** Photo Illustration Occupations**

**Labor Market Information Report**

**Solano College**

Prepared by the San Francisco Bay Center of Excellence

for Labor Market Research

April 2019

# Recommendation

Based on all available data, there appears to be an undersupply of Photo Illustration workers compared to the demand for this cluster of occupations in the Bay region and in the North Bay sub-region (Marin, Napa, Solano and Sonoma Counties.) There is a projected annual gap of about 2,200 students in the Bay region and 274 students in the North Bay Sub-Region.

This report also provides student outcomes data on employment and earnings for programs on TOP 1012.00 - Applied Photography 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 Solano College and in the region.

# Introduction

This report profiles Photo Illustration Occupations in the 12 county Bay region and in the North Bay sub-region for a proposed new program at Solano College. Solano College provided the following supplemental information regarding the demand for the proposed new program:

*Predictions for jobs in photography, according to various online resources (e.g.*[*http://www.innovatorsguide.org/occupations/photographer\_job\_outlook.htm)*](http://www.innovatorsguide.org/occupations/photographer_job_outlook.htm%29)*, indicate that social media and online publications are the largest new area for photography. However, to be competitive, photographers must have strong skills in related areas, including working knowledge of a range of imaging software programs and applications, and an understanding of web and graphic design. The industry advisory council for the Solano Photo Department, at our most recent meeting on March 29, 2019 confirmed this data and unanimously supported this program as a way of expanding student skills and creating increased job opportunities for them upon completion.*

|  |
| --- |
| * **Photographers (SOC 27-4021):** Photograph people, landscapes, merchandise, orother subjects, using digital or film cameras and equipment. May develop negatives or use computer software to produce finished images and prints. Includes scientific photographers, aerial photographers, and photojournalists.
 |
| Entry-Level Educational Requirement: High school *diploma or equivalent* |
| Training Requirement: Long-term *on-the-job training* |
| Percentage of Community College Award Holders or Some Postsecondary Coursework: 34% |
| * **Art Directors (SOC 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: 27*%* |
| * **Graphic Designers (SOC 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: 29*%* |
| * **Media and Communication Workers, All Other (SOC 27-3099):** All media and communication workers not listed separately.
 |
| Entry-Level Educational Requirement: High *school diploma or equivalent* |
| Training Requirement: Short-term *on-the-job training* |
| Percentage of Community College Award Holders or Some Postsecondary Coursework: 32*%* |

# Occupational Demand

**Table 1. Employment Outlook for Photo Illustration Occupations in Bay Region**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Occupation  | 2017 Jobs | 2022 Jobs | 5-Yr Change | 5-Yr % Change | 5-Yr Open-ings | Average Annual Open-ings | 10% Hourly Wage | Median Hourly Wage |
| Photographers | 5,197 | 5,692 | 495  | 10% | 2,691 | 538 | $13.30  | $17.95  |
| Art Directors | 3,333 | 3,534 | 201  | 6% | 1,546 | 309 | $14.77  | $34.64  |
| Graphic Designers | 12,797 | 13,191 | 393  | 3% | 6,476 | 1,295 | $16.35  | $23.65  |
| Media and Communication Workers, All Other | 1,047 | 1,132 | 85  | 8% | 573 | 115 | $13.14  | $23.13  |
| **Total** | **22,374** | **23,549** | **1,175**  | **5%** | **11,285** | **2,257** | **$15.26**  | **$23.94**  |

*Source: EMSI 2019.1*

**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 Photo Illustration Occupations in North Bay Sub-Region**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Occupation  | 2017 Jobs | 2022 Jobs | 5-Yr Change | 5-Yr % Change | 5-Yr Open-ings | Average Annual Open-ings | 10% Hourly Wage | Median Hourly Wage |
| Photographers | 801 | 871 | 70  | 9% | 403 | 81 | $13.37  | $17.86  |
| Art Directors | 373 | 384 | 12  | 3% | 161 | 32 | $13.62  | $17.90  |
| Graphic Designers | 1,693 | 1,689 | (5) |  (0%) | 797 | 159 | $15.26  | $20.86  |
| Media and Communication Workers, All Other | 76 | 80 | 4  | 5% | 40 | 8 | $12.27  | $23.16  |
| **TOTAL** | **2,943** | **3,023** | **80**  | **3%** | **1,402** | **280** | **$14.46**  | **$19.73**  |

*Source: EMSI 2019.1*

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

### Job Postings in Bay Region and North Bay Sub-Region

**Table 3. Number of Job Postings by Occupation for latest 12 months (April 2018 - March 2019)**

| Occupation | Bay Region | North Bay |
| --- | --- | --- |
|  Graphic Designers (27-1024.00) | 4,272 | 147 |
|  Art Directors (27-1011.00) | 1,004 | 18 |
|  Photographers (27-4021.00) | 936 | 64 |
|  **Total** |  **6,212**  |  **229**  |

*Source: Burning Glass*

**Table 4. Top Job Titles for Photo Illustration Occupations for latest 12 months (April 2018 - March 2019)**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Common Title | Bay | North Bay | Common Title | Bay | North Bay |
| Graphic Designer | 1,752 | 78 | User Interface /User Experience Designer | 33 | 0 |
| Visual Designer | 1,109 | 6 | Production Manager | 32 | 4 |
| Photographer | 624 | 47 | Senior Digital Design Engineer | 31 | 0 |
| Creative Director | 568 | 7 | Real Estate Photographer | 29 | 3 |
| Art Director | 379 | 9 | Product Designer | 23 | 1 |
| Production Artist | 239 | 21 | Wedding Photographer | 23 | 0 |
| Production Designer | 124 | 1 | Assistant, Photography, Information  | 22 | 2 |
| School Photographer | 106 | 7 | Design Producer | 19 | 0 |
| Junior Graphic Designer | 96 | 3 | Junior Visual Designer | 19 | 0 |
| Graphic Artist | 85 | 9 | Creative Designer | 16 | 1 |
| Freelance Graphic Designer | 68 | 2 | Interactive Designer | 16 | 0 |
| Lead Visual Designer | 35 | 0 | Assistant, Photography, Information And Technology Industry | 15 | 1 |

*Source: Burning Glass*

# Industry Concentration

**Table 5. Industries hiring Photo Illustration Workers in Bay Region**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Industry – 6 Digit NAICS (No. American Industry Classification) Codes | Jobs in Industry (2017) | Jobs in Industry (2022) | % Change (2017-22) | % in Industry (2017) |
| Internet Publishing and Broadcasting and Web Search Portals (519130) | 983 | 1,315 | 8% | 1.2% |
| Graphic Design Services (541430) | 630 | 489 | 5% | 24.0% |
| Advertising Agencies (541810) | 577 | 586 | 5% | 8.0% |
| Custom Computer Programming Services (541511) | 524 | 590 | 4% | 0.5% |
| Interior Design Services (541410) | 501 | 559 | 4% | 24.4% |
| Corporate, Subsidiary, and Regional Managing Offices (551114) | 401 | 424 | 3% | 0.5% |
| Electronic Shopping and Mail-Order Houses (454110) | 333 | 405 | 3% | 1.6% |
| Photography Studios, Portrait (541921) | 332 | 259 | 3% | 36.8% |
| Software Publishers (511210) | 316 | 370 | 3% | 0.6% |
| Commercial Printing (except Screen and Books) (323111) | 309 | 247 | 3% | 6.3% |
| Computer Systems Design Services (541512) | 288 | 315 | 2% | 0.5% |
| Public Relations Agencies (541820) | 271 | 283 | 2% | 8.1% |
| Newspaper Publishers (511110) | 220 | 156 | 2% | 7.5% |
| Industrial Design Services (541420) | 198 | 230 | 2% | 22.8% |
| Commercial Photography (541922) | 187 | 164 | 2% | 43.9% |
| Motion Picture and Video Production (512110) | 182 | 194 | 2% | 4.8% |
| Administrative Management and General Management Consulting Services (541611) | 178 | 213 | 1% | 0.9% |
| Book Publishers (511130) | 162 | 144 | 1% | 7.5% |
| Periodical Publishers (511120) | 157 | 163 | 1% | 6.7% |
| Other Services Related to Advertising (541890) | 154 | 155 | 1% | 6.1% |
| Other Specialized Design Services (541490) | 152 | 181 | 1% | 24.7% |

*Source: EMSI 2019.1*

**Table 6. Top Employers Posting Photo Illustration Occupations in Bay Region and North Bay Sub-Region (April 2018 - March 2019)**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Employer | Bay | Employer | Bay | Employer | North Bay |
| Lifetouch | 124 | Sephora | 19 | Elsa Corporation | 13 |
| Pro Motionpix, Llc | 103 | Levi Strauss | 17 | Pro Motionpix, Llc | 11 |
| Apple Inc. | 77 | Uber | 17 | Lifetouch | 10 |
| Facebook | 76 | Wunderland | 17 | Navitas Organics | 5 |
| Iconic Group | 75 | 80Twenty | 16 | Six Flags Incorporated | 5 |
| Williams-Sonoma | 39 | Ideo | 16 | Bella Baby Photography | 4 |
| Gradimages | 35 | Cisco Systems Inc | 15 | Jelly Belly Candy Company | 4 |
| Google Inc. | 33 | Elsa Corporation | 15 | Navitas Naturals | 4 |
| Bella Baby Photography | 29 | Capital Markets Placement | 14 | Iconic Group | 3 |
| Spartan Tool Llc | 29 | Clorox Company | 14 | Salvation Army | 3 |
| Dealervision Com | 28 | Hogarth Worldwide | 14 | Sonic Drive-In | 3 |
| Walmart / Sam's | 26 | Globa Channel Mgmt | 13 | Spartan Tool Llc | 3 |
| Lululemon | 24 | IBM | 13 | Wx Brands | 3 |
| Gap Inc. | 23 | Intel Corporation | 13 | 2K Games | 2 |
| Mom365 | 23 | University San Francisco | 13 | American Greetings Corp | 2 |
| Stanford University | 22 | VF Corporation | 13 | Biomarin Pharmaceutical  | 2 |
| Xcite Advertising | 20 | Artisan Creative | 12 | California State University | 2 |
| Jbcconnect | 19 | San Jose State University | 12 | California State University Office Of The Chancellor | 2 |
| Salesforce | 19 | Costar Group | 11 | Capital Markets Placement | 2 |

*Source: Burning Glass*

# Educational Supply

There are seven community colleges in the Bay Region issuing 57 awards on average annually (last 3 years) on TOP 1012.00 - Applied Photography. There are two colleges in the North Bay Sub-Region issuing 6 awards on average annually (last 3 years) on this TOP code.

**Table 7. Awards on TOP 1012.00 - Applied Photography in the Bay Region**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| College | Sub-Region | Headcount | Associates | Certificates | Total |
| **Chabot Hayward** | East Bay | 271 | 2 |  | 2 |
| **Deanza** | Silicon Valley | 685 | 2 | 6 | 8 |
| **Diablo Valley** | East Bay | 94 |  |  |  |
| **Foothill** | Silicon Valley | 71 |  |  |  |
| **Laney** | East Bay | 382 | 0 | 1 | 1 |
| **Las Positas** | East Bay | 309 |  |  |  |
| **Marin** | North Bay | 74 |  |  |  |
| **Napa** | North Bay | 257 | 0 | 1 | 1 |
| **San Francisco** | Mid-Peninsula | 432 |   | 39 | 39 |
| **San Mateo** | Mid-Peninsula | 98 |   |   |   |
| **Skyline** | Mid-Peninsula | 90 |   |   |   |
| **Solano** | North Bay | 521 | 2 | 3 | 5 |
| **West Valley** | Silicon Valley |   |   | 1 | 1 |
| **Total Bay Region** | **3,284** | **6** | **51** | **57** |
| **Total North Bay Sub-Region** | **852** | **2** | **4** | **6** |

# *Source: IPEDS, Data Mart and Launchboard*

NOTE: Headcount of students who took one or more courses is for 2016-17. The annual average for awards is 2014-17 unless there are only awards in 2016-17. The annual average for other postsecondary is for 2013-16.

# Gap Analysis

Based on the data included in this report, there is a large labor market gap in the Bay region with 2,257 annual openings for the Photo Illustration occupational cluster and 57 annual (3-year average) awards for an annual undersupply of 2,200 students. In the North Bay Sub-Region, there is also a gap with 280 annual openings and 6 annual (3-year average) awards for an annual undersupply of 274 students.

# Student Outcomes

**Table 8. Four Employment Outcomes Metrics for Students Who Took Courses on TOP 1012.00 - Applied Photography**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 2015-16 | Bay (All CTE Programs) | Solano College (All CTE Programs) | State (1012.00) | Bay (1012.00) | North Bay (1012.00) | Solano College (1012.00) |
| % Employed Four Quarters After Exit | 74% | 71% | 58% | 58% | 47% | n/a |
| Median Quarterly Earnings Two Quarters After Exit | $10,550 | $7,671 | $5,857 | $7,588 | $8,843 | n/a |
| Median % Change in Earnings | 46% | 57% | 37% | 38% | 58% | n/a |
| % of Students Earning a Living Wage | 63% | 49% | 37% | 44% | n/a | n/a |

*Source: Launchboard Pipeline (version available on 4/23/19)*

# Skills and Education

**Table 9. Top Skills for Photo Illustration Occupations in Bay Region (April 2018 - March 2019)**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Skill | Postings | Skill | Postings | Skill | Postings |
| Adobe Photoshop | 3,459 | Adobe Aftereffects | 536 | Digital Marketing | 331 |
| Graphic Design | 3,026 | Digital Design | 528 | Brand Identity | 321 |
| Adobe Indesign | 2,772 | Packaging | 523 | Product Design | 313 |
| Adobe Illustrator | 2,212 | Animation | 465 | Print Production | 305 |
| Adobe Acrobat | 2,017 | Interaction Design | 448 | Retail Industry Knowledge | 296 |
| Adobe Creative Suite | 1,988 | Scheduling | 428 | UX Wireframes | 287 |
| Visual Design | 1,648 | Prototyping | 416 | Creative Design | 282 |
| Typesetting | 1,477 | E-Commerce | 383 | Lifting Ability | 256 |
| Photography | 1,243 | Customer Service | 378 | Video Editing | 241 |
| Art Direction | 919 | Creative Direction | 375 | Facebook | 221 |
| Social Media | 906 | User Interface (UI) Design | 373 | Sales | 209 |
| Web Site Design | 897 | Process Design | 363 | Copywriting | 206 |
| Project Management | 643 | Project Design | 354 | Multimedia | 206 |
| Illustration | 584 | Marketing Materials | 338 | Motion Graphics | 203 |
| Budgeting | 541 | Infographics | 336 | JavaScript | 202 |

*Source: Burning Glass*

**Table 10. Education Requirements for Photo Illustration Occupations in Bay Region**

Note: 53% 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.

|  |  |
| --- | --- |
| Education (minimum advertised) | Latest 12 Mos. Postings |
| High school or vocational training | 374 (13%) |
| Associate Degree | 67 (2%) |
| Bachelor’s Degree or Higher | 2,492 (85%) |

*Source: Burning Glass*

# 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/](http://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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