



Labor Market Analysis for Program Recommendation

2D Animation Occupations

Cabrillo College

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

October 2024

Recommendation

Based on all available data, there appears to be an “undersupply” of 2D Animation 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 54 students in the Bay Region and 6 students in the SC-Monterey Sub-Region.

Introduction

This report provides student outcomes data on employment and earnings for TOP 0614.40 - Animation 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 2D Animation Occupations in the 12 county Bay region and in the SC-Monterey Sub-Region for program recommendation at Cabrillo College.

- Special Effects Artists and Animators (27-1014):** Create special effects or animations using film, video, computers, or other electronic tools and media for use in products, such as computer games, movies, music videos, and commercials.
 Entry-Level Educational Requirement: Bachelor’s degree
 Training Requirement: None
 Percentage of Community College Award Holders or Some Postsecondary Coursework: 27%

Occupational Demand

Table 1. Employment Outlook for 2D Animation Occupations in the Bay Region

Occupation	2023 Jobs	2028 Jobs	5-yr Change	5-yr % Change	5-yr Total Openings	Annual Openings	25% Hourly Earning	Median Hourly Wage
Special Effects Artists and Animators	2,908	3,112	204	7%	1,607	321	\$40	\$57
Total	2,908	3,112	204	7%	1,607	321	\$40	\$57

Source: Lightcast 2024.3

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 2D Animation Occupations in the SC-Monterey Sub-Region

Occupation	2023 Jobs	2028 Jobs	5-yr Change	5-yr % Change	5-yr Total Openings	Annual Openings	25% Hourly Earning	Median Hourly Wage
Special Effects Artists and Animators	66	70	4	6%	36	7	\$7	\$18
Total	66	70	4	6%	36	7	\$7	\$18

Source: Lightcast 2024.3

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

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

Table 3. Number of Job Postings by Occupation for latest 12 months (Oct. 2023 - Sep. 2024)

Occupation	Bay Region	SC-Monterey
Special Effects Artists and Animators	424	8

Source: Lightcast

Table 4a. Top Job Titles in Job Postings for 2D Animation Occupations in the Bay Region

Title	Bay	Title	Bay
Motion Designers	16	VFX Artists	7
Digital Designers	14	Visual Designers	7
3D Modelers	11	3D Animators	6
Animation Instructors	11	Digital Visual Designers	5
Environment Artists	11	Technical Animators	5
Multimedia Designers	11	Algorithm Engineers	4
Animators	10	CG Generalists	4
Multimedia Technicians	8	CMF Designers	4
Production Designers	7	Designers	4

Source: Lightcast 2024.3; "Job Posting Analytics." Oct. 2023 - Sep. 2024.

Table 4b. Top Job Titles in Job Postings for 2D Animation Occupations in the SC-Monterey Sub-Region

Title	SC-Monterey
Multimedia Designers	3
Parts Department Managers	2
Campus Supervisors	1

Source: Lightcast 2024.3; "Job Posting Analytics." Oct. 2023 - Sep. 2024.

Industry Concentration

Table 5. Industries Hiring for 2D Animation Workers in the Bay Region

Industry - 6 Digit NAICS (No. American Industry Classification) Codes	Jobs in Industry (2023)	Jobs in Industry (2028)	% Change (2023-28)	% Occupation Group in Industry (2023)
Software Publishers	654	723	11%	22%
Independent Artists, Writers, and Performers	459	539	18%	16%
Custom Computer Programming Services	364	418	15%	13%
Motion Picture and Video Production	247	271	10%	8%
Computer Systems Design Services	136	131	-3%	5%
Web Search Portals and All Other Information Services	123	138	12%	4%
Media Streaming Distribution Services, Social Networks, and Other Media Networks and Content Providers	97	99	2%	3%
Teleproduction and Other Postproduction Services	70	81	16%	2%
Graphic Design Services	65	46	-29%	2%
Interior Design Services	62	53	-15%	2%

Source: Lightcast 2024.3

Table 6. Top Employers Posting 2D Animation Occupations in the Bay Region and SC-Monterey Sub-Region

Employer	Bay	Employer	SC-Monterey
Electronic Arts	22	Aquent	11
Apple	17	Foothill-De Anza Community College District	10
Nvidia	15	University of California	3
Meta	13	Gonzales Unified School District	1

Source: Lightcast 2024.3; "Job Posting Analytics." Oct. 2023 - Sep. 2024.

Educational Supply

There are eight community colleges in the Bay Region issuing 45 awards on average annually (last 3 years ending 2021-23) on TOP 0614.40 - Animation. In the SC-Monterey Sub-Region, there is one community college that issued one award on average annually (last 3 years) on this TOP code.

There are four other CTE educational institutions in the Bay Region issuing 222 awards on average annually (last 3 years ending 2020-22) on CIP 10.0304- Animation, Interactive Technology, Video Graphics, and Special Effects. There are no other CTE educational institution in the SC-Monterey Sub-Region issuing awards on average annually (last 3 years) on this CIP code.

Table 7a. Community College Awards on TOP 0614.40 - Animation in the Bay Region

College	Subregion	Associate Degree	High unit Certificate	Low unit Certificate	Noncredit award	Total
Berkeley City	East Bay	6	0	4	0	10
Cabrillo	SC-Monterey	0	0	1	0	1
Chabot	East Bay	0	0	1	0	1
Deanza	Silicon Valley	14	0	0	0	14
Diablo Valley	East Bay	6	2	0	0	8
Ohlone	East Bay	1	0	1	2	4
San Francisco	Mid-Peninsula	0	0	1	0	1
Santa Rosa	North Bay	4	0	2	0	6
Total	-	31	2	10	2	45

Source: Data Mart

Note: The annual average for awards is 2020-21 to 2022-23.

Table 7b. Other CTE Institutions Awards on CIP 10.0304- Animation, Interactive Technology, Video Graphics, and Special Effects in the Bay Region

College	Subregion	Associate degree	Bachelor's degree	Total
Academy of Art University	Mid-Peninsula	9	108	117
California College of the Arts	Mid-Peninsula	0	52	52
SAE Expression College	East Bay	0	9	9
University of Silicon Valley	Silicon Valley	0	44	44
Total	-	9	213	222

Source: Data Mart

Note: The annual average for awards is 2019-20 to 2021-22.

Gap Analysis

Based on the data included in this report, there is a labor market gap in the Bay region with 321 annual openings for the 2D Animation occupational cluster and 267 annual (3-year average) awards for an annual undersupply of 54 students. In the SC-Monterey Sub-Region, there is also a gap with 7 annual openings and one annual (3-year average) award for an annual undersupply of 6 students.

Student Outcomes

Table 8. Four Employment Outcomes Metrics for Students Who Took Courses on TOP 0614.40 - Animation

Metric Outcomes	Bay All CTE Program	Cabrillo College All CTE Program	State 0614.40	Bay 0614.40	SC-Monterey 0614.40	Cabrillo College 0614.40
Students with a Job Closely Related to Their Field of Study	74%	80%	45%	39%	NA	NA
Median Annual Earnings for SWP Exiting Students	\$53,090	\$46,381	\$25,600	\$28,738	NA	NA
Median Change in Earnings for SWP Exiting Students	24%	23%	35%	28%	NA	NA
Exiting Students Who Attained the Living Wage	54%	44%	27%	24%	NA	NA

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

Skills and Education

Table 9. Top Skills in Job Postings for 2D Animation Occupations in the Bay Region

Skill	Posting	Skill	Posting
Animations	136	Motion Graphic Design	41
Marketing	70	Motion Graphics	41
Adobe Photoshop	63	Storyboarding	40
Autodesk Maya	62	Python (Programming Language)	37
Adobe After Effects	59	Visual Design	36
Adobe Illustrator	55	Artificial Intelligence	34
Graphic Design	55	User Experience (UX)	34
Figma (Design Software)	46	Multimedia	33
Computer Science	44	3D Modeling	31
Adobe Creative Suite	43	Illustration	31

Source: Lightcast 2024.3; "Job Posting Analytics." Oct. 2023 - Sep. 2024.

Table 10. Education Requirements for 2D Animation Occupations in the Bay Region

Education Level	Job Postings	% of Total
High school or GED	12	5%
other	8	3%
Bachelor's degree & higher	229	92%

Source: Lightcast 2024.3; "Job Posting Analytics." Oct. 2023 - Sep. 2024.

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 CCCC Data Mart and CTE Launchboard.

Sources

O*Net Online

Lightcast

CTE LaunchBoard 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:

- Yumi Huang, Research Analyst, Bay Region Center of Excellence, yuhuang@cabrillo.edu or (831) 275-0043
- Marcela Reyes, Director, Research and Center of Excellence, mareyes@cabrillo.edu or (831) 219-8875