

**Labor Market Information Report**

**Animation Occupations**

**Foothill College**

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

**November 2022**

## Recommendation

Based on all available data, there appears to be an “undersupply” of Animation workers compared to the demand for this cluster of occupations in the Bay region and in the Silicon Valley sub-region (Santa Clara county). There is a projected annual gap of about 2,371 students in the Bay region and 605 students in the Silicon Valley 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 Foothill College and in the region.

This report profiles Animation Occupations in the 12 county Bay region and in the Silicon Valley sub-region for exploratory purposes related to an Animation for Graphics & Interactive Design program at Foothill 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: NA%
* **Art Directors (27-1011):** Formulate design concepts and presentation approaches for visual communications media, such as print, broadcasting, and advertising. Direct workers engaged in art work or layout design.
  Entry-Level Educational Requirement: Bachelor’s degree
  Training Requirement: None
  Percentage of Community College Award Holders or Some Postsecondary Coursework: 26%
* **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: 26%
* **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: 26%
* **Designers, All Other (27-1029):** All designers not listed separately.
  Entry-Level Educational Requirement: Bachelor’s degree
  Training Requirement: None
  Percentage of Community College Award Holders or Some Postsecondary Coursework: 29%

## Occupational Demand

**Table 1. Employment Outlook for Animation Occupations in Bay Region**

| **Occupation** | **2020 Jobs** | **2025 Jobs** | **5-yr Change** | **5-yr % Change** | **5-yr Total Openings** | **Annual Openings** | **25% Hourly Earning** | **Median Hourly Wage** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Web and Digital Interface Designers | 5,870 | 6,911 | 1,041 | 18% | 3,388 | 678 | $35 | $58 |
| Art Directors | 4,020 | 3,941 | -80 | -2% | 2,123 | 425 | $17 | $45 |
| Special Effects Artists and Animators | 3,664 | 2,976 | -688 | -19% | 1,701 | 340 | $27 | $46 |
| Graphic Designers | 10,678 | 10,976 | 298 | 3% | 5,377 | 1,075 | $22 | $33 |
| Designers, All Other | 2,504 | 2,514 | 10 | 0% | 1,302 | 260 | $16 | $30 |
| **Total** | **26,736** | **27,317** | **581** | **2%** | **13,892** | **2,778** |  |  |
| Source: EMSI 2022.3 |

**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 Animation Occupations in Silicon Valley Sub-region**

| **Occupation** | **2020 Jobs** | **2025 Jobs** | **5-yr Change** | **5-yr % Change** | **5-yr Total Openings** | **Annual Openings** | **25% Hourly Earning** | **Median Hourly Wage** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Web and Digital Interface Designers | 1,798 | 2,105 | 307 | 17% | 1,004 | 201 | $39 | $66 |
| Art Directors | 912 | 795 | -118 | -13% | 433 | 87 | $22 | $58 |
| Special Effects Artists and Animators | 1,271 | 780 | -491 | -39% | 482 | 96 | $31 | $45 |
| Graphic Designers | 2,372 | 2,357 | -15 | -1% | 1,094 | 219 | $24 | $35 |
| Designers, All Other | 507 | 540 | 33 | 7% | 303 | 61 | $19 | $40 |
| **Total** | **6,860** | **6,577** | **-283** | **-4%** | **3,316** | **664** |  |  |
| Source: EMSI 2022.3 |

**Silicon Valley Sub-Region includes:** Santa Clara County

### Job Postings in Bay Region and Silicon Valley Sub-Region

**Table 3. Number of Job Postings by Occupation for latest 12 months (Oct. 2021 – Sept. 2022)**

| **Occupation** | **Bay Region** | **Silicon Valley** |
| --- | --- | --- |
| Graphic Designers | 3,329 | 1,129 |
| Designers, All Other | 2,502 | 654 |
| Computer Occupations, All Other | 1,672 | 765 |
| Art Directors | 1,134 | 277 |
| Multimedia Artists and Animators | 775 | 293 |
| Source: Burning Glass |

**Table 4a. Top Job Titles for Animation Occupations for latest 12 months (Oct. 2021 – Sept. 2022) - Bay Region**

| **Title** | **Bay** | **Title** | **Bay** |
| --- | --- | --- | --- |
| Graphic Designer | 596 | Senior Visual Designer | 78 |
| Visual Designer | 227 | Senior Consultant | 76 |
| Designer | 178 | Ux/Visual Designer II | 74 |
| Art Director | 161 | Production Designer | 68 |
| Creative Director | 122 | Brand Designer | 62 |
| Senior Designer | 118 | Junior Designer | 59 |
| Ux/Visual Designer III | 95 | Interaction Designer | 55 |
| Content Designer | 91 | Junior Graphic Designer | 49 |
| Senior Graphic Designer | 81 | Ux/Visual Designer | 46 |
| Source: Burning Glass**Table 4b. Top Job Titles for Animation Occupations for latest 12 months (Oct. 2021 – Sept. 2022) - Silicon Valley Sub-Region** |

| **Title** | **Silicon Valley** | **Title** | **Silicon Valley** |
| --- | --- | --- | --- |
| Graphic Designer | 151 | Interaction Designer | 31 |
| Ux/Visual Designer III | 61 | Production Designer | 29 |
| Visual Designer | 58 | Senior Designer | 28 |
| Ux/Visual Designer II | 39 | Content Designer | 25 |
| Designer | 37 | Technical Marketing Engineer | 22 |
| Ux/Visual Designer | 34 | Art Director, Interactive | 20 |
| Senior Digital Design Engineer | 33 | Senior Graphic Designer | 20 |
| Senior Visual Designer | 33 | Creative Director | 19 |
| Art Director | 32 | Creative Designer | 15 |
| Source: Burning Glass |

## Industry Concentration

**Table 5. Industries hiring Animation Workers in Bay Region**

| **Industry - 6 Digit NAICS (No. American Industry Classification) Codes** | **Jobs in Industry (2020)** | **Jobs in Industry (2025)** | **% Change (2020-25)** | **% Occupation Group in Industry (2020)** |
| --- | --- | --- | --- | --- |
| Graphic Design Services | 2,883 | 2,682 | -7% | 11% |
| Interior Design Services | 2,423 | 2,616 | 8% | 9% |
| Internet Publishing and Broadcasting and Web Search Portals | 2,561 | 2,971 | 16% | 9% |
| Software Publishers | 2,555 | 2,158 | -16% | 7% |
| Custom Computer Programming Services | 1,784 | 2,035 | 14% | 7% |
| Computer Systems Design Services | 967 | 1,033 | 7% | 4% |
| Advertising Agencies | 645 | 576 | -11% | 2% |
| Independent Artists, Writers, and Performers | 489 | 553 | 13% | 2% |
| Other Specialized Design Services | 494 | 518 | 5% | 2% |
| Industrial Design Services | 488 | 507 | 4% | 2% |
| Source: EMSI 2022.3 |

| **Employer** | **Bay** | **Employer** | **Silicon Valley** |
| --- | --- | --- | --- |
| Deloitte | 539 | Deloitte | 367 |
| Apple Inc. | 150 | Apple Inc. | 150 |
| Google Inc. | 132 | Google Inc. | 81 |
| Facebook | 131 | Pinnacle Group | 45 |
| Wells Fargo | 77 | Palo Alto Networks | 37 |
| Walmart/Sam's | 76 | Russell Tobin & Associates | 32 |
| Source: Burning Glass |

**Table 6. Top Employers Posting Animation Occupations in Bay Region and Silicon Valley Sub-Region (Oct. 2021 – Sept. 2022)**

## Educational Supply

There are 11 community colleges in the Bay Region issuing 163 awards on average annually (last 3 years ending 2019-20) on TOP 0614.40 Animation. In the Silicon Valley Sub-Region, there are three (3) community colleges that issued 12 awards on average annually (last 3 years) on this TOP code.

There are a four (4) other CTE educational institutions in the Bay Region issuing 244 awards on average annually (last 3 years ending 2019-20) on CIP 10.0304 - Animation, Interactive Technology, Video Graphics and Special Effects. There is one (1) other CTE educational institution in the Silicon Valley Sub-Region issuing 47 awards on average annually (last 3 years) on this CIP code.

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

| **College** | **Subregion** | **Associate Degree** | **Award < 1 academic yr.** | **Total** |
| --- | --- | --- | --- | --- |
| Berkeley City College | East Bay | 9 | 27 | 36 |
| Canada College | Mid-Peninsula | 5 | 5 | 10 |
| City College of San Francisco | Mid-Peninsula | 0 | 7 | 7 |
| College of Marin | North Bay | 3 | 3 | 6 |
| De Anza College | Silicon Valley | 9 | 1 | 10 |
| Diablo Valley College | East Bay | 11 | 6 | 17 |
| Foothill College | Silicon Valley | 0 | 1 | 1 |
| Hartnell College | SC-Monterey | 9 | 9 | 18 |
| Ohlone College | East Bay | 4 | 10 | 14 |
| Santa Rosa Junior College | North Bay | 24 | 19 | 43 |
| West Valley College | Silicon Valley | 1 | 0 | 1 |
| **Total** |  | **75** | **88** | **163** |

Note: The annual average for awards is 2017-18 to 2019-20.

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

| **College** | **Subregion** | **Associate Degree** | **Bachelor's degree** | **Total** |
| --- | --- | --- | --- | --- |
| Academy of Art University | Mid-Peninsula | 11 | 119 | 130 |
| California College of the Arts | Mid-Peninsula | 0 | 48 | 48 |
| Cogswell University of Silicon Valley | Silicon Valley | 0 | 47 | 47 |
| SAE Expression College | East Bay | 0 | 19 | 19 |
| **Total** |  | **11** | **233** | **244** |

*Note: The annual average for awards is 2017-18 to 2019-20.*

## Gap Analysis

Based on the data included in this report, there is a large labor market gap in the Bay region with 2,778 annual openings for the Animation occupational cluster and 407 annual (3-year average) awards for an annual undersupply of 2,371 students. In the Silicon Valley Sub-Region, there is also a gap with 664 annual openings and 59 annual (3-year average) awards for an annual undersupply of 605 students.

## Student Outcomes

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

| **Metric Outcomes** | **Bay All CTE Programs** | **Foothill All CTE Programs** | **State 0614.40** | **Bay 0614.40** | **Silicon Valley 0614.40** | **Foothill 0614.40** |
| --- | --- | --- | --- | --- | --- | --- |
| Students with a Job Closely Related to Their Field of Study | 74% | 91% | 47% | 47% | N/A | N/A |
| Median Annual Earnings for SWP Exiting Students | $47,419 | $66,288 | $22,618 | $26,687 | $23,400 | N/A |
| Median Change in Earnings for SWP Exiting Students | 23% | 43% | 41% | 19% | 88% | N/A |
| Exiting Students Who Attained the Living Wage | 52% | 64% | 24% | 24% | N/A | N/A |
| Source: Launchboard Strong Workforce Program Median of 2017 to 2020. |

## Skills, Certifications and Education

**Table 9. Top Skills for Animation Occupations in Bay Region (Oct. 2021 – Sept. 2022)**

| **Skill** | **Posting** | **Skill** | **Posting** |
| --- | --- | --- | --- |
| Adobe Photoshop | 3,838 | Adobe Aftereffects | 858 |
| Adobe Indesign | 3,149 | Prototyping | 798 |
| Graphic Design | 2,977 | Process Design | 796 |
| Adobe Illustrator | 2,791 | Digital Design | 787 |
| Adobe Acrobat | 2,539 | Product Design | 774 |
| Adobe Creative Suite | 2,498 | Scheduling | 697 |
| Visual Design | 1,656 | Illustration | 663 |
| Typesetting | 1,566 | Vaccination | 628 |
| Project Management | 1,534 | Project Design | 620 |
| Art Direction | 1,174 | Interaction Design | 619 |
| Social Media | 1,114 | Customer Service | 614 |
| Animation | 1,052 | Packaging | 554 |
| Budgeting | 950 | Photography | 498 |
| Web Site Design | 889 | Creative Direction | 478 |
| Source: Burning Glass |

**Table 10. Certifications for Animation Occupations in Bay Region (Oct. 2021 – Sept. 2022)**

| **Certification** | **Posting** | **Certification** | **Posting** |
| --- | --- | --- | --- |
| Driver's License | 126 | Security Clearance | 22 |
| Certified Information Systems Security Professional (CISSP) | 66 | Project Management Professional (PMP) | 22 |
| Project Management Certification | 52 | CompTIA Security+ | 21 |
| Certified Information Systems Auditor (CISA) | 45 | Cisco Certified Network Professional (CCNP) | 21 |
| Cisco Certified Network Associate (CCNA) | 38 | SANS/GIAC Certification | 15 |
| IT Infrastructure Library (ITIL) Certification | 31 | Registered Communications Distribution Designer (RCDD) | 10 |
| Cisco Certified Internetwork Expert (CCIE) | 30 | Certified Scrum Professional (CSP) | 10 |
| Certified Information Security Manager (CISM) | 28 |  |  |
| Source: Burning Glass |

Note: 94% of records have been excluded because they do not include a certification. As a result, the chart below may not be representative of the full sample.

**Table 11. Education Requirements for Animation Occupations in Bay Region**

| **Education (minimum advertised)** | **Latest 12 Mos. Postings** | **Percent 12 Mos. Postings** |
| --- | --- | --- |
| High school or vocational training | 372 | 7% |
| Associate's degree | 185 | 3% |
| Bachelor's degree and higher | 4,946 | 90% |
| Source: Burning Glass |

Note: 42% of records have been excluded because they do not include a degree level. As a result, the chart below may not be representative of the full sample.

## Methodology

Occupations for this report were identified by use of skills listed in O\*Net descriptions and job descriptions in Burning Glass. Labor demand data is sourced from Economic Modeling Specialists International (EMSI) occupation data and Burning Glass job postings data. Educational supply and student outcomes data is retrieved from multiple sources, including CTE Launchboard and CCCCO Data Mart.

## Sources

O\*Net Online
Labor Insight/Jobs (Burning Glass)
Economic Modeling Specialists International (EMSI)
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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