Graphic Design Occupations

Labor Market Analysis: San Diego County

January 2021

Summary

- 🔴 Do not Proceed
- ⚪ Proceed with Caution
- ⚪ Proceed

PROCEED WITH NEW PROGRAM?

SUPPLY GAP?

AT OR ABOVE THE LIVING WAGE

- ☑ Bachelor's Degree+
- ☐ Associate Degree
- ☐ Some College or Certificate
- ☐ High School Diploma or Equivalent
- ☐ Less than a HS Diploma
- ☐ Apprenticeship

EXPECTED EDUCATION FOR MAJORITY OF OCCUPATIONS ANALYZED

COE SUPPORT FOR PROGRAM MODIFICATION?

- ☑ High
- ☐ Medium
- ☐ Low

NUMBER OF INSTITUTIONS THAT PROVIDE TRAINING

- ☐ High
- ☑ Medium
- ☐ Low

NUMBER OF ANNUAL JOB OPENINGS

The brief provides labor market information about *Graphic Design Occupations* to assist the San Diego and Imperial Counties Community Colleges with program development and strategic planning. *Graphic Design Occupations* include "Fine Artists, Including Painters, Sculptors, and Illustrators" and "Graphic Designers." According to available labor market information, *Graphic Design Occupations* in San Diego County have a labor market demand of 422 annual job openings (while average demand for a single occupation in San Diego County is 277 annual job openings), and 16 educational institutions in San Diego County supply 460 awards for these occupations, suggesting that there is an oversupply in the labor market. Entry-level and median wages are above the living wage for "Graphic Designers" and below the living wage for "Fine Artists, Including Painters, Sculptors, and Illustrators." This brief recommends not proceeding with developing a **new** program because 1) an oversupply exists for these positions and 2) the percentage of students who obtained a job related to their field of study and earned a living wage after completing related programs is typically **below** the state average for students who complete Career Education programs in general. Colleges should also note that employers typically require a bachelor's degree as the minimum educational requirement for these occupations.

Introduction

This report provides labor market information in San Diego County for the following occupational codes in the Standard Occupational Classification (SOC)[1] system:

- **Fine Artists, Including Painters, Sculptors, and Illustrators** (SOC 27-1013): Create original artwork using any of a wide variety of media and techniques.
- **Graphic Designers** (SOC 27-1024): Create original artwork using any of a wide variety of media and techniques.

For the purpose of this report, these occupations are referred to as *Graphic Design Occupations*.

Projected Occupational Demand

Between 2019 and 2024, *Graphic Design Occupations* are projected to increase by 108 net jobs or three percent (Exhibit 1a). During this period, employers in San Diego County are projected to hire 422 workers annually to fill new jobs and backfill jobs due to attrition caused by turnover and retirement, for example.

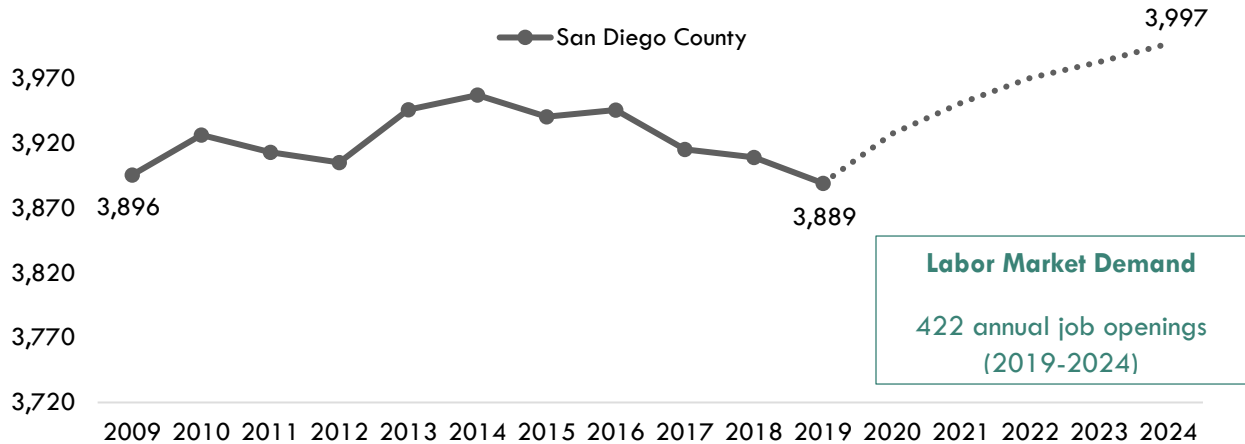**Exhibit 1a: Number of Jobs for *Graphic Design Occupations* (2009-2024)[2]**

Exhibit 1b breaks down the projected number of annual job openings by occupation more specifically: *Graphic Designers* are projected to have the most labor market demand between 2019 and 2024, with 353 annual job openings.

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[1] The Standard Occupational Classification (SOC) system is used by federal statistical agencies to classify workers into occupational categories for the purpose of collecting, calculating or disseminating data. bls.gov/soc.
[2] EMSI 2020.04; QCEW, Non-QCEW, Self-Employed.

Exhibit 1b: Number of Jobs for *Graphic Design Occupations* in San Diego County (2019-2024)[3]

Occupational Title	2019 Jobs	2024 Jobs	2019 - 2024 Net Jobs Change	2019-2024 % Net Jobs Change	Annual Job Openings (Demand)
Graphic Designers	3,320	3,404	84	3%	353
Fine Artists, Including Painters, Sculptors, and Illustrators	569	593	24	4%	69
Total	3,889	3,997	108	3%	422

Earnings

Entry-level hourly earnings for *Graphic Design Occupations* range from $4.63 to $16.95 (Exhibit 2a).

Exhibit 2a: Hourly Earnings for *Graphic Design Occupations* in San Diego County[4]

| Occupational Title	Entry-Level Hourly Earnings (25th Percentile)	Median Hourly Earnings	Experienced Hourly Earnings (75th Percentile)
Graphic Designers	$16.95	$24.33	$34.35
Fine Artists, Including Painters, Sculptors, and Illustrators	$4.63	$11.82	$23.14

On average, entry-level hourly earnings for *Graphic Design Occupations* are $10.79; this is less than the living wage for a single adult in San Diego County, which is $15.99 per hour (Exhibit 2b).[5]

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[3] EMSI 2020.04; QCEW, Non-QCEW, Self-Employed
[4] EMSI 2020.04; QCEW, Non-QCEW, Self-Employed
[5] "California Family Needs Calculator (formerly the Self-Sufficiency Standard)," Insight: Center for Community Economic Development, last updated 2018. insightcced.org/2018-self-sufficiency-standard.

Exhibit 2b: Average Hourly Earnings[6] for *Graphic Design Occupations* in San Diego County[7]
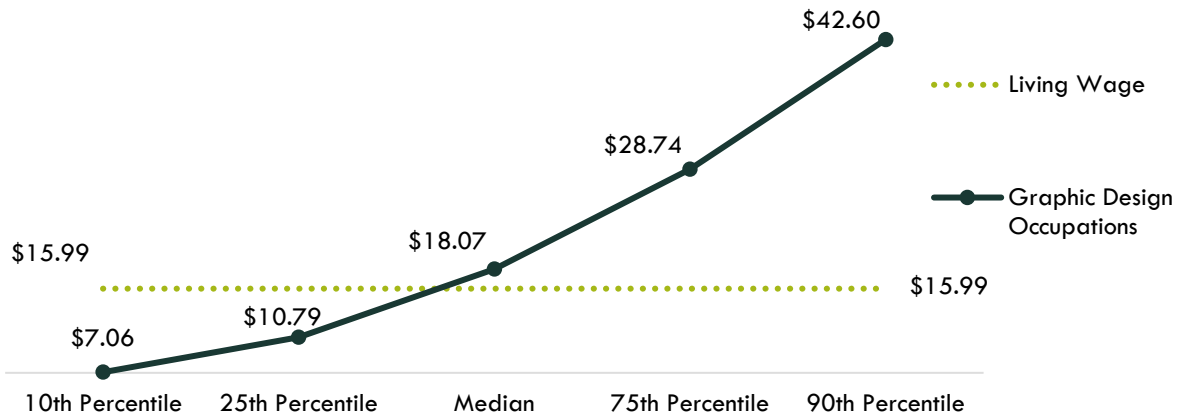
Educational Supply

Educational supply for an occupation can be estimated by analyzing the number of awards in related Taxonomy of Programs (TOP) or Classification of Instructional Programs (CIP) codes.[8] There are six TOP codes and nine CIP codes related to *Graphic Design Occupations* (Exhibit 3).

Exhibit 3: Related TOP and CIP Codes for *Graphic Design Occupations*

Graphic Design Occupations
TOP 0509.10: Advertising
TOP 0614.00: Digital Media
TOP 0614.10: Multimedia
TOP 0614.30: Website Design and Development
TOP 0614.60: Computer Graphics and Digital Imagery
TOP 1030.00: Graphic Art and Design
CIP 09.0702: Digital Communication and Media/Multimedia
CIP 09.0903: Advertising
CIP 10.0301: Graphic Communications, General
CIP 10.0303: Prepress/Desktop Publishing and Digital Imaging Design
CIP 10.0304: Animation, Interactive Technology, Video Graphics and Special Effects

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[6] 10th and 25th percentiles could be considered entry-level wages, and 75th and 90th percentiles could be considered experienced wages for individuals who may have been in the occupation longer, received more training than others, etc.
[7] EMSI 2020.04; QCEW, Non-QCEW, Self-Employed.
[8] TOP data comes from the California Community Colleges Chancellor's Office MIS Data Mart (datamart.cccco.edu) and CIP data comes from the Integrated Postsecondary Education Data System (nces.ed.gov/ipeds/use-the-data).

Graphic Design Occupations
CIP 11.0801: Web Page, Digital/Multimedia and Information Resources Design
CIP 11.0803: Computer Graphics
CIP 11.0899: Computer Software and Media Applications, Other
CIP 50.0102: Digital Arts
CIP 50.0401: Design and Visual Communications, General
CIP 50.0409: Graphic Design

According to TOP data, nine community colleges supply the region with awards for this occupation: San Cuyamaca College, Grossmont College, MiraCosta College, Palomar College, San Diego City College, San Diego Continuing Education, San Diego Mesa College, San Diego Miramar College, and Southwestern College. According to CIP data, seven non-community colleges supply the region with awards, Argosy University-The Art Institute of California-San Diego, California Institute of Arts & Technology, Coleman University, National University, Newschool of Architecture and Design, Platt College-San Diego, and Point Loma Nazarene University (Exhibit 4).

Exhibit 4: Number of Awards (Certificates and Degrees) Conferred by Postsecondary Institutions (Program Year 2014-15 through PY2018-19 Average)

TOP6 or CIP	TOP6 or CIP Title	3-Yr Annual Average CC Awards (PY16-17 to PY18-19)	Other Educational Institutions 3-Yr Annual Average Awards (PY14-15 to PY16-17)	3-Yr Total Average Supply (PY14-15 to PY18-19)
0509.10	Advertising	**11**	**0**	**11**
	• Palomar	11	0	
061400	Digital Media	**33**	**0**	**33**
	• MiraCosta	12	0	
	• Palomar	16	0	
	• San Diego City	5	0	
061410	Multimedia	**47**	**0**	**47**
	• Grossmont	1	0	
	• MiraCosta	24	0	
	• Palomar	3	0	
	• San Diego City	0	0	
	• San Diego Mesa	19	0	

TOP6 or CIP	TOP6 or CIP Title	3-Yr Annual Average CC Awards (PY16-17 to PY18-19)	Other Educational Institutions 3-Yr Annual Average Awards (PY14-15 to PY16-17)	3-Yr Total Average Supply (PY14-15 to PY18-19)
061420	Electronic Game Design	**5**	**0**	**5**
	• Palomar	1	0	
	• San Diego Mesa	0	0	
	• Southwestern	4	0	
061430	Website Design and Development	**121**	**0**	**121**
	• Cuyamaca	5	0	
	• MiraCosta	2	0	
	• San Diego Cont Ed	83	0	
	• San Diego Mesa	20	0	
	• Southwestern	11	0	
061460	Computer Graphics and Digital Imagery	**5**	**0**	**5**
	• Palomar	3	0	
	• San Diego Mesa	1	0	
	• San Diego Miramar	1	0	
103000	Graphic Art and Design	**66**	**0**	**66**
	• Cuyamaca	12	0	
	• Palomar	9	0	
	• San Diego City	36	0	
	• Southwestern	9	0	
09.0702	Digital Communication and Media/Multimedia	**0**	**13**	**13**
	• National University	0	8	
	• Platt College-San Diego	0	5	
10.0304	Animation, Interactive Technology, Video Graphics and Special Effects	**0**	**1**	**1**
	• Platt College-San Diego	0	1	

TOP6 or CIP	TOP6 or CIP Title	3-Yr Annual Average CC Awards (PY16-17 to PY18-19)	Other Educational Institutions 3-Yr Annual Average Awards (PY14-15 to PY16-17)	3-Yr Total Average Supply (PY14-15 to PY18-19)
11.0801	Web Page, Digital/Multimedia and Information Resources Design	**0**	**38**	**38**
	• Argosy University-The Art Institute of California-San Diego	0	36	
	• California Institute of Arts & Technology	0	0	
	• Coleman University	0	2	
11.0803	Computer Graphics	**0**	**1**	**1**
	• Coleman University	0	1	
11.0899	Computer Software and Media Applications, Other	**0**	**20**	**20**
	• Coleman University	0	20	
	• Platt College-San Diego	0	0	
50.0409	Graphic Design	**0**	**99**	**99**
	• Argosy University-The Art Institute of California-San Diego	0	20	
	• California Institute of Arts & Technology	0	0	
	• Newschool of Architecture and Design	0	1	
	• Platt College-San Diego	0	63	
	• Point Loma Nazarene University	0	15	
			Total	**460**

Demand vs. Supply

Comparing labor demand (annual openings) with labor supply[9] suggests that there is an oversupply for these occupations in San Diego County, with 421 annual openings and 460 awards. Comparatively, there are 4,436 annual openings in California and 2,511 awards, suggesting that there is a supply gap across the state[10] (Exhibit 5).

Exhibit 5: Labor Demand (Annual Openings) Compared with Labor Supply (Average Annual Awards)

	Demand (Annual Openings)	Supply (Total Annual Average Supply)	Supply Gap or Oversupply
San Diego	421	460	**39**
California	5,599	1,977	**3,622**

Please note: This is a basic analysis of supply and demand of labor. The data does not include workers currently in the labor force who could fill these positions or workers who are not captured by publicly available data. This data should be used to discuss the potential gaps or oversupply of workers; however, it should not be the only basis for determining whether or not a program should be developed.

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[9] Labor supply can be found from two different sources: EMSI or the California Community Colleges Chancellor's Office MIS Data Mart. EMSI uses CIP codes while MIS uses TOP codes. Different coding systems result in differences in the supply numbers.
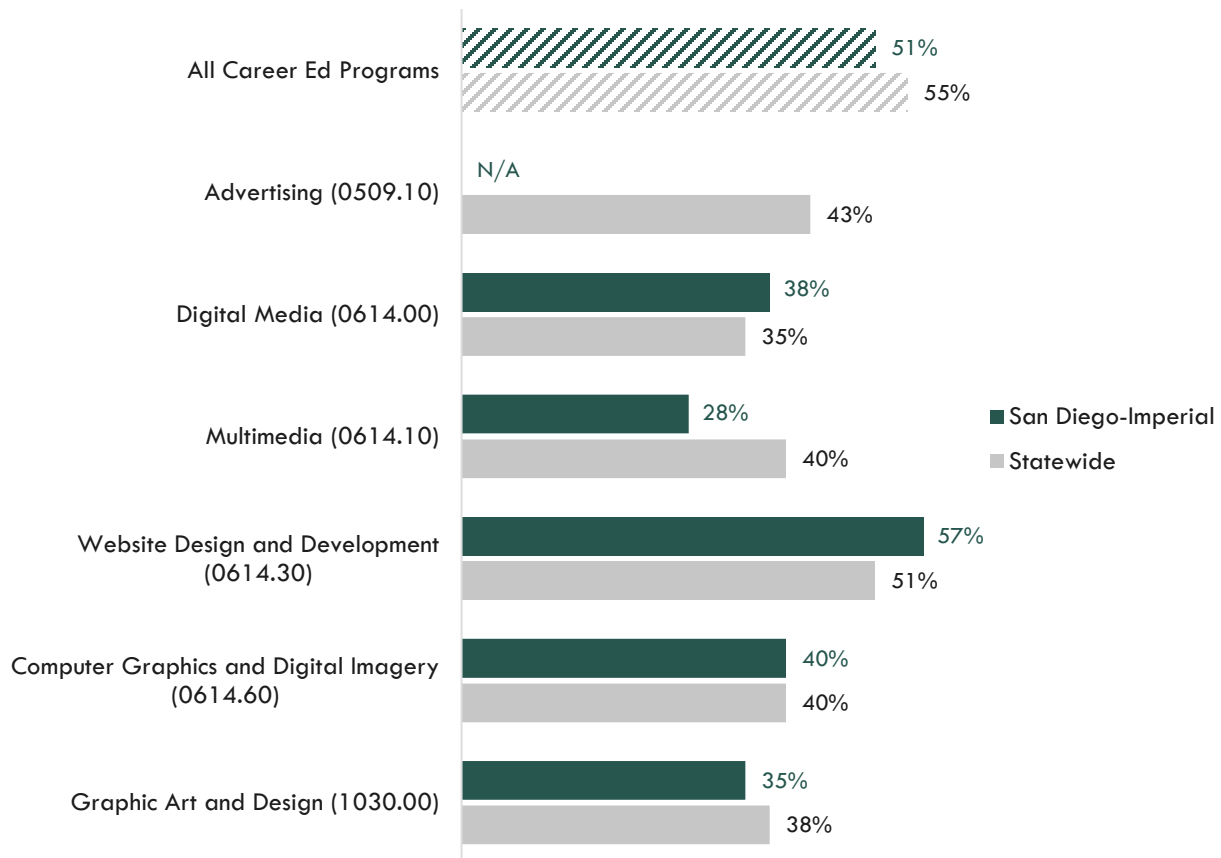[10] "Supply and Demand," Centers of Excellence Student Outcomes, coeccc.net/Supply-and-Demand.aspx.

Student Outcomes and Regional Comparisons

According to the California Community Colleges LaunchBoard, between 28 and 57 percent of students in the San Diego-Imperial region earned a living wage after completing a program related to *Graphic Design Occupations*, compared to 35 to 51 percent statewide and 55 percent of students in Career Education programs in general across the state (Exhibit 6a).

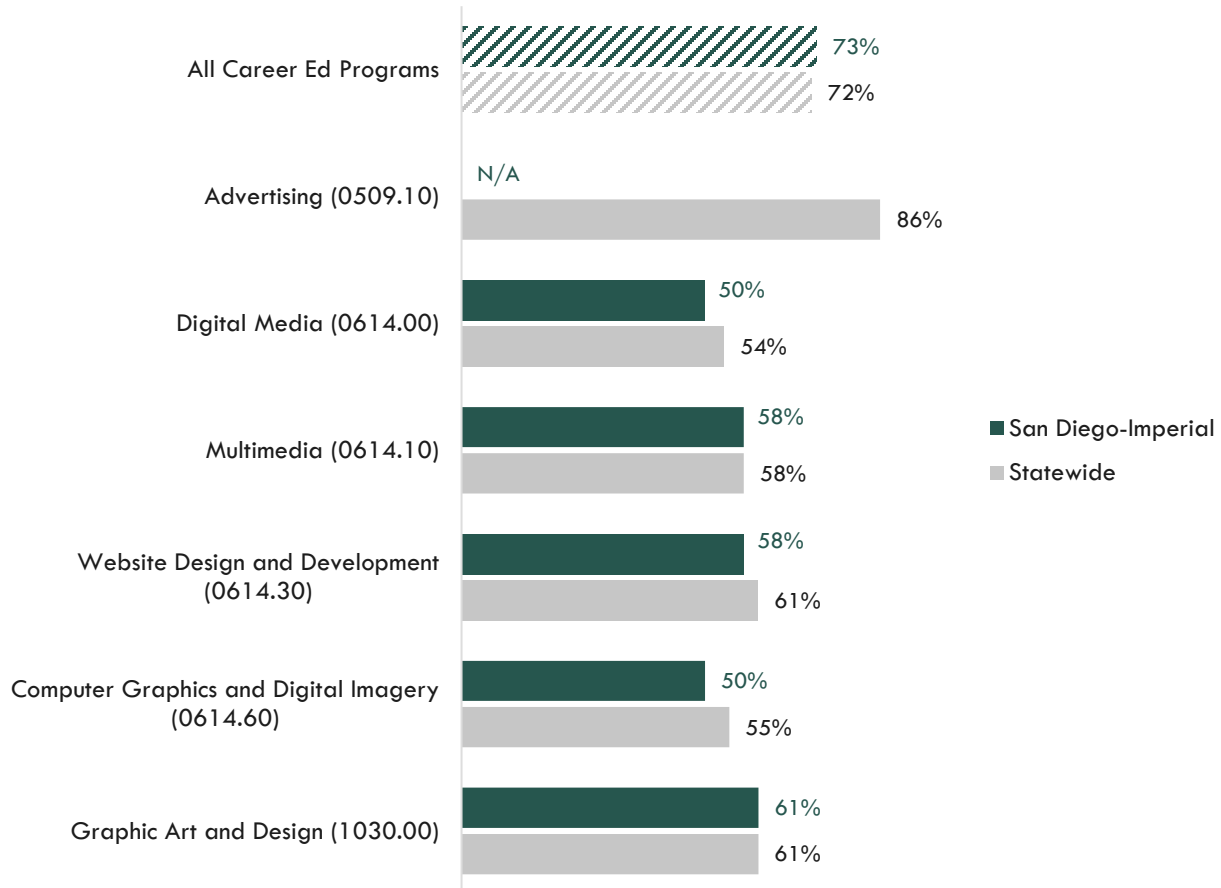**Exhibit 6a: Proportion of Students Who Earned a Living Wage, PY2017-18[11]**

"N/A" indicates insufficient data

According to the California Community Colleges LaunchBoard, between 50 and 61 percent of students in the San Diego-Imperial region obtained a job closely related to their field of study after completing a related program, compared to 54 to 86 percent statewide and 72 percent of students in Career Education programs in general across the state (Exhibit 6b).

Exhibit 6b: Percentage of Students in a Job Closely Related to Field of Study, PY2016-17[12]
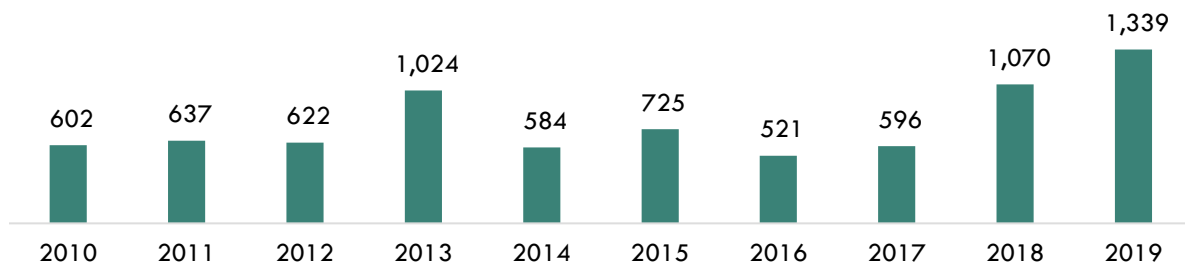

Program	San Diego-Imperial	Statewide
All Career Ed Programs	73%	72%
Advertising (0509.10)	N/A	86%
Digital Media (0614.00)	50%	54%
Multimedia (0614.10)	58%	58%
Website Design and Development (0614.30)	58%	61%
Computer Graphics and Digital Imagery (0614.60)	50%	55%
Graphic Art and Design (1030.00)	61%	61%

"N/A" indicates insufficient data

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[12] Most recent year with available data is Program Year 2016-17. Percentage of Students in a Job Closely Related to Field of Study: Among students who responded to the CTEOS, the percentage reporting employment in the same or similar field as their program of study.

Online Job Postings

This report analyzes not only historical and projected data (traditional labor market information or LMI), but also recent data from online job postings (real-time LMI). Online job postings may provide additional insight about recent changes in the labor market that are not captured by historical data. Between 2010 and 2019, there was an average of 772 online job postings per year in San Diego County for *Graphic Design Occupations* (Exhibit 7). Please note that online job postings do not equal labor market demand; demand is represented by annual job openings (see Exhibit 1b above). Employers may post a position multiple times for various reasons, such as increasing the pool of applicants, for example.

Exhibit 7: Number of Online Job Postings for *Graphic Design Occupations* in San Diego County (2010-2019)[13]

602	637	622	1,024	584	725	521	596	1,070	1,339
2010	2011	2012	2013	2014	2015	2016	2017	2018	2019

Top Employers

Between January 1, 2017 and December 31, 2019, the top five employers in San Diego County for these occupations were Estee Lauder Company, Qualcomm, Sony Electronics, Activision, and General Atomics (Exhibit 8).

Exhibit 8: Top Employers in San Diego County for *Graphic Design Occupations*[14]

Top Employers	
• Estee Lauder Company	• Clinique
• Qualcomm	• Amazon
• Sony Electronics Inc.	• Ulta Beauty Inc.
• Activision	• SHS Incorporated
• General Atomics	• Intrepid Studios

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[13] Burning Glass Technologies, "Labor Insight Real-Time Labor Market Information Tool." 2010-2019.
[14] Burning Glass Technologies, "Labor Insight Real-Time Labor Market Information Tool." 2017-2019.

Education, Skills and Certifications

Graphic Design Occupations have a national educational attainment of a bachelor's degree (Exhibit 9a).

Exhibit 9a: National Educational Attainment for *Graphic Design Occupations* [15]

Occupational Title	Typical Entry-Level Education
Graphic Designers	Bachelor's degree
Fine Artists, Including Painters, Sculptors, and Illustrators	Bachelor's degree

Based on online job postings between January 1, 2017 and December 31, 2019 in San Diego County, the top listed educational requirement for *Graphic Design Occupations* is a bachelor's degree (Exhibit 9b).[16]

Exhibit 9b: Educational Requirements for *Graphic Design Occupations* in San Diego County[17]

15%	5%	78%	2%
High school or vocational training	Associate degree	Bachelor's degree	Master's degree or higher
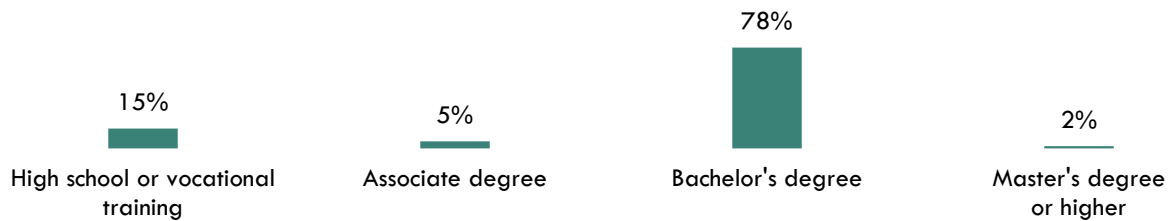
*May not add to 100% due to rounding

[15] EMSI 2020.04; QCEW, Non-QCEW, Self-Employed.
[16] Burning Glass Technologies, "Labor Insight Real-Time Labor Market Information Tool." 2017-2019.
[17] "Educational Attainment for Workers 25 Years and Older by Detailed Occupation," Bureau of Labor Statistics, last modified September 4, 2019. bls.gov/emp/tables/educational-attainment.htm.

Exhibit 10 lists the top specialized, soft and software skills that appeared in online job postings between January 1, 2017 and December 31, 2019.

Exhibit 10: Top Skills for *Graphic Design Occupations* in San Diego County[18]

Specialized Skills	Soft Skills	Software Skills
• Graphic Design	• Creativity	• Adobe Photoshop
• Web Site Design	• Communication Skills	• Adobe InDesign
• Social Media	• Teamwork / Collaboration	• Adobe Illustrator
• Typesetting	• Detail-Oriented	• Adobe Acrobat
• Digital Design	• Organizational Skills	• Adobe Creative Suite
• Project Management	• Meeting Deadlines	• Microsoft PowerPoint
• Visual Design	• Problem Solving	• Visual Design
• Packaging	• Editing	• Microsoft Excel
• Budgeting	• Multi-Tasking	• Adobe Aftereffects
• Marketing Materials	• Time Management	• Maya
• Illustration	• Self-Starter	• Microsoft Word
• Art Direction	• Research	• User Interface (UI) Design
• Retail Industry Knowledge	• Writing	• Infographics
• Photography	• Written Communication	• HTML5
• Customer Service	• Planning	• Verilog

Exhibit 11 lists the top certifications that appeared in online job postings between January 1, 2017 and December 31, 2019.

Exhibit 11: Top 15 Certifications for *Graphic Design Occupations* in San Diego County[19]

Top Certifications in Online Job Postings
1. Makeup Artist
2. Security Clearance
3. Adobe InDesign (Certified)
4. Cosmetology License
5. Graphic Design Certification
6. Certified Graphic Designer
7. Federal Aviation Administration (FAA) Certification
8. AutoCAD Certification
9. Graphic Arts
10. Agile Certification
11. Certified in Graphic Communications
12. Certified in Adobe Photoshop
13. Certified Pharmacy Technician
14. Certified Customer Service Specialist (CSS)
15. Adobe Illustrator Certification

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[19] Burning Glass Technologies, "Labor Insight Real-Time Labor Market Information Tool." 2017-2019.

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Important Disclaimers

All representations included in this report have been produced from primary research and/or secondary review of publicly and/or privately available data and/or research reports. This study examines the most recent data available at the time of the analysis; however, data sets are updated regularly and may not be consistent with previous reports. Efforts have been made to qualify and validate the accuracy of the data and the report findings; however, neither the Centers of Excellence for Labor Market Research (COE), COE host district, nor California Community Colleges Chancellor's Office are responsible for the applications or decisions made by individuals and/or organizations based on this study or its recommendations.

This workforce demand report uses state and federal job projection data that was developed before the economic impact of COVID-19. The COE is monitoring the situation and will provide more information as it becomes available. Please consult with local employers to understand their current employment needs.