Annual Openings)	Supply (Total Annual Average Supply)	Supply Gap or OverSupply
San Diego	549	271	278
California	7,858	3,121	4,737

⁸ Labor supply can be found from two different sources: EMSI or the California Community Colleges Chancellor's Office MIS Data Mart. EMSI uses CIP codes while MIS uses TOP codes. Different coding systems result in differences in the supply numbers.

⁹ Centers of Excellence Student Outcomes supply table. (coecc.net/Supply-and-Demand.aspx).

Please note: This is a basic analysis of supply and demand of labor. This data should be used to discuss the potential gaps or oversupply of workers; however, it should not be the only basis for determining whether or not a program should be developed. Additionally, the data does not include workers who are currently in the labor force who could fill these positions or workers who are not captured by publicly available data.

Student Outcomes

Based on the information available in the CTE LaunchBoard, students who took courses in the related TOP codes exhibited the following outcomes (Exhibit 7).

Exhibit 7: Strong Workforce Program Metrics for TOP 070820: Computer Support San Diego-Imperial Region vs. California (PY2015-16)

Metric	San Diego-Imperial	California
Number of course enrollments ¹⁰	236	2,268
Completed 12+ CTE units in one year ¹¹	28	403
Completed 48+ CTE contact hours in one year ¹²	58	153
Number of students who got a degree or certificate ¹³	10	122
Number of students who transferred ¹⁴	N/A	75
Employed in the second fiscal quarter after exit ¹⁵	87%	68%
Employed in the fourth fiscal quarter after exit ¹⁶	87%	70%
Job closely related to field of study ¹⁷	N/A	N/A
Median earnings in the second fiscal quarter after exit ¹⁸	\$5,926	\$7,689
Median change in earnings ¹⁹	62%	57%
Attained a living wage ²⁰	N/A%	53%

¹⁰ The number of enrollments in courses assigned to the TOP code in the selected year.

¹¹ The number of students who completed 12 or more credit CTE units.

¹² The number of students who completed 48 or more noncredit CTE instructional contact hours.

¹³ The number of unduplicated students who earned a locally-issued certificate, Chancellor's Office approved certificate, associate degree, and/or California Community Colleges bachelor's degree in the selected TOP code.

¹⁴ Students who took non-introductory courses or completed a California Community Colleges Chancellor's Office award in the selected TOP code in selected year who subsequently enrolled for the first time in a four-year institution the following year.

¹⁵ Among all exiters with a valid SSN, the percentage who were employed two quarters after exiting California Community Colleges.

¹⁶ Among exiting students with a valid SSN, the percentage who were employed four quarters after exiting California Community Colleges.

¹⁷ Among students who responded to the CTEOS, the percentage reporting employment in the same or similar field as their program of study.

¹⁸ Among exiting students, the median second-quarter earnings one year after the year in which they exited California Community Colleges.

¹⁹ Among exiting students with a valid SSN, the percentage change in earnings one year before and one year after exiting California Community Colleges.

²⁰ Among completers and skills builders who exited, the proportion of students who attained a living wage.

Top Employers and Work Locations

Between January 1, 2016 and December 31, 2018, the top five employers in San Diego County for this occupation were [Best Buy](#), [Scripps Health](#), [US Navy](#), [General Atomics](#), and [General Dynamics](#) (Exhibit 8).

Exhibit 8: Top Employers in San Diego County for Computer User Support Specialists²¹

Top Employers	
<ul style="list-style-type: none"> • Best Buy • Scripps Health • US Navy • General Atomics • General Dynamics 	<ul style="list-style-type: none"> • Jack Henry & Associates • SAIC • Mitchell International Incorporated • University of California San Diego • ServiceNow

Skills, Education, and Certifications

Exhibit 9 indicates the educational attainment for the occupation found currently in the national labor force. There is no typical on-the-job training for this profession. The typical entry-level education is [some college, no degree](#).²²

Exhibit 9: National Educational Attainment of Computer User Support Specialists²³

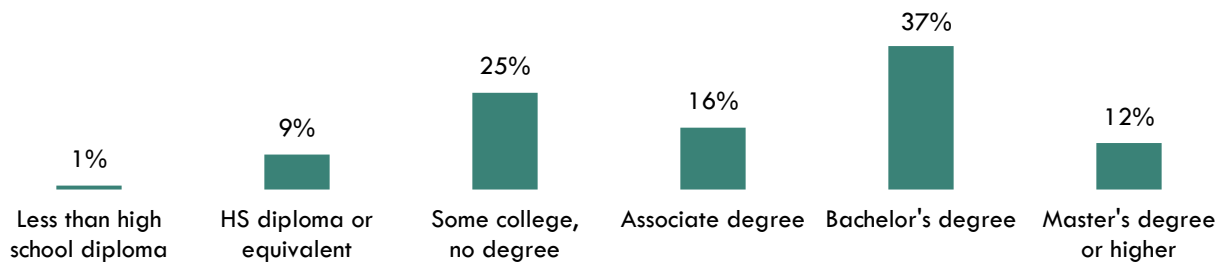


Exhibit 10 lists the top specialized, soft, and software skills that appeared in online job postings between January 1, 2016 and December 31, 2018.

²¹ Burning Glass Technologies, "Labor Insight Real-Time Labor Market Information Tool." 2016-2018.

²² Emsi, 2018.04; QCEW, Non-QCEW, Self-Employed.

²³ "Educational Attainment for Workers 25 Years and Older by Detailed Occupation," Bureau of Labor Statistics, last modified October 18, 2018. bls.gov/emp/tables/educational-attainment.htm.

Exhibit 10: Top Skills for Computer User Support Specialists in San Diego County²⁴

Specialized Skills	Soft Skills	Software Skills
<ul style="list-style-type: none"> • Technical Support • Customer Service • Help Desk Support • Repair • Microsoft Active Directory 	<ul style="list-style-type: none"> • Troubleshooting • Communication Skills • Problem Solving • Detail-Oriented • Research 	<ul style="list-style-type: none"> • Microsoft Windows • Microsoft Excel • Microsoft Operating Systems • SQL • Linux

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Important Disclaimers

All representations included in this report have been produced from primary research and/or secondary review of publicly and/or privately available data and/or research reports. This study examines the most recent data available at the time of the analysis; however, data sets are updated regularly and may not be consistent with previous reports. Efforts have been made to qualify and validate the accuracy of the data and the report findings; however, neither the Centers of Excellence for Labor Market Research (COE), COE host district, nor California Community Colleges Chancellor's Office are responsible for the applications or decisions made by individuals and/or organizations based on this study or its recommendations.

²⁴ Burning Glass Technologies, "Labor Insight Real-Time Labor Market Information Tool." 2016-2018.