



Animation Occupations Labor Market Information Report De Anza 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 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 626 students in the Bay region and 219 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 De Anza 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 at De Anza 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%

Occupational Demand

Table 1. Employment Outlook for Animation 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
Total	5,227	5,632	405	8%	3,364	673	\$28.71	\$40.79

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 Animation Occupations in Silicon Valley 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	1,606	1,832	226	14%	1,151	230	\$ 31.49	\$ 41.94
Total	1,606	1,832	226	14%	1,151	230	\$31.49	\$41.94

Source: EMSI 2020.4

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 (Feb 2020 - Jan 2021)**

Occupation	Bay Region	Silicon Valley
Multimedia Artists and Animators	576	220

Source: Burning Glass

Table 4a. Top Job Titles for Animation Occupations for latest 12 months (Feb 2020 - Jan 2021) Bay Region

Title	Bay	Title	Bay
Interaction Designer	52	Senior 3D Designer	9
Motion Graphic Designer	26	Master Interaction Designer	9
Senior Interaction Designer	20	Lead Interaction Designer	9
Animator	18	3D Artist And Modeler	9
D Artist And Modeler	15	Senior 3D Designer Museum Exhibition Designer	8
Interactive Designer	13	2D Spine Animator	8
Vfx Artist	12	Senior Interactive Designer	7
Lead Animator	10	Digital Content Producer	7
3D Animator	10	3D Modeler	7

Source: Burning Glass

Table 4b. Top Job Titles for Animation Occupations for latest 12 months (Feb 2020 - Jan 2021) Silicon Valley Sub-Region

Title	Silicon Valley	Title	Silicon Valley
Interaction Designer	37	3D Modeler	5
Senior Interaction Designer	16	2D Spine Animator	5
D Artist And Modeler	15	Ux Interaction Designer For Enterprise Networking	4
3D Artist And Modeler	8	Senior Interactive Designer	4
Motion Graphic Designer	7	Multimedia/Camera Imaging Asic Design Engineer	4
Ui/Ux Interaction Designer	5	Senior 3D Designer	3
Principal Interaction Designer	5	Lead Animator	3
Lead Interaction Designer	5	Conversational Interaction Designer	3
Digital Artist - Modeler	5	3D Game Modeler Texture	3

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 (2019)	Jobs in Industry (2024)	% Change (2019-24)	% Occupation Group in Industry (2019)
Software Publishers	1,240	1,479	19%	25%
Internet Publishing and Broadcasting and Web Search Portals	586	689	18%	12%
Motion Picture and Video Production	519	568	9%	10%
Custom Computer Programming Services	397	446	12%	8%
Independent Artists, Writers, and Performers	245	256	4%	5%
Computer Systems Design Services	220	234	6%	4%
Other Spectator Sports	201	178	-12%	4%
Graphic Design Services	184	166	-10%	3%
Interior Design Services	155	162	4%	3%
Teleproduction and Other Postproduction Services	112	109	-3%	2%

Source: EMSI 2020.4

Table 6. Top Employers Posting Animation Occupations in Bay Region and Silicon Valley Sub-Region (Feb 2020 - Jan 2021)

Employer	Bay	Employer	Silicon Valley
Activision	19	Intuitive Surgical Incorporated	11
Exploratorium	16	Apple Inc.	9
U.S. Bancorp	11	Google Inc.	7
Intuitive Surgical Incorporated	11	Samsung America, Inc.	6
Ubisoft	9	Crazy Maple Studio, Inc	5
Striking Distance Studios	9	Russell Tobin & Associates	4
Disney	9	Qualcomm	4
Apple Inc.	9	Intuitive	4
Accenture	9	Exploratorium	4
Google Inc.	8	Accenture	4
Crazy Maple Studio, Inc	8	Sage Intacct	3
Electronic Arts Incorporated	7	Osi Engineering	3
Curology	7	Nickelodeon Animation Studios	3
Amazon	7	Intelligent Incorporated	3

Source: Burning Glass

Educational Supply

There are seven (7) community colleges in the Bay Region issuing 47 awards on average annually (last 3 years ending 2018-19) on TOP 0614.40 - Animation. In the Silicon Valley Sub-Region, there are two (2) community colleges that issued 11 awards on average annually (last 3 years) on this TOP code.

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

College	Subregion	Associate	Certificate Low	Total
Berkeley City	East Bay	6	8	14

College	Subregion	Associate	Certificate Low	Total
De Anza	Silicon Valley	7	1	8
Diablo Valley	East Bay	0	2	2
Ohlone	East Bay	0	5	5
San Francisco	Mid-Peninsula	0	1	1
Santa Rosa	North Bay	6	8	14
West Valley	Silicon Valley	2	1	3
Total		21	26	47

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 673 annual openings for the Animation occupational cluster and 47 annual (3-year average) awards for an annual undersupply of 626 students. In the Silicon Valley Sub-Region, there is also a gap with 230 annual openings and 11 annual (3-year average) awards for an annual undersupply of 219 students.

Student Outcomes

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

Metric Outcomes	Bay All CTE Program	De Anza All CTE Program	State 0614.40	Bay 0614.40	Silicon Valley 0614.40	De Anza 0614.40
Students with a Job Closely Related to their Field of Study*	75%	74%	49%	53%	NA	NA
Median Annual Earnings for SWP Exiting Students	\$45,864	\$43,724	\$22,128	\$27,300	\$24,204	\$27,324
Median Change in Earnings for SWP Exiting Students	31%	34%	42%	29%	159%	NA
Exiting Students Who Attained the Living Wage	53%	46%	28%	20%	NA	NA

Source: Launchboard Strong Workforce Program from version 2018-19).* Data from version 2017-18.

Skills and Education

Table 9. Top Skills for Animation Occupations in Bay Region (Feb 2020 - Jan 2021)

Skill	Posting	Skill	Posting
Animation	205	Motion Graphics	64
Adobe Photoshop	190	Process Design	62
Maya	175	Python	58
Interaction Design	135	Art Direction	57
Prototyping	101	Motion Capture	55
Adobe Indesign	97	User Interface (UI) Design	54
Adobe Illustrator	96	3D Studio Max	52
Visual Design	94	User Research	51
Adobe Acrobat	92	Product Design	48
Adobe Aftereffects	92	Human Computer Interaction	46
Adobe Creative Suite	92	Level design	46
Graphic Design	84	Typesetting	43

Skill	Posting	Skill	Posting
UX Wireframes	83	Budgeting	39
3D Modeling / Design	81	Product Development	38

Source: Burning Glass

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	3	1%
Associate's degree	8	3%
Bachelor's degree	248	91%
Master's degree	14	5%

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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