**Pre-Production/Producing Occupations**

**Labor Market Information Report**

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 a significant undersupply of Pre-Production/Producing workers compared to the demand for this cluster of occupations in the Bay region and the Mid-Peninsula sub-region. The annual gap between demand and supply is about 1,000 in the region and about 445 in the Mid-Peninsula sub-region.

This report also provides student outcomes data on employment and earnings for Film Production (TOP 0612.20) programs in the region and state. It is recommended that this data be reviewed to better understand how student outcomes at City College of San Francisco (CCSF) compare to potentially similar programs at colleges in the state and region as well as to outcomes across all programs at CCSF and in the region.

# Introduction

This report profiles a cluster of Pre-Production/Producing occupations in the 12 county Bay Region and the Mid-Peninsula Sub-Region (San Francisco and San Mateo counties) for a proposed new Certificate at City College of San Francisco. Three of the four occupations in this cluster require a bachelor’s degree, however for two of these occupations, a significant percentage of those employed (about one-third) have a community college award or some postsecondary coursework. The fourth occupation does not require a bachelor’s degree.

* **Producers and Directors (SOC 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:* 18%

* **Audio and Video Equipment Technicians (SOC 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.

*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:* 44%

* **Camera Operators, Television, Video, and Motion Picture (SOC 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:* 29%

* **Film and Video Editors (SOC 27-4032)**: Edit moving images on film, video, or other media. May edit or synchronize soundtracks with images.

*Entry-Level Educational Requirement:* *Bachelor’s Degree*

*Training Requirement:* *None*

*Percentage of Community College Award Holders or Some Postsecondary Coursework:* 32%

# Occupational Demand

**Table 1. Employment Outlook for Pre-Production/Producing Occupations in Bay Region**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Occupation | 2016 Jobs | 2021 Jobs | 5-Yr Change | 5-Yr % Change | 5-year Open-ings | Annual Open-ings | 10% Hrly Wage | Median Hrly Wage |
| Producers & Directors | 4,135 | 4,615 | 480 | 12% | 2,382 | 476 | $18.88 | $28.71 |
| Audio & Video Equipment Technicians | 3,184 | 3,422 | 238 | 7% | 1,744 | 349 | $15.14 | $22.60 |
| Camera Operators, TV, Video & Motion Picture | 714 | 779 | 65 | 9% | 418 | 84 | $18.60 | $24.21 |
| Film & Video Editors | 1,357 | 1,555 | 198 | 15% | 878 | 176 | $21.30 | $29.67 |
| **Total** | **9,390** | **10,371** | **981** | **10%** | **5,421** | **1,084** | **$17.94** | **$26.43** |

*Source: EMSI 2017.4*

**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 Pre-Production/Producing Occupations in Mid-Peninsula Sub-Region**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Occupation | 2016 Jobs | 2021 Jobs | 5-Yr Change | 5-Yr % Change | 5-year Open-ings | Annual Open-ings | 10% Hrly Wage | Median Hrly Wage |
| Producers & Directors | 2,288 | 2,540 | 252 | 11% | 1,288 | 258 | $19.93 | $35.86 |
| Audio & Video Equipment Technicians | 1,079 | 1,198 | 119 | 11% | 626 | 125 | $16.89 | $23.63 |
| Camera Operators, TV, Video & Motion Picture | 318 | 343 | 25 | 8% | 179 | 36 | $18.17 | $25.07 |
| Film & Video Editors | 584 | 678 | 94 | 16% | 383 | 77 | $20.88 | $29.74 |
| **Total** | **4,269** | **4,759** | **490** | **11%** | **2,476** | **495** | **$19.16** | **$31.13** |

*Source: EMSI 2017.4***Mid-Peninsula Sub-Region** includes San Francisco and San Mateo counties

### Job Postings in Bay Region and Mid-Peninsula Sub-Region

**Table 3. Number of Job Postings by Occupation for latest 12 months (Feb 2017 – Jan 2018)**

|  |  |  |
| --- | --- | --- |
| Occupation | Bay Region | Mid-Peninsula |
| Producers (27-2012.01) | 873 | 563 |
| Audio and Video Equipment Technicians (27-4011.00) | 362 | 176 |
| Camera Operators, TV, Video and Motion Picture (27-4031.00) | 145 | 80 |
| Film and Video Editors (27-4032.00) | 116 | 74 |
| Program Directors (27-2012.03) | 33 | 16 |
| Directors-Stage, Motion Pictures, TV and Radio (27-4012.02) | 19 | 9 |
| Talent Directors (27-4012.04) | 11 | 4 |
| **Total** | **1,559** | **922** |

*Source: Burning Glass*

**Table 4. Top Job Titles for Pre-Production/Producing Occupations for latest 12 months (Feb 2017 – Jan 2018)**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Common Title | Bay Region | SC-Monterey | Common Title | Bay Region | SC-Monterey |
| Audio Visual Technician | 167 | 84 | Associate Producer - Golden | 21 | 0 |
| Video Editor | 129 | 85 | Executive Producer | 21 | 16 |
| Producer | 104 | 77 | News Producer | 21 | 13 |
| Associate Producer | 58 | 46 | Senior Producer | 18 | 12 |
| Video Producer | 39 | 30 | Video Specialist | 17 | 12 |
| Videographer | 39 | 17 | Media Manager | 16 | 6 |
| Director of Event Technology | 27 | 19 | Creative Producer | 15 | 8 |

*Source: Burning Glass*

# Industry Concentration

**Table 5. Industries hiring Pre-Production/Producing Workers in Bay Region**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Industry – 4 Digit NAICS (No. American Industry Classification) Codes** | **Jobs in Industry (2016)** | **Jobs in Industry (2021)** | **% Change (2016-21)** | **% in Industry (2016)** |
| Motion Picture and Video Industries (5121) | 3,273 | 3,713 | 13% | 35.3% |
| Radio and Television Broadcasting (5151) | 850 | 840 | (1%) | 8.8% |
| Other Information Services (5191) | 752 | 988 | 31% | 8.1% |
| Cable and Other Subscription Programming (5152) | 339 | 314 | (7%) | 3.5% |
| Independent Artists, Writers, and Performers (7115) | 325 | 304 | (6%) | 3.4% |
| Commercial & Industrial Machinery & Equipment Rental & Leasing (5324) | 322 | 369 | 15% | 3.4% |
| Advertising, Public Relations, and Related Services (5418) | 300 | 325 | 8% | 3.2% |
| Performing Arts Companies (7111) | 275 | 296 | 8% | 3.0% |
| Colleges, Universities, and Professional Schools (6113) | 242 | 277 | 14% | 2.6% |
| Education and Hospitals (State Government) (9026) | 187 | 205 | 10% | 2.0% |
| Computer Systems Design and Related Services (5415) | 169 | 204 | 21% | 1.8% |
| Education and Hospitals (Local Government) (9036) | 165 | 166 | 1% | 1.8% |
| Promoters of Performing Arts, Sports, and Similar Events (7113) | 155 | 168 | 8% | 1.6% |
| Religious Organizations (8131) | 150 | 159 | 6% | 1.6% |
| Local Government, Excluding Education and Hospitals (9039) | 106 | 115 | 8% | 1.1% |
| Sound Recording Industries (5122) | 106 | 100 | (6%) | 1.1% |

*Source: EMSI 2017.4*

**Table 6. Top Employers Posting Jobs in Bay Region and Mid-Peninsula for latest 12 months (Feb 2017 – Jan 2018)**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Employer** | **Bay** | **Mid-Peninsula** | **Employer** | **Bay** | **Mid-Peninsula** |
| Psav Presentation Services | 98 | 54 | Gap Inc. | 12 | 12 |
| Apple Inc. | 45 | 0 | Disney | 11 | 10 |
| Facebook | 26 | 26 | Stanford University | 11 | 0 |
| Psav | 22 | 13 | Hearst Television | 10 | 0 |
| NBC | 18 | 9 | Amazon.com | 10 | 5 |
| CBS Broadcasting | 16 | 16 | University of California | 10 | 0 |
| Popsugar Inc | 16 | 16 |  |  |  |

*Source: Burning Glass*

# Educational Supply

On the supply side, for Film Production (TOP 0612.20), there are six community colleges in the Bay region issuing 32 awards annually and three other educational postsecondary institutes issuing 44 awards annually, for a total of 76 awards issued annually in the region. Three of these colleges are in the Mid-Peninsula sub-region, issuing 49 awards annually on these TOP and CIP codes.

**Table 7. Colleges with Film Production (TOP 0612.20) or Cinematography and Film/Video Production (CIP 50.0602) Programs in the Bay Region and Mid-Peninsula Sub-Region**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| College | Sub-Region | CC Headcount | | No of Transfer Students | Associate Degrees | Certificates or Other Credit Awards | Total Awards |
| Berkeley City | East Bay | 45 | | 2 | 0 | 1 | 1 |
| Contra Costa | East Bay | 58 | | 2 | 0 | 3 | 3 |
| DeAnza | Silicon Valley | 246 | | 20 | 11 | 0 | 11 |
| Gavilan | Silicon Valley | 12 | | 1 | 0 | 0 | 0 |
| Marin | North Bay | 8 | | 0 | 0 | 0 | 0 |
| Monterey | SC-Monterey | 17 | | 0 | 0 | 0 | 0 |
| San Francisco | Mid-Peninsula | 394 | | 17 | 6 | 0 | 6 |
| San Mateo | Mid-Peninsula | 30 | | 0 | 0 | 0 | 0 |
| Santa Rosa | North Bay | on another TOP | | 0 | 5 | 5 | 10 |
| Solano | North Bay | 10 | | 0 | 0 | 0 | 0 |
| West Valley | North Bay | 13 | | 0 | 1 | 0 | 1 |
| Pacific Union College | North Bay | n/a | | n/a | 1 | 0 | 1 |
| Academy of Art University | Mid-Peninsula | n/a | | n/a | 25 | 0 | 25 |
| SF School of Digital Filmmaking | Mid-Peninsula | n/a | | n/a | 0 | 18 | 18 |
| **Total Bay Region** | | | **831** | **44** | **49** | **27** | **76** |
| **Total Mid-Peninsula Sub-Region** | | | **424** | **17** | **31** | **18** | **49** |

# *Sources: IPEDS, Data Mart and Launchboard*

NOTE: For Community Colleges, the annual average for Associate Degrees and Certificates is 2014-17. There appears to be no programs at Other Educational Postsecondary Institutes based on a crosswalk of TOP to CIP codes. Headcount is for 2015-16. Transfer students is for 2014-15. For the other educational postsecondary institutes, the annual average for awards is 2013-16.

# Gap Analysis

The labor market gap is significant in the Bay region for this cluster of occupation with total annual openings of 1,084 and annual supply of 76 awards. This represents an annual undersupply of 1,008 students. In the Mid-Peninsula sub-region, there is also a gap with total annual openings of 495 and annual supply of 49 awards for an annual gap of 446.

# Student Outcomes

Student Outcomes data from Launchboard is available for students who took courses on TOP 06122.00 – Film Production in the Bay Region. City College of San Francisco ranks as the top college in the region for all four employment outcome metrics for their students.

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

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **2014-15** | **Bay Region (All Programs)** | **San Francisco (All Programs)** | **State (0612.20)** | **Bay Region (0612.20)** | **San Francisco (0612.20)** | **Top Colleges on**  **TOP 0612.20 Film Production in Bay** | |
| % Employed Four Quarters After Exit | 68% | 66% | 62% | 56% | 62% | San Francisco | 62% |
| Median Earnings Two Quarters After Exit | $12,640 | $9,570 | $8,130 | $6,055 | $7,330 | San Francisco | $7,330 |
| Median % Change in Earnings | 37% | 41% | 16% | 23% | 30% | San Francisco | 30% |
| % of Students Earning a Living Wage | 51% | 44% | 49% | 33% | 39% | San Francisco | 39% |

*Source: Launchboard*

# Skills, Certifications and Education

**Table 9. Top Skills for Pre-Production/Producing Occupations in Bay Region (Feb 2017 – Jan 2018)**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Skill** | **Postings** | **Skill** | **Postings** | **Skill** | **Postings** |
| Scheduling | 393 | Dynamic Host Configuration Protocol (DHCP) | 99 | Customer Contact | 76 |
| Project Management | 358 | Microsoft Powerpoint | 97 | Animation | 75 |
| Budgeting | 315 | Equipment Operation | 94 | Post Production | 75 |
| Adobe Photoshop | 273 | Microsoft Operating Systems | 94 | Facebook | 73 |
| Video Production | 270 | Contract Management | 93 | Multimedia | 70 |
| Microsoft Excel | 260 | IP Address Setup | 93 | Content Management | 67 |
| Microsoft Office | 225 | Universal Serial Bus (USB) | 93 | Media Production | 65 |
| Video Editing | 193 | Switches | 91 | Staff Management | 65 |
| Broadcast | 182 | Journalism | 86 | Digital Video | 64 |
| Adobe Aftereffects | 172 | Network Printers | 86 | Account Management | 62 |
| Photography | 170 | Supervisory Skills | 85 | Software Development | 62 |
| Social Media | 145 | Customer Service | 83 | Videography | 61 |
| Adobe Premiere | 143 | Final Cut Pro | 82 | E-Commerce | 58 |
| Adobe Illustrator | 139 | Music | 81 | Web Development | 56 |
| Adobe Indesign | 129 | Software Issue Resolution | 80 | Game Development | 55 |
| Adobe Acrobat | 120 | Upselling Products & Services | 80 | Event Planning | 54 |
| Adobe Creative Suite | 120 | Merchandising | 79 | Color Editing | 50 |

*Source: Burning Glass*

Note: 96% of records have been excluded because they do not include a certification. As a result, the table was not included in this report.

**Table 10. Education Requirements for Pre-Production/Producing Occupations in Bay Region**

Note: 47% of records have been excluded because they do not include a degree level. As a result, the table below may not be representative of the full sample.

|  |  |  |
| --- | --- | --- |
| **Education (minimum advertised)** | **Latest 12 Mos. Postings** | **% of Total Indicating Ed. Level** |
| High school or vocational training | 169 | 21% |
| Associate Degree | 30 | 4% |
| Bachelor’s Degree or Higher | 624 | 76% |

*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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