CENTER OF EXCELLENCE FOR LABOR MARKET RESEARCH BAY AREA

Labor Market Analysis for Program Recommendation
Applied Artificial Intelligence Occupations
East Bay Subregion

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

Certificate Program

October 2026

Summary

Recommendation Based on Labor Market Data: ☑ Yes ☐ With Reservations ☐ No		
	Earning Wage Meets Living Wage	**Meets Demand**
Bay Region	**Entry Level Hourly Wage- $39** **Mid-Career Hourly Wage- $50** **Mid-Career Hourly Wage at or above the Bay Living Wage ($27)?** **☑ Yes** **☐ No**	**Demand: 318** **Supply: 238 (75% of Demand is Met)** **Gap: 80** **In-Demand?** **☑ Yes** **☐ No**
East Bay Subregion	**Entry Level Hourly Wage- $35** **Mid-Career Hourly Wage- $43** **Mid-Career Hourly Wage at or above the Subregion Living Wage ($25)?** **☑ Yes** **☐ No**	**Demand: 49** **Supply: 120 (245% of Demand is Met)** **Gap: -71** **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 East Bay subregion living wage at the entry and mid-career levels. An additional 80 students are needed in the Bay Region but an oversupply of 71 students in the East Bay subregion to complete their program. Lastly, only 75% of labor market demand is being met in the Bay Region, and 245% of demand is being met in the East Bay subregion overall.

Introduction

This report provides student outcomes data on employment and earnings for TOP 0702.00 - Computer Information Systems 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 Applied Artificial Intelligence Occupations in the 12 county Bay Region and in the East Bay 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 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 Education: 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 Applied Artificial Intelligence 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 Network Support Specialists	4,046	4,322	276	7%	1,590	318	$39	$50
Total	**4,046**	**4,322**	**276**	**7%**	**1,590**	**318**	**$39**	**$50**

Source: Lightcast 2026.3
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 Applied Artificial Intelligence Occupations in the East Bay 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 Network Support Specialists	805	788	-16	-2%	243	49	$35	$43

Total	**805**	**788**	**-17**	**-2%**	**243**	**49**	**$35**	**$43**

Source: Lightcast 2026.3
East Bay Subregion includes: Alameda, Contra Costa Counties

Job Postings in the Bay Region and East Bay Subregion

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

Occupation	Bay Region	East Bay
Computer Network Support Specialists	521	144

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

Table 4a. Top Job Titles in Job Postings for Applied Artificial Intelligence Occupations in the Bay Region

Title	Bay	Title	Bay
IT Technicians	37	Instrument and Controls Technicians	9
Technicians	29	IT Assistants	9
Speakers	27	Operations Technicians	8
Network Technicians	18	Lead Network Technicians	8
Data Center Technicians	16	Hardware Support Specialists	8
Systems Technicians	12	Engineers	7
Network Field Technicians	12	Test Center Administrators	7
IT Help Desk Technicians	11	Technology Specialists	6
Field Technicians	11	IT Support Technicians	6

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

Table 4b. Top Job Titles in Job Postings for Applied Artificial Intelligence Occupations in the East Bay Subregion

Title	Subregion	Title	Subregion
IT Technicians	13	Technology Coordinators	3
Technicians	10	Lead IT Technicians	3
Speakers	8	Support Technicians	3
IT Assistants	7	Lead Network Technicians	3
Network Technicians	6	Network Support Technicians	3
Technology Specialists	5	Data Center Technicians	3
Repair Technicians	5	Field Technicians	3
IT Systems Technicians	5	Deployment Technicians	3
Operations Technicians	3	IT Field Support Specialists	3

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

Industry Concentration

Table 5. Industries Hiring for Applied Artificial Intelligence 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	858	945	10%	21%
Computer Systems Design Services	422	455	8%	10%

Computing Infrastructure Providers, Data Processing, Web Hosting, and Related Services	417	518	24%	10%
Software Publishers	201	215	7%	5%
Corporate, Subsidiary, and Regional Managing Offices	162	214	32%	4%
Local Government, Excluding Education and Hospitals	143	148	4%	4%
Web Search Portals and All Other Information Services	118	128	8%	3%
Colleges, Universities, and Professional Schools (State Government)	111	112	0%	3%
Wired Telecommunications Carriers	109	98	-11%	3%
Elementary and Secondary Schools (Local Government)	106	108	2%	3%

Source: Lightcast 2026.3

Table 6. Top Employers Posting Applied Artificial Intelligence Occupations in the Bay Region and the East Bay Subregion

Employer	Bay	Employer	East Bay
Monogoto	27	Amazon	8
TEKsystems	21	Monogoto	8
Amazon	13	Md Corp	7
The Csi Companies Inc. Of Florida	12	Johnson Service Group	6
ManpowerGroup	11	TEKsystems	5
Insight Global	10	Aerotek	5

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

Educational Supply

There are 14 community colleges in the Bay Region issuing 238 awards on average annually (last 3 years ending 2024-25) on TOP 0702.00 - Computer Information Systems. In the East Bay subregion, there are eight community colleges that issued 120 awards on average annually (last 3 years) on this TOP code.

There are no other CTE educational institutions in the Bay Region issuing any awards on average annually (last 3 years) on CIP 11.0501- Computer Systems Analysis/Analyst.

Table 7. Community College Awards on TOP 0702.00 - Computer Information Systems in the Bay Region

College	Subregion	Associate Degree	High unit Certificate	Low unit Certificate	Total
Alameda	East Bay	2	0	2	4
Chabot Hayward	East Bay	21	0	0	21
Diablo Valley	East Bay	3	0	30	33
Gavilan	Silicon Valley	1	0	5	6
Laney	East Bay	4	0	0	4
Las Positas	East Bay	12	0	11	23
Marin	North Bay	2	0	1	3
Merritt	East Bay	9	0	18	27

Mission	Silicon Valley	32	0	43	75
Monterey	SC-Monterey	1	0	0	1
Ohlone	East Bay	0	0	8	8
San Jose City	Silicon Valley	0	0	25	25
Skyline	Mid-Peninsula	7	1	0	8
Total		**94**	**1**	**143**	**238**

Source: CCCCO DataMart
Note: The annual average for awards is 2022-23 to 2024-25.

Gap Analysis

Based on the data included in this report, there is a labor market gap in the Bay Region with 318 annual openings for the Applied Artificial Intelligence occupational cluster and 238 annual (3-year average) awards for an annual undersupply of 80 students. In the East Bay subregion, there is also a gap with 49 annual openings and 120 annual (3-year average) awards for an annual oversupply of 71 students.

Student Outcomes

Table 8. Four Employment Outcomes Metrics for Students Who Took Courses on TOP 0702.00 - Computer Information Systems

Metric Outcomes	Bay All CTE Program	State 0702.00	Bay 0702.00	East Bay 0702.00
Students with a Job Closely Related to Their Field of Study	75%	70%	69%	74%
Median Annual Earnings for SWP Exiting Students	$59,448	$43,978	$49,243	$49,243
Median Change in Earnings for SWP Exiting Students	30%	27%	24%	22%
Exiting Students Who Attained the Living Wage	50%	42%	43%	44%

Source: DataVista Program Median of 2021 to 2023.

Skills, Certifications and Education

Table 9. Top Skills in Job Postings for Applied Artificial Intelligence Occupations in the Bay Region

Skill	Posting	Skill	Posting
Technical Support	167	Technical Issues	99
Help Desk Support	147	Virtual Private Networks (VPN)	85
Network Troubleshooting	147	Active Directory	76
Operating Systems	144	Local Area Networks	72
Network Routing	116	Auditing	71
Network Switches	115	Linux	71
Computer Hardware	108	Microsoft 365	71
Networking Hardware	107	Computer Science	64
Peripheral Devices	103	Firewall	64
Hardware Troubleshooting	99	Technical Documentation	63

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

Table 10. Certifications in Job Postings for Applied Artificial Intelligence Occupations in the Bay Region

Certification	Posting	Certification	Posting
ITIL Foundation Certification	16	IAT Level II Certification	8
CompTIA Certification	12		

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

Table 11. Education Requirements for Applied Artificial Intelligence Occupations in the Bay Region

Education Level	Job Postings	% of Total
High school or GED	109	40%
Associate degree	54	20%
Bachelor's degree & higher	111	41%

Source: Lightcast 2026.3; "Job Posting Analytics." Oct. 2025 - Sep. 2026
Note: 56% 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.

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 $33 per hour for the East Bay subregion. Under the California Self-Sufficiency Standard, the living wage is $27 per hour for the Bay Region and $25 per hour for the East Bay 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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