



Labor Market Analysis for Program Recommendation

Digital Art Occupations

Napa Valley College

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

April 2024

Recommendation

Based on all available data, there appears to be an “undersupply” of Digital Art workers compared to the demand for this cluster of occupations in the Bay region and in the North Bay sub-region (Marin, Napa, Solano, Sonoma counties). There is a projected annual gap of about 2,516 students in the Bay region and 214 students in the North Bay Sub-Region.

Introduction

This report provides student outcomes data on employment and earnings for TOP 1030.00 - Graphic Art and Design 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 Napa Valley College and in the region.

This report profiles Digital Art Occupations in the 12 county Bay region and in the North Bay sub-region for a proposed new program at Napa Valley College.

- **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.
Entry-Level Educational Requirement: Bachelor’s degree
Training Requirement: None
Percentage of Community College Award Holders or Some Postsecondary Coursework: 23%
- **Fine Artists, Including Painters, Sculptors, and Illustrators (27-1013):** Create original artwork using any of a wide variety of media and techniques.
Entry-Level Educational Requirement: Bachelor’s degree
Training Requirement: Long-term on-the-job training
Percentage of Community College Award Holders or Some Postsecondary Coursework: 27%
- **Special Effects Artists and Animators (27-1014):** Create special effects, animation, or other visual images using film, video, computers, or other electronic tools and media for use in products or creations, 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%

- **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.
Entry-Level Educational Requirement: Bachelor's degree
Training Requirement: None
Percentage of Community College Award Holders or Some Postsecondary Coursework: 25%
- **Set and Exhibit Designers (27-1027):** Design special exhibits and movie, television, and theater sets. May study scripts, confer with directors, and conduct research to determine appropriate architectural styles.
Entry-Level Educational Requirement: Bachelor's degree
Training Requirement: None
Percentage of Community College Award Holders or Some Postsecondary Coursework: 28%

Occupational Demand

Table 1. Employment Outlook for Digital Art Occupations in Bay Region

Occupation	2022 Jobs	2027 Jobs	5-yr Change	5-yr % Change	5-yr Total Openings	Annual Openings	25% Hourly Earning	Median Hourly Wage
Web and Digital Interface Designers	11,183	12,031	848	8%	5,020	1,004	\$29	\$63
Fine Artists, Including Painters, Sculptors, and Illustrators	2,841	3,269	428	15%	1,849	370	\$5	\$13
Special Effects Artists and Animators	4,029	4,245	216	5%	2,176	435	\$40	\$57
Graphic Designers	10,545	10,308	-237	-2%	4,424	885	\$25	\$37
Set and Exhibit Designers	667	597	-70	-10%	282	56	\$20	\$31
Total	29,265	30,450	1,185	4%	13,750	2,750		

Source: Lightcast 2024.1

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 Digital Art Occupations in North Bay Sub-region

Occupation	2022 Jobs	2027 Jobs	5-yr Change	5-yr % Change	5-yr Total Openings	Annual Openings	25% Hourly Earning	Median Hourly Wage
Web and Digital Interface Designers	491	491	0	0%	184	37	\$23	\$37
Fine Artists, Including Painters, Sculptors, and Illustrators	497	578	81	16%	332	66	\$4	\$11
Special Effects Artists and Animators	304	304	0	0%	153	31	\$17	\$46
Graphic Designers	1,287	1,242	-45	-3%	531	106	\$19	\$30
Set and Exhibit Designers	89	72	-17	-19%	34	7	\$15	\$27
Total	2,667	2,687	20	1%	1,233	247		

Source: Lightcast 2024.1

North Bay Sub-Region includes: Marin, Napa, Solano, Sonoma Counties

Job Postings in Bay Region and North Bay Sub-Region

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

Occupation	Bay Region	North Bay
Graphic Designers	1,212	91
Web and Digital Interface Designers	566	30
Fine Artists, Including Painters, Sculptors, and Illustrators	558	43
Special Effects Artists and Animators	240	8
Set and Exhibit Designers	62	6

Source: Lightcast

Table 4a. Top Job Titles for Digital Art Occupations for latest 12 months (Apr. 2023 - Mar. 2024) - Bay Region

Title	Bay	Title	Bay
Graphic Designers	366	Motion Graphics Designers	29
Visual Designers	105	Lead Visual Designers	28
Technical Artists	86	Production Designers	27
UX Visual Designers	64	Teaching Artists	25
Interaction Designers	56	Specialty Artists	24
Content Creators	45	VFX Artists	24
Creative Designers	33	Gameplay Engineers	22
Digital Design Engineers	32	Lash Artists	21
Graphic Design Instructors	30	Game Designers	20

Source: Lightcast

Table 4b. Top Job Titles for Digital Art Occupations for latest 12 months (Apr. 2023 - Mar. 2024) - North Bay Sub-Region

Title	North Bay	Title	North Bay
Graphic Designers	53	Application Delivery Managers	2
Graphic Design Instructors	7	Cake Artists	2
Content Creators	6	Data Science Managers	2
Teaching Artists	6	Environment Artists	2
Painting Instructors	5	Gameplay Programmers	2
Specialty Artists	5	Graphic Design Assistants	2
Animators	3	Graphic Production Artists	2
Technical Animators	3		

Title	North Bay	Title	North Bay
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Source: Lightcast

Industry Concentration

Table 5. Industries hiring Digital Art Workers in Bay Region

Industry - 6 Digit NAICS (No. American Industry Classification) Codes	Jobs in Industry (2022)	Jobs in Industry (2027)	% Change (2022-27)	% Occupation Group in Industry (2023)
Independent Artists, Writers, and Performers	2,652	3,157	19%	10%
Custom Computer Programming Services	2,645	3,147	19%	10%
Software Publishers	2,221	2,501	13%	8%
Web Search Portals and All Other Information Services	1,962	1,994	2%	6%
Graphic Design Services	1,772	1,434	-19%	6%
Interior Design Services	1,614	1,518	-6%	5%
Computer Systems Design Services	1,287	1,259	-2%	4%
Media Streaming Distribution Services, Social Networks, and Other Media Networks and Content Providers	1,303	1,407	8%	4%
Data Processing, Hosting, and Related Services	910	1,152	27%	3%
Motion Picture and Video Production	580	597	3%	2%

Source: Lightcast 2024.1

Table 6. Top Employers Posting Digital Art Occupations in Bay Region and North Bay Sub-Region (Apr. 2023 - Mar. 2024)

Employer	Bay	Employer	North Bay
Aquent	81	College Of Marin	6
Meta	75	Paint The Town	5
Electronic Arts	62	Sonoma County	5
Google	53	Epic Games	4
Apple	28	Mollie Stone's Markets	4
The Judge Group	27	Partnership Healthplan of California	4

Source: Lightcast

Educational Supply

There are 14 community colleges in the Bay Region issuing 180 awards on average annually (last 3 years ending 2021-22) on TOP 1030.00 - Graphic Art and Design. In the North Bay Sub-Region, there are three (3) community colleges that issued 27 awards on average annually (last 3 years) on this TOP code.

There are six (6) other CTE educational institutions in the Bay Region issuing 54 awards on average annually (last 3 years ending 2021-22) on CIP 50.0409- Graphic Design. There are two (2) other CTE educational institutions in the North Bay Sub-Region issuing six (6) awards on average annually (last 3 years) on this CIP code.

Table 7a. Community College Awards on TOP 1030.00 - Graphic Art and Design in Bay Region

College	Subregion	Associate Degree	High unit Certificate	Low unit Certificate	Total
De Anza	Silicon Valley	8	4	4	16
Diablo Valley	East Bay	8	3	0	11
Foothill	Silicon Valley	14	4	3	21
Laney	East Bay	7	7	1	15
Las Positas	East Bay	3	0	1	4
Los Medanos	East Bay	13	2	0	15
Marin	North Bay	0	0	2	2
Mission	Silicon Valley	12	7	0	19
Monterey	SC-Monterey	6	1	0	7
Napa	North Bay	7	0	0	7
Ohlone	East Bay	2	1	0	3
San Francisco	Mid-Peninsula	6	7	29	42
Santa Rosa	North Bay	6	7	5	18
Total		92	43	45	180

Source: Data Mart

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

Table 7b. Other CTE Institutions Awards on CIP 50.0409- Graphic Design in Bay Region

College	Subregion	Associate degree	Bachelor's degree	Total
California College of the Arts	Mid-Peninsula	0	22	22
Dominican University of California	North Bay	0	4	4
FIDM-Fashion Institute of Design & Merchandising-San Francisco	Mid-Peninsula	2	0	2
Notre Dame de Namur University	Mid-Peninsula	0	4	4
Pacific Union College	North Bay	0	2	2
San Jose State University	Silicon Valley	0	20	20
Total		2	52	54

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 2,750 annual openings for the Digital Art occupational cluster and 234 annual (3-year average) awards for an annual undersupply of 2,516 students. In the North Bay Sub-Region, there is also a gap with 247 annual openings and 33 annual (3-year average) awards for an annual undersupply of 214 students.

Student Outcomes

Table 8. Four Employment Outcomes Metrics for Students Who Took Courses on TOP 1030.00 - Graphic Art and Design

Metric Outcomes	Bay All CTE Programs	Napa Valley All CTE Programs	State 1030.00	Bay 1030.00	North Bay 1030.00	Napa Valley 1030.00
Students with a Job Closely Related to Their Field of Study	74%	82%	54%	60%	90%	N/A
Median Annual Earnings for SWP Exiting Students	\$53,090	\$48,682	\$29,175	\$37,797	\$30,781	\$36,102
Median Change in Earnings for SWP Exiting Students	24%	37%	28%	22%	39%	18%
Exiting Students Who Attained the Living Wage	54%	61%	36%	36%	36%	48%

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

Skills and Education

Table 9. Top Skills for Digital Art Occupations in Bay Region (Apr. 2023 - Mar. 2024)

Skill	Posting	Skill	Posting
Graphic Design	543	Project Management	282
Adobe Photoshop	528	Typography	263
Marketing	524	Workflow Management	241
Adobe Illustrator	474	Autodesk Maya	209
Animations	333	Prototyping	198
Adobe Creative Suite	329	Illustration	188
Visual Design	329	Product Design	172
User Experience (UX)	301	Branding	168
Adobe InDesign	289	Photography	167
Figma (Design Software)	286	User Interface (UI)	161

Source: Lightcast

Table 10. Education Requirements for Digital Art Occupations in Bay Region

Education Level	Job Postings	% of Total
High school or GED	96	7%
Associate degree	73	5%
Bachelor's degree & higher	1,303	88%

Source: Lightcast

Education Level	Job Postings	% of Total
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Note: 57% 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

Launchboard

Statewide CTE Outcomes Survey

Employment Development Department Unemployment Insurance Dataset

Living Insight Center for Community Economic Development

Chancellor's Office MIS system

Contacts

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