



Labor Market Analysis for Program Recommendation

Creative AI Design Occupations

East Bay Subregion

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

Associate Programs

July 2026

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- \$61 Mid-Career Hourly Wage at or above the Bay Living Wage (\$27)? ☒ Yes ☐ No	Demand: 2,052 Supply: 82 (4% of Demand is Met) Gap: 1970 In-Demand? ☒ Yes ☐ No
East Bay Subregion	Entry Level Hourly Wage- \$32 Mid-Career Hourly Wage- \$51 Mid-Career Hourly Wage at or above the Subregion Living Wage (\$25)? ☒ Yes ☐ No	Demand: 386 Supply: 11 (3% of Demand is Met) Gap: 375 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. 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 1,970 students are needed in the Bay Region and 375 students in the East Bay subregion to complete their program. Lastly, only 4% of labor market demand is being met in the Bay Region, and 3% of demand is being met in the East Bay subregion overall. Please note that this report includes occupations requiring an associate degree, or bachelor's degree.

Introduction

This report provides student outcomes data on employment and earnings for TOP 0614.30 - Website Design and Development 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 Creative Ai Design Occupations in the 12 county Bay Region and in the East Bay subregion. This report includes occupations with two different skill levels. 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. In contrast, above middle-skill occupations require a bachelor's degree or higher.

- **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%
- **Web Developers (15-1254):** Develop and implement websites, web applications, application databases, and interactive web interfaces. Evaluate code to ensure that it is properly structured, meets industry standards, and is compatible with browsers and devices. Optimize website performance, scalability, and server-side code and processes. May develop website infrastructure and integrate websites with other computer applications.
Typical Entry-Level Educational: Bachelor'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: 25%
- **Web and Digital Interface Designers (15-1255):** Design digital user interfaces or websites. Develop and test layouts, interfaces, functionality, and navigation menus to ensure compatibility and usability across browsers or devices. May use web framework applications as well as client-side code and processes. May evaluate web design following web and accessibility standards, and may analyze web use metrics and optimize websites for marketability and search engine ranking. May design and test interfaces that facilitate the human-computer interaction and maximize the usability of digital devices, websites, and software with a focus on aesthetics and design. May create graphics used in websites and manage website content and links.
Typical Entry-Level Educational: Bachelor'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: 21%

- **Graphic Designers (27-1024):** Design or create graphics to meet specific commercial or promotional needs, such as packaging, displays, or logos. May use a variety of mediums to achieve artistic or decorative effects.
Typical Entry-Level Educational: Bachelor's degree
Skill Level: Above 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: 24%

Occupational Demand

Table 1. Employment Outlook for Creative Ai Design Occupations in the Bay Region

Occupation	2024 Jobs	2029 Jobs	5-yr Change	5-yr % Change	5-yr Total Openings	Annual Openings	Entry Level Hourly	Mid-Career Hourly Wage
Computer Network Support Specialists	3,360	3,501	141	4%	1,236	247	\$35	\$46
Web Developers	5,137	5,108	-28	-1%	1,547	309	\$43	\$70
Web and Digital Interface Designers	12,899	12,698	-201	-2%	4,163	833	\$48	\$76
Graphic Designers	8,980	8,653	-327	-4%	3,316	663	\$26	\$39
Total	30,376	29,960	-416	-1%	10,262	2,052	\$39	\$61

Source: Lightcast 2026.1

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 Creative Ai Design Occupations in the East Bay Subregion

Occupation	2024 Jobs	2029 Jobs	5-yr Change	5-yr % Change	5-yr Total Openings	Annual Openings	Entry Level Hourly	Mid-Career Hourly Wage
Computer Network Support Specialists	690	671	-19	-3%	208	42	\$32	\$42
Web Developers	900	850	-50	-6%	236	47	\$37	\$63
Web and Digital Interface Designers	2,234	2,164	-70	-3%	672	134	\$39	\$66
Graphic Designers	2,316	2,199	-116	-5%	813	163	\$23	\$35
Total	6,140	5,884	-256	-4%	1,929	386	\$32	\$51

Source: Lightcast 2026.1

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
Web and Digital Interface Designers	6,317	480
Web Developers	3,903	498
Graphic Designers	569	123
Computer Network Support Specialists	522	149

Source: Lightcast 2026.1; "Job Posting Analytics." Jul. 2025 - Jun. 2026

Table 4a. Top Job Titles in Job Postings for Creative Ai Design Occupations in the Bay Region

Title	Bay	Title	Bay
Back End Engineers	842	Front End Developers	176
Product Designers	472	Java Back End Developers	160
UX Designers	469	Back End Software Engineers	141
Front End Engineers	455	Content Designers	124
UX Researchers	366	Experience Designers	104
User Experience Designers	304	Brand Designers	99
Graphic Designers	276	Google Specialists	95
Back End Developers	248	Interaction Designers	86
UI/UX Designers	187	Quantitative Researchers	71

Source: Lightcast 2026.1; “Job Posting Analytics.” Jul. 2025 - Jun. 2026

Table 4b. Top Job Titles in Job Posting for Creative Ai Design Occupations in the East Bay Subregion

Title	East Bay	Title	East Bay
Back End Engineers	98	Java Back End Developers	22
Back End Developers	83	JavaScript Engineers	21
User Experience Designers	57	Front End Engineers	19
Graphic Designers	56	Content Designers	16
UX Designers	46	Shopify Developers	14
Product Designers	35	Back End Software Engineers	13
Front End Developers	26	Python Back End Developers	13
Brand Designers	25	UI Designers	12
UI/UX Designers	23	Creative Leads	11

Source: Lightcast 2026.1; “Job Posting Analytics.” Jul. 2025 - Jun. 2026

Industry Concentration

Table 5. Industries Hiring for Creative Ai Design Occupations in the Bay Region

Industry - 6 Digit NAICS (No. American Industry Classification) Codes	Jobs in Industry (2024)	Jobs in Industry (2029)	% Change (2024-29)	% Occupation Group in Industry (2024)
Custom Computer Programming Services	3,820	3,869	1%	12%
Software Publishers	2,603	2,764	6%	9%

Industry - 6 Digit NAICS (No. American Industry Classification) Codes	Jobs in Industry (2024)	Jobs in Industry (2029)	% Change (2024-29)	% Occupation Group in Industry (2024)
Web Search Portals and All Other Information Services	2,123	2,211	4%	7%
Computer Systems Design Services	1,980	2,014	2%	6%
Computing Infrastructure Providers, Data Processing, Web Hosting, and Related Services	1,627	1,877	15%	6%
Graphic Design Services	1,621	1,444	-11%	5%
Media Streaming Distribution Services, Social Networks, and Other Media Networks and Content Providers	1,626	1,405	-14%	5%
Interior Design Services	1,411	1,376	-2%	5%
Corporate, Subsidiary, and Regional Managing Offices	986	1,113	13%	3%
Administrative Management and General Management Consulting Services	476	470	-1%	2%

Source: Lightcast 2026.1

Table 6. Top Employers Posting Creative Ai Design Occupations in the Bay Region and the East Bay Subregion

Employer	Bay	Employer	East Bay
Google	968	Robert Half	52
Apple	429	Tesla	28
Amazon	174	Plenful	22
Robert Half	144	RUBIBOO	16
Insight Global	123	Crossing Hurdles	14
YouTube	122	Turing	14

Source: Lightcast 2026.1; "Job Posting Analytics." Jul. 2025 - Jun. 2026

Educational Supply

There are eight community colleges in the Bay Region issuing 54 awards on average annually (last 3 years ending 2024-25) on TOP 0614.30 - Website Design and Development. In the East Bay subregion, there are three community colleges that issued 11 awards on average annually (last 3 years) on this TOP code.

There are two other CTE educational institutions in the Bay Region issuing 28 awards on average annually (last 3 years ending 2023-24) on CIP 11.0801- Web Page, Digital/Multimedia and Information Resources Design. There are no other CTE educational institution in the East Bay subregion issuing awards on average annually (last 3 years) on this CIP code.

Table 7a. Community College Awards on TOP 0614.30 - Website Design and Development in the Bay Region

College	Subregion	Associate Degree	High unit Certificate	Low unit Certificate	Total
Berkeley City East Bay		4	0	1	5
Cabrillo	SC-Monterey	0	0	8	8
Diablo Valley	East Bay	3	2	0	5
Foothill	Silicon Valley	0	0	2	2
Mission	Silicon Valley	0	0	7	7
Ohlone	East Bay	0	0	1	1
Santa Rosa	North Bay	13	0	7	20
West Valley	Silicon Valley	2	0	4	6
Total	-	22	2	30	54

Source: Data Mart

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

Table 7b. Other CTE Institutions Awards on CIP 11.0801- Web Page, Digital/Multimedia and Information Resources Design in the Bay Region

College	Subregion	Associate degree	Bachelor's degree	Total
Academy of Art University	Mid-Peninsula	1	17	18
Santa Clara University	Silicon Valley	0	10	10
Total	-	1	27	28

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 2,052 annual openings for the Creative Ai Design occupational cluster and 82 annual (3-year average) awards for an annual undersupply of 1,970 students. In the East Bay subregion, there is also a gap with 386 annual openings and 11 annual (3-year average) awards for an annual undersupply of 375 students.

Student Outcomes

Table 8. Four Employment Outcomes Metrics for Students Who Took Courses on TOP 0614.30 - Website Design and Development

Metric Outcomes	Bay All CTE Program	State 0614.30	Bay 0614.30	East Bay 0614.30
Students with a Job Closely Related to Their Field of Study	75%	69%	72%	NA
Median Annual Earnings for SWP Exiting Students	\$58,379	\$45,590	\$48,292	\$48,465
Median Change in Earnings for SWP Exiting Students	31%	27%	26%	14%
Exiting Students Who Attained the Living Wage	50%	42%	42%	43%

Source: DataVista Program Median of 2020 to 2022.

Skills and Education

Table 9. Top Skills in Job Postings for Creative Ai Design Occupations in the Bay Region

Skill	Posting	Skill	Posting
User Experience (UX)	4,593	Application Programming Interface (API)	2,165

Skill	Posting	Skill	Posting
Artificial Intelligence	3,502	User Research	2,036
Scalability	3,198	JavaScript (Programming Language)	1,954
Workflow Management	2,883	React.js (Javascript Library)	1,848
Prototyping	2,819	Influencing Without Authority	1,692
Product Design	2,765	Python (Programming Language)	1,653
Computer Science	2,524	Front End Design	1,575
User Experience (UX) Design	2,453	Cascading Style Sheets (CSS)	1,572
User Interface (UI)	2,373	Wireframing	1,491
Figma (Design Software)	2,248	Interaction Design	1,482

Source: Lightcast 2026.1; "Job Posting Analytics." Jul. 2025 - Jun. 2026

Table 10. Education Requirements for Creative Ai Design Occupations in the Bay Region

Education Level	Job Postings	% of Total
High school or GED	156	2%
Associate degree	117	2%
Bachelor's degree & higher	7,131	96%

Source: Lightcast 2026.1; "Job Posting Analytics." Jul. 2025 - Jun. 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 CCCCCO Data Mart and CTE Launchboard.

Definitions

Demand refers to average annual openings which includes a combination of both [new jobs and replacement jobs](#) between 2024 to 2029. 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 (2024 to 2029) 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

For more information, please contact:

- Yumi Huang, Research Analyst, Bay Region Center of Excellence, yumi@baccc.net or (831) 275-0043
- Marcela Reyes, Director, Research and Center of Excellence, marcela@baccc.net or (831) 219-8875