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Graphic and Interactive Design Program Report
For Greater South Bay and Peninsula Region
(Santa Clara and San Mateo Counties)

November 2014

Graphic Design

CIP 2010: A program that prepares individuals to apply artistic and computer techniques to the interpretation of technical and commercial concepts. Includes instruction in computer-assisted art and design, printmaking, concepts sketching, technical drawing, color theory, imaging, studio technique, still and life modeling, multimedia applications, communication skills and commercial art business operations.

Target Occupations‡

Art Directors (27-1011)

Multimedia Artists and Animators (27-1014)

Artists and Related Workers, All Other (27-1019)

Graphic Designers (27-1024)

Painting, Coating, and Decorating Workers (51-9123)

‡Based on EMSI crosswalk of the Classification of Instructional Programs (CIP) codes with Standard Occupational Classification (SOC) codes as published by the U.S. Department of Education.

In 2014, the number of graphic and interactive design jobs in the target occupations in Santa Clara and San Mateo Counties totaled 5,449. The Bureau of Labor Statistics (BLS) expects the total number of positions to increase by 3.3% over the next three years. Regional openings in 2014, which included created jobs and turnover, totaled 207. Completions in graphic and interactive design programs totaled 90 from seven institutions, with an additional 351 completions from other related programs. These other programs are linked to multiple occupations and not all those who complete will enter the target occupations indicated in this report.

Target Occupation Performance

5,449*	3.3%*	$29.16/hr
Jobs (2014)	**Growth (2014-2017)**	**Median Earnings**
National Location Quotient: 1.31[†]	National: 0.3%	National: $21.44/hr

*Based on total number of jobs for target occupations Santa Clara and San Mateo Counties.
[†]Represents occupation density as compared to national average (national average=1).

Regional Openings (2014)**	207	
Regional Program Completions (2013)	90	
All Regional Completions for Target Occupations[††] (2013)	441	

**Openings include created jobs and turnover.
[††] Includes all regional programs applicable to target occupations.

Graphic and Interactive Design Occupations Performance

| Target Occupations	Regional Openings (2014)	Median Hourly Earnings	Growth (2014-2017)
Graphic Designers (27-1024)	123	$26.94	2.4%
Multimedia Artists and Animators (27-1014)	51	$29.87	8.3%
Painting, Coating, and Decorating Workers (51-9123)	2	$17.51	0.3%
Art Directors (27-1011)	27	$40.65	1.8%
Artists and Related Workers, All Other (27-1019)	5	$20.11	1.6%

Regional Breakdown for Graphic and Interactive Design Occupations

County Name	2014 Jobs	2017 Jobs	2014 Annual Openings	Median Hourly Earnings	2014 National Location Quotient
Santa Clara	3,540	3,684	142	$26.38	1.17
San Mateo	1,909	1,943	65	$34.20	1.68
Total	5,449	5,627	207	$29.16	

Regional Graphic Design Training Providers

7	90*
Institutions	**Completions (2013)**

*Based on IPEDS data.
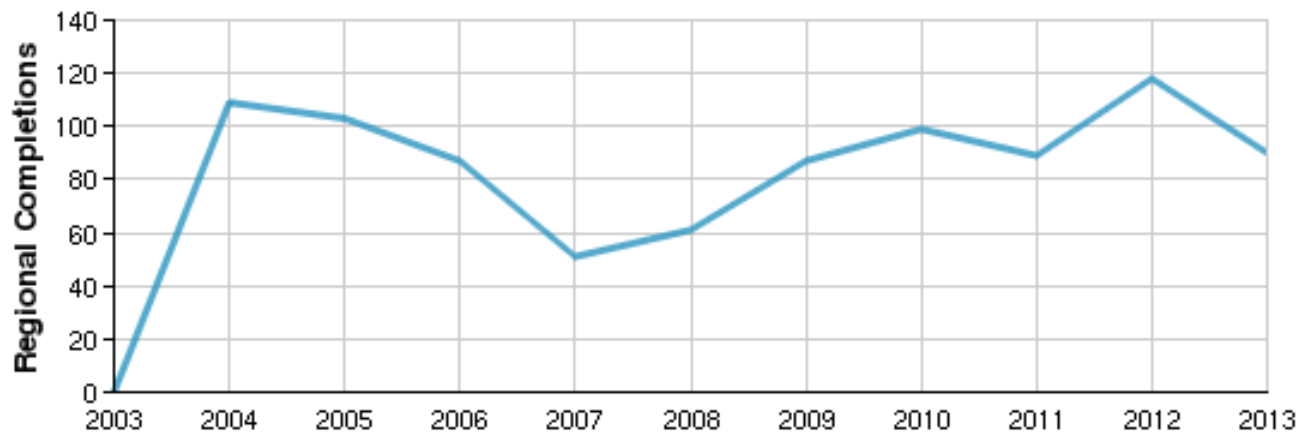
Institution	Degrees	Certificates	Total Completions
The Art Institute of California-Argosy University-Silicon Valley	33	0	33
San Jose State University	22	0	22
De Anza College	5	11	16
Mission College	5	5	10
College of San Mateo	2	2	4

Other regional programs may train individuals eligible for the targeted graphic and interactive design occupations, which are based on an occupation-program crosswalk developed by the Department of Education. These additional programs are offered at 16 regional colleges*. As noted earlier, many postsecondary programs are linked to multiple occupations and not all those who complete the program will enter the target occupation.

Related Regional Programs Allowing Entry to Graphic and Interactive Design

14	441			
Programs (2013)	**Completions (2013)**			

Program	2009	2010	2011	2012	2013
Fine/Studio Arts, General (50.0702)	113	125	128	131	166
Graphic Design (50.0409)	87	99	89	118	90
Web Page, Digital/Multimedia and Information Resources Design (11.0801)	14	14	12	49	42
Animation, Interactive Technology, Video Graphics and Special Effects (10.0304)	38	41	47	59	40
Visual and Performing Arts, General (50.0101)	24	31	26	28	30
Computer Graphics (11.0803)	1	25	21	33	29
Industrial and Product Design (50.0404)	16	26	23	28	20
Game and Interactive Media Design (50.0411)	0	0	0	2	15
Drawing (50.0705)	1	5	4	4	6
Commercial and Advertising Art (50.0402)	2	0	1	2	2
Design and Visual Communications, General (50.0401)	0	0	0	0	1
Visual and Performing Arts, Other (50.9999)	0	0	0	0	0
Intermedia/Multimedia (50.0706)	0	0	0	0	0
Digital Communication and Media/Multimedia (09.0702)	0	0	0	0	0

*Additional colleges: Canada College, Cogswell College, De Anza College, Evergreen Valley College, Foothill College, Gavilan College, Mission College, Notre Dame de Namur University, San Jose State University, College of San Mateo, Santa Clara University, Skyline College, West Valley College, Stanford University, Carrington College, The Art Institute of California-Argosy University-Silicon Valley

Target Occupations Demographics

The demographics among those employed in graphic and interactive design occupations in Santa Clara and San Mateo Counties for 2014 show that more men than women (56% and 44%) are employed in these occupations and over half are between the ages of 25-44 (60%).

Gender Demographics (Regional)

Gender		
Male	56%	
Female	44%	

Age Demographics (Regional)

Age		
14-18	0%	
19-24	6%	
25-44	60%	
45-64	30%	
65+	3%	

Industries Employing Graphic and Interactive Design Occupations

A number of industries in Santa Clara and San Mateo Counties employ those trained in graphic and interactive design and its related occupations. The following table represents a regional industry breakdown of the number of graphic and interactive design positions employed, the percentage of graphic and interactive design jobs employed by industry and the percentage graphic and interactive design jobs represent within all jobs by each industry. While graphic design services employed 12.2% of all regional graphic and interactive design positions in 2014, graphic and interactive design and its related occupations represent 38.3% of the total jobs in that industry.

Inverse Staffing Patterns (Regional)

Industry	Occupation Group Jobs in Industry (2014)	% of Occupation Group in Industry (2014)	% of Total Jobs in Industry (2014)
Graphic Design Services (541430)	665	12.2%	38.3%
Internet Publishing and Broadcasting and Web Search Portals (519130)	493	9.1%	1.3%
Interior Design Services (541410)	437	8.0%	40.0%
Independent Artists, Writers, and Performers (711510)	317	5.8%	13.0%
Custom Computer Programming Services (541511)	301	5.5%	0.6%

Compatible Occupations for Graphic and Interactive Design

Individuals completing a graphic and interactive design program share many skills and abilities with other occupations. The Occupational Information Network (O*Net) identifies compatible occupations based on an analysis of overlapping knowledge, skills and ability. Additional education required for transition can range from short on-site training to advanced post-secondary degrees. The following tables show how much education might be needed to be employed in these compatible occupations.

Top Ten Compatible Occupations for Graphic Design: Associate's Degree or Less

Rank	Occupation	Median Hourly Earnings	2014 Jobs	2014-2017 Change	2014-2017 Estimated Annual Openings
1	Shoe and Leather Workers and Repairers	$13.64	24	(3)	0
2	Coil Winders, Tapers, and Finishers	$23.72	289	(7)	3
3	Cutters and Trimmers, Hand	$11.22	46	(2)	1
4	Janitors and Cleaners, Except Maids and Housekeeping Cleaners	$11.96	24,711	1,381	714
5	Laundry and Dry-Cleaning Workers	$11.79	1,500	82	60
6	Solderers and Brazers	$18.66	2,027	(22)	42
7	Textile Knitting and Weaving Machine Setters, Operators, and Tenders	$11.94	<10	2	1
8	Food Servers, Nonrestaurant	$12.07	2,353	283	127
9	Helpers--Production Workers	$12.99	2,359	17	40
10	Mail Clerks and Mail Machine Operators, Except Postal Service	$16.51	503	2	10

Data Sources and Calculations

State Data Sources

This report uses state data from the following agencies: California Labor Market Information Department

Institution Data

The institution data in this report is taken directly from the national IPEDS database published by the U.S. Department of Education's National Center for Education Statistics.

Completers Data

The completers data in this report is taken directly from the national IPEDS database published by the U.S. Department of Education's National Center for Education Statistics.

Occupation Data

EMSI occupation employment data are based on final EMSI industry data and final EMSI staffing patterns. Wage estimates are based on Occupational Employment Statistics (QCEW and Non-QCEW Employees classes of worker) and the American Community Survey (Self-Employed and Extended Proprietors). Occupational wage estimates also affected by county-level EMSI earnings by industry.

Staffing Patterns Data

The staffing pattern data in this report are compiled from several sources using a specialized process. For QCEW and Non-QCEW Employees classes of worker, sources include Occupational Employment Statistics, the National Industry-Occupation Employment Matrix, and the American Community Survey. For the Self-Employed and Extended Proprietors classes of worker, the primary source is the American Community Survey, with a small amount of information from Occupational Employment Statistics.

Industry Data

EMSI industry data have various sources depending on the class of worker. (1) For QCEW Employees, EMSI primarily uses the QCEW (Quarterly Census of Employment and Wages), with supplemental estimates from County Business Patterns and Current Employment Statistics. (2) Non-QCEW employees data are based on a number of sources including QCEW, Current Employment Statistics, County Business Patterns, BEA State and Local Personal Income reports, the National Industry-Occupation Employment Matrix (NIOEM), the American Community Survey, and Railroad Retirement Board statistics. (3) Self-Employed and Extended Proprietor classes of worker data are primarily based on the American Community Survey, Nonemployer Statistics, and BEA State and Local Personal Income Reports. Projections for QCEW and Non-QCEW Employees are informed by NIOEM and long-term industry projections published by individual states.