



# Labor Market Analysis for Program Recommendation

## Computer Support Occupations

### Cabrillo College

Prepared by the San Francisco Bay Center of Excellence for Labor Market Research

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#### Recommendation

Based on all available data, there appears to be an “undersupply” of Computer Support workers compared to the demand for this cluster of occupations in the Bay region and in the SC-Monterey sub-region (Monterey, San Benito, Santa Cruz counties). There is a projected annual gap of about 2,746 students in the Bay region and 54 students in the SC-Monterey Sub-Region.

#### Introduction

This report provides student outcomes data on employment and earnings for TOP 0708.20 - Computer Support programs in the state and region. It is recommended that these data be reviewed to better understand how outcomes for students taking courses on this TOP code compare to potentially similar programs at colleges in the state and region, as well as to outcomes across all CTE programs at Cabrillo College and in the region.

This report profiles Computer Support Occupations in the 12 county Bay region and in the SC-Monterey sub-region for a proposed new program at Cabrillo College.

- **Computer Network Support Specialists (15-1231):** Analyze, test, troubleshoot, and evaluate existing network systems, such as local area network (LAN), wide area network (WAN), and Internet systems or a segment of a network system. Perform network maintenance to ensure networks operate correctly with minimal interruption. Excludes “Network and Computer Systems Administrators” (15-1142) and “Computer Network Architects” (15-1143).  
Entry-Level Educational Requirement: Associate’s degree  
Training Requirement: None  
Percentage of Community College Award Holders or Some Postsecondary Coursework: 41%
- **Computer User Support Specialists (15-1232):** 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. Excludes “Network and Computer Systems Administrators” (15-1142).  
Entry-Level Educational Requirement: Some college, no degree  
Training Requirement: None  
Percentage of Community College Award Holders or Some Postsecondary Coursework: 41%

## Occupational Demand

**Table 1. Employment Outlook for Computer Support Occupations in Bay Region**

Occupation	2021 Jobs	2026 Jobs	5-yr Change	5-yr % Change	5-yr Total Openings	Annual Openings	25% Hourly Earning	Median Hourly Wage
Computer Network Support Specialists	4,134	4,914	780	19%	2,510	502	\$28	\$37
Computer User Support Specialists	19,978	23,222	3,244	16%	11,492	2,298	\$27	\$35
<b>Total</b>	<b>24,112</b>	<b>28,135</b>	<b>4,023</b>	<b>17%</b>	<b>14,002</b>	<b>2,800</b>		

Source: Lightcast 2022.3

**Bay Region includes:** Alameda, Contra Costa, Marin, Monterey, Napa, San Benito, San Francisco, San Mateo, Santa Clara, Santa Cruz, Solano and Sonoma Counties

**Table 2. Employment Outlook for Computer Support Occupations in SC-Monterey Sub-region**

Occupation	2021 Jobs	2026 Jobs	5-yr Change	5-yr % Change	5-yr Total Openings	Annual Openings	25% Hourly Earning	Median Hourly Wage
Computer Network Support Specialists	154	162	9	6%	71	14	\$24	\$31
Computer User Support Specialists	577	616	39	7%	268	54	\$23	\$29
<b>Total</b>	<b>731</b>	<b>778</b>	<b>48</b>	<b>7%</b>	<b>340</b>	<b>68</b>		

Source: Lightcast 2022.3

**SC-Monterey Sub-Region includes:** Monterey, San Benito, Santa Cruz Counties

## Job Postings in Bay Region and SC-Monterey Sub-Region

**Table 3. Number of Job Postings by Occupation for latest 12 months (Sept. 2022 - Aug. 2023)**

Occupation	Bay Region	SC-Monterey
Computer User Support Specialists	10,309	362
Computer Network Support Specialists	871	24

Source: Lightcast

**Table 4a. Top Job Titles for Computer Support Occupations for latest 12 months (Sept. 2022 - Aug. 2023)  
Bay Region**

Title	Bay	Title	Bay
Desktop Support Technicians	433	IT Technicians	198
IT Support Specialists	367	Desktop Support Specialists	189
Desktop Support Managers	339	Desktop Support Analysts	188
IT Specialists	299	Help Desk Analysts	174
Technical Support Engineers	291	Help Desk Technicians	161
Help Desk Specialists	222	Desktop Technicians	114
Technical Support Specialists	220	Computer Technicians	105

Title	Bay	Title	Bay
Field Service Technicians	214	Customer Support Engineers	93
IT Support Technicians	213	Desktop Support Engineers	93

Source: Lightcast

**Table 4b. Top Job Titles for Computer Support Occupations for latest 12 months (Sept. 2022 - Aug. 2023)  
SC-Monterey Sub-Region**

Title	SC-Monterey	Title	SC-Monterey
Help Desk Specialists	20	Field Support Technicians	8
IT Specialists	18	IT Specialists Appsw	8
IT Support Technicians	16	IT Specialists/System Administrators	8
Service Desk Technicians	14	Geek Squad Managers	7
Desktop Support Analysts	12	Information Systems Coordinators	7
Help Desk Technicians	11	IT Support Specialists	6
Field Service Technicians	10	Technology Specialists	6
IT Technicians	10	Water Mitigation Technicians	6
Technical Support Specialists	9	Desktop Support Technicians	5

Source: Lightcast

## Industry Concentration

**Table 5. Industries hiring Computer Support Workers in Bay Region**

Industry - 6 Digit NAICS (No. American Industry Classification) Codes	Jobs in Industry (2021)	Jobs in Industry (2026)	% Change (2021-26)	% Occupation Group in Industry (2022)
Custom Computer Programming Services	5,627	7,108	26%	22%
Computer Systems Design Services	2,966	3,248	10%	11%
Software Publishers	2,414	2,594	7%	9%
Data Processing, Hosting, and Related Services	1,402	2,444	74%	7%
Other Computer Related Services	805	950	18%	3%
Electronic Computer Manufacturing	869	882	2%	3%
Web Search Portals and All Other Information Services	990	856	-14%	3%
Corporate, Subsidiary, and Regional Managing Offices	585	639	9%	2%
Temporary Help Services	618	651	5%	2%
Colleges, Universities, and Professional Schools (State Government)	546	625	14%	2%

Industry - 6 Digit NAICS (No. American Industry Classification) Codes	Jobs in Industry (2021)	Jobs in Industry (2026)	% Change (2021-26)	% Occupation Group in Industry (2022)
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Source: Lightcast 2022.3

**Table 6. Top Employers Posting Computer Support Occupations in Bay Region and SC-Monterey Sub-Region (Sept. 2022 - Aug. 2023)**

Employer	Bay	Employer	SC-Monterey
Robert Half	337	Lintech Global	20
Best Buy	158	Robert Half	17
Randstad	137	University of California	12
TEKsystems	135	Best Buy	10
Apple	61	United States Fleet Forces Command	10
University of California	61	Cabrillo College	7

Source: Lightcast

## Educational Supply

There are eight (8) community colleges in the Bay Region issuing 54 awards on average annually (last 3 years ending 2021-22) on TOP 0708.20 - Computer Support. In the SC-Monterey Sub-Region, there is one (1) community college that issued 14 awards on average annually (last 3 years) on this TOP code.

**Table 7a. Community College Awards on TOP 0708.20 - Computer Support in Bay Region**

College	Subregion	Associate Degree	Low unit Certificate	Total
Cabrillo	SC-Monterey	2	12	14
Contra Costa	East Bay	1	1	2
De Anza	Silicon Valley	0	2	2
Las Positas	East Bay	0	4	4
Ohlone	East Bay	1	7	8
San Francisco	Mid-Peninsula	0	8	8
Santa Rosa	North Bay	0	13	13
Skyline	Mid-Peninsula	0	3	3
<b>Total</b>		<b>4</b>	<b>50</b>	<b>54</b>

## Gap Analysis

Based on the data included in this report, there is a large labor market gap in the Bay region with 2,800 annual openings for the Computer Support occupational cluster and 54 annual (3-year average) awards for an annual undersupply of 2,746 students. In the SC-Monterey Sub-Region, there is also a gap with 68 annual openings and 14 annual (3-year average) awards for an annual undersupply of 54 students.

## Student Outcomes

**Table 8. Four Employment Outcomes Metrics for Students Who Took Courses on TOP 0708.20 - Computer Support**

Metric Outcomes	Bay All CTE Programs	Cabrillo All CTE Programs	State 0708.20	Bay 0708.20	SC-Monterey 0708.20	Cabrillo 0708.20
Students with a Job Closely Related to Their Field of Study	74%	80%	70%	62%	N/A	N/A
Median Annual Earnings for SWP Exiting Students	\$53,090	\$46,381	\$45,134	\$45,860	\$46,326	\$52,741
Median Change in Earnings for SWP Exiting Students	24%	23%	16%	26%	31%	46%
Exiting Students Who Attained the Living Wage	54%	44%	56%	46%	N/A	N/A

Source: Launchboard Strong Workforce Program Median of 2018 to 2021.

## Skills, Certifications and Education

**Table 9. Top Skills for Computer Support Occupations in Bay Region (Sept. 2022 - Aug. 2023)**

Skill	Posting	Skill	Posting
Technical Support	2,980	Microsoft Windows 10	1,180
Help Desk Support	2,443	Mac OS	1,057
Operating Systems	2,319	Issue Tracking	1,038
Desktop Support	2,025	ServiceNow	912
Active Directory	1,734	Network Troubleshooting	892
Computer Science	1,595	Virtual Private Networks (VPN)	880
Peripheral Devices	1,528	Project Management	816
Microsoft Office 365	1,302	Linux	800
Customer Support	1,275	Local Area Networks	772
Computer Hardware	1,183	Apple IOS	757

Source: Lightcast

**Table 10. Certifications for Computer Support Occupations in Bay Region (Sept. 2022 - Aug. 2023)**

Certification	Posting	Certification	Posting
CompTIA A+	928	ITIL Foundation Certification	117
Valid Driver's License	827	Microsoft Certified IT Professional	65
CompTIA Network+	403	Functional Skills Qualification	58
Microsoft Certified Professional	334	Cisco Certified Network Professional	49

Certification	Posting	Certification	Posting
Microsoft Certified Systems Engineer	277	Secret Clearance	43
Cisco Certified Network Associate	195	Certified Information Systems Security Professional	43
CompTIA Security+	184	CompTIA Server+	41
ITIL Certifications	173	Apple Certified Macintosh Technician	39
Security Clearance	146	Certified Information System Auditor (CISA)	36
CompTIA Certification	119	IAT Level II Certification	36

Source: Lightcast

**Table 11. Education Requirements for Computer Support Occupations in Bay Region**

Education Level	Job Postings	% of Total
High school or GED	1,309	19%
Associate degree	1,279	19%
Bachelor's degree & higher	4,197	62%

Source: Lightcast

Note: 52% of records have been excluded because they do not include a degree level. As a result, the chart above may not be representative of the full sample.

## Methodology

Occupations for this report were identified by use of job descriptions and skills listed in O\*Net. Labor demand data is sourced from Lightcast occupation and job postings data. Educational supply and student outcomes data is retrieved from multiple sources, including CCCCO Data Mart and CTE Launchboard.

## Sources

O\*Net Online

Lightcast

CTE LaunchBoard [www.calpassplus.org](http://www.calpassplus.org)

Launchboard

Statewide CTE Outcomes Survey

Employment Development Department Unemployment Insurance Dataset

Living Insight Center for Community Economic Development

Chancellor's Office MIS system

## Contacts

For more information, please contact:

- Leila Jamoosian, Research Analyst, for Bay Area Community College Consortium (BACCC) and Centers of Excellence (COE), [leila@baccc.net](mailto:leila@baccc.net)
- John Carrese, Director, San Francisco Bay Center of Excellence for Labor Market Research, [jcarrese@ccsf.edu](mailto:jcarrese@ccsf.edu) or (415) 267-6544