



Labor Market Analysis for Program Recommendation

IT Essentials Occupations

Silicon Valley Subregion

Prepared by the Bay Region Center of Excellence for Labor Market Research

Certificate Program

September 2026

Recommendation Based on Labor Market Data: ☒ Yes ☐ With Reservations ☐ No		
	Earning Wage Meets Living Wage	Meets Demand
Bay Region	Entry Level Hourly Wage- \$35 Mid-Career Hourly Wage- \$44 Mid-Career Hourly Wage at or above the Bay Living Wage (\$27)? ☒ Yes ☐ No	Demand: 1,724 Supply: 154 (9% of Demand is Met) Gap: 1570 In-Demand? ☒ Yes ☐ No
Silicon Valley Subregion	Entry Level Hourly Wage- \$36 Mid-Career Hourly Wage- \$46 Mid-Career Hourly Wage at or above the Subregion Living Wage (\$30)? ☒ Yes ☐ No	Demand: 601 Supply: 30 (5% of Demand is Met) Gap: 571 In-Demand? ☒ Yes ☐ No

Note: An occupation is considered to provide a living wage if the mid-career wage is at or above the amount required for a single adult to be economically self-sufficient within a specified region. In this report, living wage estimates are based on the California Self-Sufficiency Standard. The Bay Region Center of Excellence is gradually transitioning to the MIT Living Wage Calculator. During this transition, we include estimates in the methodology section from both sources for reference and comparison. As a rule of thumb, an occupation will be considered **in-demand** when the supply is less than 75% of the demand and the labor market gap exceeds 40 openings (a reasonable regional threshold for starting a new program), but this approach may not apply in all cases. For definitions of demand, supply, and living wage, please scroll to the bottom of the report under **Definitions**.

Recommendation

The labor market data supports this proposed program. The occupations meet both the Bay Region and Silicon Valley subregion living wage at the entry and mid-career levels. An additional 1,570 students are needed in the Bay Region and 571 students in the Silicon Valley subregion to complete their program. Lastly, only 9% of labor market demand is being met in the Bay Region, and 5% of demand is being met in the Silicon Valley subregion overall.

Introduction

This report provides student outcomes data on employment and earnings for TOP 0708.00 - Computer Infrastructure and 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 subregion in the state and region.

This report profiles IT Essentials Occupations in the 12 county Bay Region and in the Silicon Valley subregion. The occupations classified as middle-skill occupations require a certificate, or an associate degree, or it may require a bachelor's degree, but 33% or fewer of current workers in these roles hold one.

- **Computer User Support Specialists (15-1232):** 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.
Typical Entry-Level Educational: Some college, no degree
Skill Level: Middle-Skill
Work Experience Required: None
Percentage of individuals 25+ with an associate degree, certificate, or some postsecondary coursework as their highest level of education attainment: 38%
- **Computer Network Support Specialists (15-1231):** Analyze, test, troubleshoot, and evaluate existing network systems, such as local area networks (LAN), wide area networks (WAN), cloud networks, servers, and other data communications networks. Perform network maintenance to ensure networks operate correctly with minimal interruption.
Typical Entry-Level Educational: Associate's degree
Skill Level: Middle-Skill
Work Experience Required: None
Percentage of individuals 25+ with an associate degree, certificate, or some postsecondary coursework as their highest level of education attainment: 38%

Occupational Demand

Table 1. Employment Outlook for IT Essentials Occupations in the Bay Region

Occupation	2025 Jobs	2030 Jobs	5-yr Change	5-yr % Change	5-yr Total Openings	Annual Openings	Entry Level Hourly	Mid-Career Hourly Wage
Computer User Support Specialists	19,774	20,395	621	3%	7,030	1,406	\$34	\$43
Computer Network Support Specialists	4,046	4,322	276	7%	1,590	318	\$39	\$50
Total	23,820	24,717	897	4%	8,620	1,724	\$35	\$44

Source: Lightcast 2026.3

The 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 IT Essentials Occupations in the Silicon Valley Subregion

Occupation	2025 Jobs	2030 Jobs	5-yr Change	5-yr % Change	5-yr Total Openings	Annual Openings	Entry Level Hourly	Mid-Career Hourly Wage
Computer User Support Specialists	6,345	6,795	450	7%	2,476	495	\$35	\$44
Computer Network Support Specialists	1,164	1,315	150	13%	532	106	\$44	\$59
Total	7,509	8,110	601	8%	3,008	601	\$36	\$46

Source: Lightcast 2026.3

Silicon Valley Subregion includes: Santa Clara Counties

Job Postings in the Bay Region and Silicon Valley Subregion

Table 3. Number of Job Postings by Occupation for the latest 12 months

Occupation	Bay Region	Silicon Valley
Computer User Support Specialists	5,098	1,680
Computer Network Support Specialists	514	190

Source: Lightcast 2026.3; "Job Posting Analytics." Sep. 2025 - Aug. 2026

Table 4a. Top Job Titles in Job Postings for IT Essentials Occupations in the Bay Region

Title	Bay	Title	Bay
Technical Support Engineers	423	IT Support Engineers	81
IT Specialists	255	Desktop Support Specialists	73
IT Support Specialists	211	Desktop Support Analysts	72
Desktop Support Technicians	160	IT Engineers	69
Technical Support Specialists	122	IT Help Desk Technicians	63
IT Technicians	105	Geek Squad Managers	61
IT Support Technicians	88	Desktop Support Managers	61
Support Engineers	87	Desktop Support Engineers	56
Help Desk Technicians	86	Help Desk Support Technicians	53

Source: Lightcast 2026.3; "Job Posting Analytics." Sep. 2025 - Aug. 2026

Table 4b. Top Job Titles in Job Posting for IT Essentials Occupations in the Silicon Valley Subregion

Title	Silicon Valley	Title	Silicon Valley
Technical Support Engineers	175	IT Help Desk Technicians	26
IT Support Specialists	94	Desktop Support Engineers	24
Desktop Support Technicians	72	Help Desk Technicians	24
IT Specialists	51	Desktop Support Analysts	23

Title	Silicon Valley	Title	Silicon Valley
Support Engineers	42	IT Support Technicians	19
Technical Support Specialists	39	IT Engineers	18
IT Support Engineers	29	Help Desk Support Technicians	17
Desktop Support Specialists	28	Help Desk Specialists	16
IT Technicians	27	Hardware Support Engineers	16

Source: Lightcast 2026.3; "Job Posting Analytics." Sep. 2025 - Aug. 2026

Industry Concentration

Table 5. Industries Hiring for IT Essentials Occupations in the Bay Region

Industry - 6 Digit NAICS (No. American Industry Classification) Codes	Jobs in Industry (2025)	Jobs in Industry (2030)	% Change (2025-30)	% Occupation Group in Industry (2025)
Custom Computer Programming Services	5,350	5,672	6%	22%
Computer Systems Design Services	2,660	2,757	4%	11%
Software Publishers	1,967	2,090	6%	8%
Computing Infrastructure Providers, Data Processing, Web Hosting, and Related Services	1,890	2,252	19%	8%
Corporate, Subsidiary, and Regional Managing Offices	898	1,168	30%	4%
Local Government, Excluding Education and Hospitals	610	625	2%	3%
Colleges, Universities, and Professional Schools (State Government)	591	585	-1%	2%
Elementary and Secondary Schools (Local Government)	571	576	1%	2%
Colleges, Universities, and Professional Schools	567	567	0%	2%
Web Search Portals and All Other Information Services	442	453	3%	2%

Source: Lightcast 2026.3

Table 6. Top Employers Posting IT Essentials Occupations in the Bay Region and the Silicon Valley Subregion

Employer	Bay	Employer	Silicon Valley
Odoo	134	Palo Alto Networks	74
Insight Global	122	TEKsystems	33
Robert Half	111	Insight Global	32

Employer	Bay	Employer	Silicon Valley
TEKsystems	85	Odoo	31
Palo Alto Networks	74	Applied Materials	28
Best Buy	60	Robert Half	25

Source: Lightcast 2026.3; "Job Posting Analytics." Sep. 2025 - Aug. 2026

Educational Supply

There are nine community colleges in the Bay Region issuing 142 awards on average annually (last 3 years ending 2024-25) on TOP 0708.00 - Computer Infrastructure and Support. In the Silicon Valley subregion, there are two community colleges that issued 18 awards on average annually (last 3 years) on this TOP code.

There is one other CTE educational institution in the Bay Region issuing 12 awards on average annually (last 3 years ending 2023-24) on CIP 11.1006- Computer Support Specialist. There is one other CTE educational institution in the Silicon Valley subregion issuing 12 awards on average annually (last 3 years) on this CIP code.

Table 7a. Community College Awards on TOP 0708.00 - Computer Infrastructure and Support in the Bay Region

College	Subregion	Associate Degree	High unit Certificate	Low unit Certificate	Noncredit award	Total
Cabrillo	SC-Monterey	7	0	4	14	25
Deanza	Silicon Valley	0	0	1	2	3
Foothill	Silicon Valley	0	0	15	0	15
Hartnell	SC-Monterey	0	2	0	0	2
Las Positas	East Bay	0	0	1	0	1
Los Medanos	East Bay	7	2	4	0	13
San Francisco	Mid-Peninsula	0	0	26	0	26
Santa Rosa	North Bay	0	0	56	0	56
Skyline	Mid-Peninsula	0	0	1	0	1
Total	-	14	4	108	16	142

Source: Data Mart

Note: The annual average for awards is 2022-23 to 2025-25.

Table 7b. Other CTE Institutions Awards on CIP 11.1006- Computer Support Specialist in the Bay Region

College	Subregion	Certificates of less than 1 year	Total
CET-San Jose	Silicon Valley	12	12
Total	-	12	12

Source: IPEDS

Note: The annual average for awards is 2021-22 to 2023-24.

Gap Analysis

Based on the data included in this report, there is a labor market gap in the Bay Region with 1,724 annual openings for the IT Essentials occupational cluster and 154 annual (3-year average) awards for an annual undersupply of 1,570 students. In the Silicon Valley subregion, there is also a gap with 601 annual openings and 30 annual (3-year average) awards for an annual undersupply of 571 students.

Student Outcomes

Table 8. Four Employment Outcomes Metrics for Students Who Took Courses on TOP 0708.00 - Computer Infrastructure and Support

Metric Outcomes	Bay All CTE Program	State 0708.00	Bay 0708.00	Silicon Valley 0708.00
Students with a Job Closely Related to Their Field of Study	74%	70%	71%	67%
Median Annual Earnings for SWP Exiting Students	\$60,280	\$60,431	\$74,413	\$82,963
Median Change in Earnings for SWP Exiting Students	31%	23%	26%	22%
Exiting Students Who Attained the Living Wage	51%	60%	59%	64%

Source: DataVista Program Median of 2020 to 2022.

Skills, Certifications and Education

Table 9. Top Skills in Job Postings for IT Essentials Occupations in the Bay Region

Skill	Posting	Skill	Posting
Technical Support	2,110	Desktop Support	897
Computer Science	1,377	Linux	847
Help Desk Support	1,270	Automation	818
Operating Systems	1,157	Peripheral Devices	818
Technical Issues	1,117	Computer Hardware	751
Mac OS	1,071	Python (Programming Language)	740
Active Directory	986	Software As A Service (SaaS)	719
Workflow Management	964	Virtual Private Networks (VPN)	713
Microsoft 365	942	Network Troubleshooting	706
Customer Support	907	ServiceNow	670

Source: Lightcast 2026.3; "Job Posting Analytics." Sep. 2025 - Aug. 2026

Table 10. Certifications in Job Postings for IT Essentials Occupations in the Bay Region

Certification	Posting	Certification	Posting
ITIL Foundation Certification	112	Project Management Professional Certification	37
CompTIA Certification	56	GIAC Certifications	33
IAT Level II Certification	38		

Source: Lightcast 2026.3; "Job Posting Analytics." Sep. 2025 - Aug. 2026

Table 11. Education Requirements for IT Essentials Occupations in the Bay Region

Education Level	Job Postings	% of Total
High school or GED	412	11%
Associate degree	592	16%
Bachelor's degree & higher	2,613	72%

Source: Lightcast 2026.3; "Job Posting Analytics." Sep. 2025 - Aug. 2026

Note: 50% 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 CCCC Data Mart and CTE Launchboard.

This report uses living wage estimates from the California Self-Sufficiency Standard. The Bay Region Center of Excellence is gradually transitioning to the Massachusetts Institute of Technology (MIT) Living Wage Calculator, which will become the primary living wage benchmark used in future reports. During this transition, we include both estimates to provide context and allow readers to understand how the selected benchmark affects wage comparisons. Because the California Self-Sufficiency Standard and the MIT Living Wage Calculator use different methodologies, their estimates are not directly interchangeable. The MIT Living Wage Calculator generally produces higher living wage thresholds; therefore, future reports may identify fewer occupations as providing a living wage, even when the underlying occupational wage data has not changed. For comparison, the MIT living wage is \$33 per hour for the Bay Region and \$38 per hour for the Silicon Valley subregion. Under the California Self-Sufficiency Standard, the living wage is \$27 per hour for the Bay Region and \$30 per hour for the Silicon Valley subregion.

Definitions

Demand refers to average annual openings which includes a combination of both [new jobs and replacement jobs](#) between 2025 to 2030. New jobs represent the total number of additional workers required in an occupation, calculated as the difference between the current number of workers and the projected number of unfilled positions. Replacements are jobs that will need to be filled by [new hires](#) due to existing workers leaving the occupation. The average annual openings figure is derived by dividing total openings (2025 to 2030) by five years.

Supply refers to the average number of [graduates](#) between academic years 2021–2022 and 2023–2024. Graduates include students from community colleges, other two-year private and public institutions, as well as four-year institutions.

Living wage refers to the amount of income required for working families to meet basic needs at a minimally adequate level, considering family composition, ages of children, and geographic differences in costs based on the Self-Sufficiency Standard methodology.

Entry-level wages are the hourly earnings paid to workers who are newly entering an occupation.

Mid-career wages are the hourly earnings paid to workers who have accumulated several years of experience in an occupation, reflecting increased productivity, skill proficiency, and responsibility beyond entry-level roles but short of late-career or senior positions.

Sources

O*Net Online

Lightcast

CTE LaunchBoard www.calpassplus.org

Statewide CTE Outcomes Survey

Employment Development Department Unemployment Insurance Dataset

CCCCO Data Mart

Contacts

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