

Film & Animation Occupations Labor Market Information Report Chabot College

Prepared by the San Francisco Bay Center of Excellence
for Labor Market Research
March 2019

Recommendation

Based on all available data, there appears to be an undersupply of Film & Animation 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 1,283 students in the Bay region and 256 students in the East Bay Sub-Region.

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

Introduction

This report profiles Film & Animation Occupations in the 12 county Bay region and in the East Bay sub-region for a proposed new program at Chabot College.

- **Multimedia Artists and Animators (SOC 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%
- **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: 27%
- **Film and Video Editors (SOC 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: 27%
- **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%

Occupational Demand

Table 1. Employment Outlook for Film & Animation Occupations in Bay Region

Occupation	2017 Jobs	2022 Jobs	5-Yr Change	5-Yr % Change	5-Yr Openings	Average Annual Openings	10% Hourly Wage	Median Hourly Wage
Multimedia Artists and Animators	4,730	5,028	298	6%	2,247	449	\$13.65	\$38.08
Camera Operators, Television, Video, and Motion Picture	731	767	35	5%	391	78	\$15.50	\$22.18
Film and Video Editors	1,599	1,758	159	10%	960	192	\$20.00	\$29.51
Producers and Directors	5,395	5,891	496	9%	2,979	596	\$20.28	\$33.77
Total	12,455	13,445	990	8%	6,577	1,315	\$17.45	\$34.18

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 Film & Animation Occupations in East Bay Sub-Region

Occupation	2017 Jobs	2022 Jobs	5-Yr Change	5-Yr % Change	5-Yr Openings	Average Annual Openings	10% Hourly Wage	Median Hourly Wage
Multimedia Artists and Animators	907	946	39	4%	404	81	\$12.21	\$31.02
Camera Operators, Television, Video, and Motion Picture	169	189	20	12%	103	21	\$16.63	\$20.92
Film and Video Editors	389	459	70	18%	266	53	\$21.43	\$28.40
Producers and Directors	864	990	126	15%	527	105	\$15.20	\$25.27
TOTAL	2,328	2,584	256	11%	1,301	260	\$15.18	\$27.72

Source: EMSI 2019.1

East Bay Sub-Region includes Alameda and 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 (March 2018 - Feb 2019)

Occupation	Bay Region	East Bay
Producers (27-2012.01)	1,379	139
Multimedia Artists and Animators (27-1014.00)	949	117
Camera Operators, Television, Video, and Motion Picture (27-4031.00)	280	60
Film and Video Editors (27-4032.00)	199	25
Directors- Stage, Motion Pictures, Television, and Radio (27-2012.02)	63	15
Talent Directors (27-2012.04)	26	1
Program Directors (27-2012.03)	22	4
Technical Directors/Managers (27-2012.05)	2	0
Total	2,920	361

Source: Burning Glass

Table 4. Top Job Titles for Film & Animation Occupations for latest 12 months (March 2018 - Feb 2019)

Common Title	Bay	East Bay	Common Title	Bay	East Bay
Interaction Designer	479	56	Executive Producer	36	3
Producer	255	14	News Producer	36	8
Video Editor	229	31	Media Manager	30	3
Videographer	181	44	Technical Producer	27	8
Animator	108	11	Camera Operator	20	9
Graphic Designer	94	9	Localization Producer	18	0
Associate Producer	92	9	Web Producer	18	1
Video Producer	89	15	3D Modeler	16	1
Content Producer	77	3	Photography Producer	16	0
Senior Producer	65	3	3D Designer	14	3
Interactive Designer	58	8	Freelance Graphic Designer	11	5
Creative Producer	45	2	Integrated Producer	11	0
Digital Producer	45	4	Cinematographer	10	1
Visual Effects Artist	42	1	Senior Creative Producer	10	0

Source: Burning Glass

Industry Concentration

Table 5. Industries hiring Film & Animation 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)
Motion Picture and Video Production (512110)	2,752	2,767	7%	22.0%
Internet Publishing and Broadcasting and Web Search Portals (519130)	1,546	1,629	37%	13.0%
Television Broadcasting (515120)	795	808	4%	6.4%
Software Publishers (511210)	749	773	18%	6.2%
Teleproduction and Other Postproduction Services (512191)	691	683	3%	5.4%
Custom Computer Programming Services (541511)	594	603	10%	4.8%
Independent Artists, Writers, and Performers (711510)	488	466	(12%)	3.7%
Cable and Other Subscription Programming (515210)	401	426	(7%)	3.4%
Computer Systems Design Services (541512)	343	338	5%	2.7%
Advertising Agencies (541810)	293	292	0%	2.3%
Theater Companies and Dinner Theaters (711110)	200	192	2%	1.5%
Radio Stations (515112)	163	162	(11%)	1.3%
Graphic Design Services (541430)	156	148	(14%)	1.2%
Public Relations Agencies (541820)	137	136	4%	1.1%
Data Processing, Hosting, and Related Services (518210)	117	125	27%	1.0%
Colleges, Universities, and Professional Schools (State Government) (902612)	122	124	(1%)	1.0%
Interior Design Services (541410)	122	122	7%	1.0%

Source: EMSI 2019.1

Table 6. Top Employers Posting Film & Animation Occupations in Bay Region and East Bay Sub-Region (March 2018 - Feb 2019)

Employer	Bay	Employer	Bay	Employer	East Bay
Google Inc.	64	Salesforce	11	Facebook	10
Apple Inc.	51	Cryptic Studios Inc	10	General Electric Company	9
Facebook	44	Entercom Communications	10	Mediavision	9
Gap Inc.	34	Ford Motor Company	10	Logitech	7
NBC	28	Fox	10	Pro Pipe	7
CBS Broadcasting	21	Nexstar Broadcasting	10	Uc San Diego	7
Mediavision	21	Accenture	9	Fox	6
Disney	18	Cisco Systems Incorporated	9	Fox News Network	4
Sony Electronics Inc	16	Ideo	9	Igg Corporation	4

2K Games	15	Kendo	9	Lululemon	4
Stanford University	14	Kqed	9	Pandora Media	4
Electronic Arts Inc	12	Machine Zone	9	Flip2Media	3
General Electric Co	12	Milestone Technologies Inc	9	Ideahelix	3
Lululemon	12	Nexstar Broadcasting Group	9	Kids Overcoming	3
Activision	11	Telltale Games	9	Lvl Medical	3
Critical Mass	11	Akqa Incorporated	8	Pixar	3

Source: Burning Glass

Educational Supply

There are 6 community colleges in the Bay Region issuing 32 awards on average annually (last 3 years) on TOP 0612.20 - Film Production. There are two colleges in the East Bay Sub-Region issuing 4 awards on average annually (last 3 years) on this TOP code.

Table 7. Awards on TOP 0612.20 - Film Production in the Bay Region

College	Sub-Region	Headcount	Associates	Certificates	Total
Berkeley City	East Bay	58		1	1
Contra Costa	East Bay	63		3	3
Deanza	Silicon Valley	249	11		11
Diablo	East Bay	126			
Gavilan	Santa Cruz - Monterey	15			
San Francisco	Mid-Peninsula	352	6	0	6
Santa Rosa	North Bay	n/a	5	5	10
West Valley	Silicon Valley	22	1		1
Total Bay Region		885	23	9	32
Total East Bay Sub-Region		247	0	4	4

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 labor market gap in the Bay region with 1,315 annual openings for the Film & Animation occupational cluster and 32 annual (3-year average) awards for an annual undersupply of 1,283 students. In the East Bay Sub-Region, there is also a gap with 260 annual openings and 4 annual (3-year average) awards for an annual undersupply of 256 students.

Student Outcomes

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

2015-16	Bay (All CTE Programs)	Chabot College (All CTE Programs)	State (0612.20)	Bay (0612.20)	East Bay (0612.20)	Chabot College (0612.20)
% Employed Four Quarters After Exit	74%	74%	68%	63%	n/a	n/a
Median Quarterly Earnings Two Quarters After Exit	\$10,550	\$9,425	\$9,555	\$6,796	n/a	n/a
Median % Change in Earnings	46%	71%	19%	32%	n/a	n/a
% of Students Earning a Living Wage	63%	60%	54%	39%	n/a	n/a

Source: Launchboard Pipeline (version available on 3/8/19)

Skills and Education

Table 9. Top Skills for Film & Animation Occupations in Bay Region (March 2018 - Feb 2019)

Skill	Postings	Skill	Postings	Skill	Postings
Adobe Photoshop	870	Interaction Design	284	Process Design	159
Project Management	592	UX Wireframes	274	E-Commerce	158
Video Production	520	Videography	253	User Research	154
Adobe Aftereffects	516	Prototyping	246	Content Management	153
Budgeting	514	Broadcast Industry Knowledge	245	Final Cut Pro	146
Adobe Indesign	450	Visual Design	245	Journalism	140
Scheduling	449	User Interface (UI) Design	234	Youtube	140
Adobe Acrobat	442	Quality Assurance and Control	229	Maya	137
Social Media	438	Motion Graphics	218	Game Development	135
Adobe Creative Suite	426	Music	195	Multimedia	130
Video Editing	399	Facebook	188	Project Planning and Development Skills	129
Adobe Illustrator	396	Photography	170	Product Development	121
Adobe Premiere	362	JavaScript	169	Post Production	119
Animation	326	Product Management	169	Stakeholder Management	119
Graphic Design	293	Customer Contact	168	Customer Service	117

Source: Burning Glass

Table 10. Education Requirements for Film & Animation Occupations in Bay Region

Note: 54% 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	84 (6%)
Associate Degree	31 (2%)
Bachelor's Degree or Higher	1,242 (92%)

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 CCCCCO 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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