

# Film Production and Post-Production Occupations

# Labor Market Information Report

# Diablo Valley College

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

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## Recommendation

Based on all available data, there appears to be an “undersupply” of Film Production and Post-Production workers compared to the demand for this cluster of occupations in the Bay region and in the East Bay sub-region (Alameda and Contra Costa counties). There is a projected annual gap of about 2,001 students in the Bay region and 453 students in the East Bay Sub-Region.

## Introduction

This report provides student outcomes data on employment and earnings for TOP 0612.20 - Film Production 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 Diablo Valley College and in the region.

This report profiles Film Production and Post-Production Occupations in the 12 county Bay region and in the East Bay sub-region for a proposed new program at Diablo Valley College.

* **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%
* **Producers and Directors (27-2012):** Produce or direct stage, television, radio, video, or motion picture productions for entertainment, information, or instruction. Responsible for creative decisions, such as interpretation of script, choice of actors or guests, set design, sound, special effects, and choreography.
  Entry-Level Educational Requirement: Bachelor’s degree
  Training Requirement: None
  Percentage of Community College Award Holders or Some Postsecondary Coursework: 20%
* **Audio and Video Technicians (27-4011):** Set up, or set up and operate audio and video equipment including microphones, sound speakers, video screens, projectors, video monitors, recording equipment, connecting wires and cables, sound and mixing boards, and related electronic equipment for concerts, sports events, meetings and conventions, presentations, and news conferences. May also set up and operate associated spotlights and other custom lighting systems. Excludes “Sound Engineering Technicians” (27-4014).
  Entry-Level Educational Requirement: Postsecondary nondegree award
  Training Requirement: Short-term on-the-job training
  Percentage of Community College Award Holders or Some Postsecondary Coursework: 39%
* **Camera Operators, Television, Video, and Film (27-4031):** Operate television, video, or motion picture camera to record images or scenes for various purposes, such as TV broadcasts, advertising, video production, or motion pictures.
  Entry-Level Educational Requirement: Bachelor’s degree
  Training Requirement: None
  Percentage of Community College Award Holders or Some Postsecondary Coursework: 24%
* **Film and Video Editors (27-4032):** Edit moving images on film, video, or other media. May edit or synchronize soundtracks with images. Excludes “Sound Engineering Technicians”(27-4014).
  Entry-Level Educational Requirement: Bachelor’s degree
  Training Requirement: None
  Percentage of Community College Award Holders or Some Postsecondary Coursework: 24%

## Occupational Demand

**Table 1. Employment Outlook for Film Production and Post-Production Occupations in Bay Region**

| **Occupation** | **2019 Jobs** | **2024 Jobs** | **5-yr Change** | **5-yr % Change** | **5-yr Total Openings** | **Annual Openings** | **25% Hourly Earning** | **Median Hourly Wage** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Special Effects Artists and Animators | 5,227 | 5,632 | 405 | 8% | 3,364 | 673 | $28.71 | $40.79 |
| Producers and Directors | 5,580 | 5,915 | 335 | 6% | 3,190 | 638 | $28.49 | $40.81 |
| Audio and Video Technicians | 3,422 | 3,748 | 326 | 10% | 2,243 | 449 | $19.63 | $27.03 |
| Camera Operators, Television, Video, and Film | 651 | 686 | 35 | 5% | 373 | 75 | $17.22 | $24.98 |
| Film and Video Editors | 1,645 | 1,789 | 144 | 9% | 1,000 | 200 | $22.51 | $31.32 |
| **Total** | **16,525** | **17,770** | **1,245** | **8%** | **10,170** | **2,035** | **$25.69** | **$36.38** |
| Source: EMSI 2020.4 |

**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 Film Production and Post-Production Occupations in East Bay Sub-region**

| **Occupation** | **2019 Jobs** | **2024 Jobs** | **5-yr Change** | **5-yr % Change** | **5-yr Total Openings** | **Annual Openings** | **25% Hourly Earning** | **Median Hourly Wage** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Special Effects Artists and Animators | 1,102 | 1,121 | 19 | 2% | 627 | 125 | $24.65 | $37.06 |
| Producers and Directors | 1,351 | 1,401 | 50 | 4% | 732 | 146 | $26.01 | $38.09 |
| Audio and Video Technicians | 859 | 930 | 71 | 8% | 548 | 110 | $19.10 | $26.31 |
| Camera Operators, Television, Video, and Film | 202 | 217 | 15 | 7% | 118 | 24 | $16.86 | $25.06 |
| Film and Video Editors | 479 | 519 | 40 | 8% | 287 | 57 | $22.96 | $32.71 |
| **Total** | **3,993** | **4,188** | **195** | **5%** | **2,312** | **462** | **$23.32** | **$33.97** |
| Source: EMSI 2020.4 |

**East Bay Sub-Region includes:** Alameda, Contra Costa Counties

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

**Table 3. Number of Job Postings by Occupation for latest 12 months (Jan 2020-Dec 2020)**

| **Occupation** | **Bay Region** | **East Bay** |
| --- | --- | --- |
| Producers | 951 | 98 |
| Multimedia Artists and Animators | 610 | 92 |
| Audio and Video Equipment Technicians | 441 | 88 |
| Camera Operators, Television, Video, and Motion Picture | 203 | 43 |
| Film and Video Editors | 108 | 9 |
| Directors- Stage, Motion Pictures, Television, and Radio | 29 | 3 |
| Program Directors | 14 | 1 |
| Talent Directors | 9 | 4 |
| Technical Directors/Managers | 3 | 0 |
| Source: Burning Glass |

**Table 4a. Top Job Titles for Film Production and Post-Production Occupations for latest 12 months (Jan 2020-Dec 2020) Bay Region**

| **Title** | **Bay** | **Title** | **Bay** |
| --- | --- | --- | --- |
| Producer | 98 | Creative Producer | 29 |
| Audio Visual Technician | 71 | Motion Graphic Designer | 25 |
| Interaction Designer | 55 | Senior Producer | 22 |
| Associate Producer | 50 | Localization Producer | 22 |
| Freelance Videographer | 43 | Videographer | 20 |
| Video Producer | 42 | Senior Interaction Designer | 20 |
| Video Editor | 37 | Animator | 19 |
| Digital Producer | 37 | Interactive Designer | 18 |
| Executive Producer | 30 | Paid Media Manager | 15 |
| Source: Burning Glass |

**Table 4b. Top Job Titles for Film Production and Post-Production Occupations for latest 12 months (Jan 2020-Dec 2020) East Bay Sub-Region**

| **Title** | **East Bay** | **Title** | **East Bay** |
| --- | --- | --- | --- |
| Audio Visual Technician | 15 | News Producer | 5 |
| Freelance Videographer | 13 | Audio Visual Systems Technician | 5 |
| Executive Producer | 11 | Videographer And Editor | 4 |
| Master Interaction Designer | 9 | Vfx Artist | 4 |
| Digital Producer | 9 | Senior 3D Generalist Animator | 4 |
| Animator | 8 | Senior 3D Designer Museum Exhibition Designer | 4 |
| Webinar Technical Producer | 6 | Paid Media Manager | 4 |
| Video Producer | 6 | Lead Vfx Artist | 4 |
| Videographer | 5 | Lead Commercial Audiovisual Installation Technician | 4 |
| Source: Burning Glass |

## Industry Concentration

**Table 5. Industries hiring Film Production and Post-Production Workers in Bay Region**

| **Industry – 6 Digit NAICS (No. American Industry Classification) Codes** | **Jobs in Industry (2019)** | **Jobs in Industry (2024)** | **% Change (2019-24)** | **% Occupation Group in Industry (2019)** |
| --- | --- | --- | --- | --- |
| Motion Picture and Video Production | 3,004 | 3,226 | 7% | 18% |
| Internet Publishing and Broadcasting and Web Search Portals | 1,940 | 2,402 | 24% | 12% |
| Software Publishers | 1,464 | 1,723 | 18% | 9% |
| Television Broadcasting | 850 | 867 | 2% | 5% |
| Custom Computer Programming Services | 575 | 656 | 14% | 3% |
| Teleproduction and Other Postproduction Services | 577 | 522 | -10% | 3% |
| Independent Artists, Writers, and Performers | 498 | 494 | -1% | 3% |
| Cable and Other Subscription Programming | 449 | 379 | -16% | 3% |
| Computer Systems Design Services | 317 | 348 | 10% | 2% |
| Theater Companies and Dinner Theaters | 309 | 326 | 6% | 2% |
| Source: EMSI 2020.4 |

**Table 6. Top Employers Posting Film Production and Post-Production Occupations in Bay Region and East Bay Sub-Region (Jan 2020-Dec 2020)**

| **Employer** | **Bay** | **Employer** | **East Bay** |
| --- | --- | --- | --- |
| Apple Inc. | 55 | Striking Distance Studios | 11 |
| Psav | 33 | Lawrence Livermore National Laboratory | 9 |
| Kalo | 30 | Kalo | 9 |
| Psav Presentation Services | 25 | U.S. Bancorp | 8 |
| Gap Inc. | 24 | Hs Audio Visual | 7 |
| Facebook | 24 | Exploratorium | 7 |
| Disney | 20 | Pubg San Ramon | 6 |
| Activision | 19 | Pubg | 5 |
| Electronic Arts Incorporated | 18 | Avidex | 5 |
| Hs Audio Visual | 17 | Sirius XM Radio | 4 |
| Exploratorium | 17 | Psav Presentation Services | 4 |
| Curology | 17 | Lucid Motors Inc | 4 |
| Ubisoft | 16 | Freeman Incorporated | 4 |
| U.S. Bancorp | 16 | Facebook | 4 |
| Source: Burning Glass |

## Educational Supply

There are five (5) community colleges in the Bay Region issuing 34 awards on average annually (last 3 years ending 2018-19) on TOP 0612.20 - Film Production. In the East Bay Sub-Region, there are two (2) community colleges that issued 9 awards on average annually (last 3 years) on this TOP code.

**Table 7. Community College Awards on TOP 0612.20 - Film Production in Bay Region**

| **College** | **Subregion** | **Associate** | **Certificate Low** | **Total** |
| --- | --- | --- | --- | --- |
| Berkeley City | East Bay | 4 | 3 | 7 |
| Contra Costa | East Bay | 0 | 2 | 2 |
| De Anza | Silicon Valley | 4 | 0 | 4 |
| San Francisco | Mid-Peninsula | 6 | 0 | 6 |
| Santa Rosa | North Bay | 8 | 7 | 15 |
| **Total** |  | **22** | **12** | **34** |
| Source: Data Mart |

*Note: The annual average for awards is 2016-17 to 2018-19.*

## Gap Analysis

Based on the data included in this report, there is a large labor market gap in the Bay region with 2,035 annual openings for the Film Production and Post-Production occupational cluster and 34 annual (3-year average) awards for an annual undersupply of 2,001 students. In the East Bay Sub-Region, there is also a gap with 462 annual openings and 9 annual (3-year average) awards for an annual undersupply of 453 students.

## Student Outcomes

**Table 8. Four Employment Outcomes Metrics for Students Who Took Courses on TOP 0612.20 - Film Production**

| **2017-18** | **Bay****All CTE Program** | **Diablo Valley****All CTE Program** | **State 0612.20** | **Bay 0612.20** | **East Bay 0612.20** | **Diablo Valley 0612.20** |
| --- | --- | --- | --- | --- | --- | --- |
| % Employed Four Quarters After Exit | 67% | 60% | 59% | 58% | 62% | 65% |
| Median Quarterly Earning Two Quarters After Exit | $11,466 | $8,979 | $5,766 | $8,059 | $6,013 | NA |
| Median % Change in Earning | 31% | 35% | 45% | 27% | 113% | NA |
| % of Students Earning a Living Wage | 53% | 39% | 30% | 30% | NA | NA |
| Source: Launchboard Pipeline (version available on August 2020) |

## Skills, Certifications and Education

**Table 9. Top Skills for Film Production and Post-Production Occupations in Bay Region (Jan 2020-Dec 2020)**

| **Skill** | **Posting** | **Skill** | **Posting** |
| --- | --- | --- | --- |
| Adobe Photoshop | 444 | Adobe Premiere | 196 |
| Project Management | 440 | Broadcast Industry Knowledge | 193 |
| Scheduling | 415 | Videography | 178 |
| Budgeting | 405 | Customer Service | 156 |
| Video Production | 276 | Interaction Design | 151 |
| Animation | 272 | Quality Assurance and Control | 151 |
| Adobe Aftereffects | 270 | Music | 146 |
| Social Media | 263 | Facebook | 135 |
| Video Editing | 257 | Graphic Design | 132 |
| Adobe Illustrator | 255 | Visual Design | 127 |
| Adobe Indesign | 241 | Content Management | 117 |
| Adobe Acrobat | 226 | Youtube | 117 |
| Adobe Creative Suite | 225 | Multimedia | 113 |
| Maya | 206 | Motion Graphics | 112 |
| Source: Burning Glass |

**Table 10. Certifications for Film Production and Post-Production Occupations in Bay Region (Jan 2020-Dec 2020)**

| **Certification** | **Posting** | **Certification** | **Posting** |
| --- | --- | --- | --- |
| Driver's License | 162 | Certified ScrumMaster (CSM) | 3 |
| Chartered Property Casualty Underwriter (CPCU) | 13 | Microsoft Certified Professional (MCP) | 2 |
| Project Management Certification | 11 | Bio-Hazard Certification | 2 |
| Security Clearance | 10 | Audiovisual (AV) Certification | 2 |
| Certified Employee Benefit Specialist (CEBS) | 10 | Red Hat Certified Engineer (RHCE) | 1 |
| Project Management Professional (PMP) | 8 | Real Estate Certification | 1 |
| Property and Casualty License | 4 | OSHA Safety 30 Hour | 1 |
| Occupational Safety and Health Administration Certification | 4 | OSHA Forklift Certification | 1 |
| Cisco Certified Network Associate (CCNA) | 4 | North American Technician Excellence (NATE) | 1 |
| Chartered Life Underwriter (ClU) | 3 | Microsoft Certified IT Professional (MCITP) | 1 |
| Source: Burning Glass |

*Note: 90% 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 Film Production and Post-Production Occupations in Bay Region**

| **Education (minimum advertised)** | **Latest 12 Mos. Postings** | **Percent 12 Mos. Postings** |
| --- | --- | --- |
| High school or vocational training | 192 | 16% |
| Associate's degree | 35 | 3% |
| Bachelor's degree | 924 | 78% |
| Master's degree | 31 | 3% |
| Source: Burning Glass |

*Note: 50% 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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