Labor Market Analysis for Program Recommendation
Industrial Design Occupations
Silicon Valley Subregion

Prepared by the Bay Region Center of Excellence for Labor Market Research

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Recommendation

Based on all available data, there appears to be an "undersupply" of Industrial Design workers compared to the demand for this cluster of occupations in the Bay Region and in the Silicon Valley Subregion (Santa Clara County). There is a projected annual gap of about 1,067 students in the Bay Region and 373 students in the Silicon Valley Subregion.

Introduction

This report provides student outcomes data on employment and earnings for TOP 1009.00 - Applied Design and TOP 0953.40 - Mechanical Drafting 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 Subregion in the state and region.

This report includes occupations with two different skill levels. The occupations classified as middle-skill occupations require a certificate, or an associate degree, or it may require a bachelor's degree, but 33% or fewer of current workers in these roles hold one. In contrast, above middle-skill occupations require a bachelor's degree or higher. This program is intended for students who plan to enter the workforce with an associate or bachelor's degree, therefore, it includes occupations with two different skill levels.

This report profiles Industrial Design Occupations in the 12 county Bay Region and in the Silicon Valley Subregion.

- **Web and Digital Interface Designers (15-1255):** Design digital user interfaces or websites. Develop and test layouts, interfaces, functionality, and navigation menus to ensure compatibility and usability across browsers or devices. May use web framework applications as well as client-side code and processes. May evaluate web design following web and accessibility standards, and may analyze web use metrics and optimize websites for marketability and search engine ranking. May design and test interfaces that facilitate the human-computer interaction and maximize the usability of digital devices, websites, and software with a focus on aesthetics and design. May create graphics used in websites and manage website content and links.
  Typical Entry-Level Educational: Bachelor's degree
  Skill Level: Middle-Skill
  Work Experience Required: None
  Percentage of individuals 25+ with an associate degree, certificate, or some postsecondary coursework as their highest level of education attainment: 23%

- **Mechanical Drafters (17-3013):** Prepare detailed working diagrams of machinery and mechanical devices, including dimensions, fastening methods, and other engineering information.
  Typical Entry-Level Educational: Associate's degree
  Skill Level: Middle-Skill

Work Experience Required: None

Percentage of individuals 25+ with an associate degree, certificate, or some postsecondary coursework as their highest level of education attainment: 58%

- **Commercial and Industrial Designers (27-1021):** Design and develop manufactured products, such as cars, home appliances, and children's toys. Combine artistic talent with research on product use, marketing, and materials to create the most functional and appealing product design.

    Typical Entry-Level Educational: Bachelor's degree

    Skill Level: Above Middle-Skill

    Work Experience Required: None

    Percentage of individuals 25+ with an associate degree, certificate, or some postsecondary coursework as their highest level of education attainment: 20%

- **Set and Exhibit Designers (27-1027):** Design special exhibits and sets for film, video, television, and theater productions. May study scripts, confer with directors, and conduct research to determine appropriate architectural styles.

    Typical Entry-Level Educational: Bachelor's degree

    Skill Level: Above Middle-Skill

    Work Experience Required: None

    Percentage of individuals 25+ with an associate degree, certificate, or some postsecondary coursework as their highest level of education attainment: 28%

Occupational Demand

Table 1. Employment Outlook for Industrial Design Occupations in the Bay Region

Occupation	2023 Jobs	2028 Jobs	5-yr Change	5-yr % Change	5-yr Total Openings	Annual Openings	25% Hourly Wage	Median Hourly Wage
Web and Digital Interface Designers	11,849	12,194	345	3%	4,910	982	$51	$77
Mechanical Drafters	1,215	1,153	-62	-5%	484	97	$34	$42
Commercial and Industrial Designers	1,125	1,108	-17	-1%	399	80	$33	$47
Set and Exhibit Designers	1,077	1,051	-26	-2%	448	90	$18	$27
Total	**15,266**	**15,506**	**240**	**2%**	**6,241**	**1,249**	**$46**	**$68**

Source: Lightcast 2025.1

The 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 Industrial Design Occupations in the Silicon Valley Subregion

Occupation	2023 Jobs	2028 Jobs	5-yr Change	5-yr % Change	5-yr Total Openings	Annual Openings	25% Hourly Wage	Median Hourly Wage
Web and Digital Interface Designers	3,995	3,972	-24	-1%	1,535	307	$63	$82
Mechanical Drafters	416	388	-28	-7%	161	32	$37	$48
Commercial and Industrial Designers	232	239	8	3%	88	18	$45	$63
Set and Exhibit Designers	171	175	4	2%	79	16	$17	$34

Occupation	2023 Jobs	2028 Jobs	5-yr Change	5-yr % Change	5-yr Total Openings	Annual Openings	25% Hourly Wage	Median Hourly Wage
Total	4,814	4,774	-40	-1%	1,863	373	$58	$76

Source: Lightcast 2025.1

Silicon Valley Subregion includes: Santa Clara County

Job Postings in the Bay Region and Silicon Valley Subregion

Table 3. Number of Job Postings by Occupation for the latest 12 months

Occupation	Bay Region	Silicon Valley
Web and Digital Interface Designers	6,455	2,899
Commercial and Industrial Designers	3,300	1,439
Set and Exhibit Designers	241	33
Mechanical Drafters	106	36

Source: Lightcast 2025.3; "Job Posting Analytics." Sep. 2024 - Aug. 2025

Table 4a. Top Job Titles in Job Postings for Industrial Design Occupations in the Bay Region

Title	Bay	Title	Bay
Product Designers	1,316	Content Designers	126
UX Designers	502	UI Developers	103
UX Researchers	424	Visual Designers	99
Product Design Engineers	273	Interaction Designers	95
User Experience Designers	261	Design Principals	87
UI/UX Designers	240	UI Engineers	81
Product Engineers	199	Experience Designers	76
Lead Product Designers	154	Brand Designers	53
Principal Product Managers	130	Designers	52

Source: Lightcast 2025.3; "Job Posting Analytics." Sep. 2024 - Aug. 2025

Table 4b. Top Job Titles in Job Posting for Industrial Design Occupations in the Silicon Valley Subregion

Title	Silicon Valley	Title	Silicon Valley
Product Designers	410	Lead Product Designers	58
UX Designers	233	Principal Product Managers	57
Product Design Engineers	217	UI Engineers	56
UX Researchers	194	Visual Designers	47

Title	Silicon Valley	Title	Silicon Valley
UI/UX Designers	116	Content Designers	45
User Experience Designers	93	Product Development Engineers	42
Product Engineers	71	Design Principals	39
Interaction Designers	61	Google Specialists	37
UI Developers	59	GUI Software Engineers	34

Source: Lightcast 2025.3; "Job Posting Analytics." Sep. 2024 - Aug. 2025

Industry Concentration

Table 5. Industries Hiring for Industrial Design Occupations in the Bay Region

Industry - 6 Digit NAICS (No. American Industry Classification) Codes	Jobs in Industry (2023)	Jobs in Industry (2028)	% Change (2023-28)	% Occupation Group in Industry (2023)
Software Publishers	1,576	2,097	33%	12%
Custom Computer Programming Services	2,041	1,722	-16%	10%
Web Search Portals and All Other Information Services	1,127	1,542	37%	9%
Media Streaming Distribution Services, Social Networks, and Other Media Networks and Content Providers	1,197	1,190	-1%	7%
Computing Infrastructure Providers, Data Processing, Web Hosting, and Related Services	887	1,120	26%	6%
Computer Systems Design Services	901	837	-7%	5%
Corporate, Subsidiary, and Regional Managing Offices	310	631	104%	4%
Graphic Design Services	338	287	-15%	2%
Interior Design Services	316	284	-10%	2%
Engineering Services	355	270	-24%	2%

Source: Lightcast 2025.3

Table 6. Top Employers Posting Industrial Design Occupations in the Bay Region and the Silicon Valley Subregion

Employer	Bay	Employer	Silicon Valley
Google	581	Apple	490
Apple	495	Google	403
Meta	307	PayPal	139

Employer	Bay	Employer	Silicon Valley
Amazon	199	Amazon	112
PayPal	166	Tiktok	109
Tiktok	118	Intuit	60

Source: Lightcast 2025.3; "Job Posting Analytics." Sep. 2024 - Aug. 2025

Educational Supply

There is one community college in the Bay Region issuing 1 award on average annually (last 3 years ending 2023-24) on TOP 1009.00 - Applied Design and TOP 0953.40 - Mechanical Drafting. In the Silicon Valley subregion, there are no community colleges that issued awards on average annually (last 3 years) on this TOP code.

There are two other CTE educational institutions in the Bay Region issuing 55 awards on average annually (last 3 years ending 2022-23) on CIP 50.0401- Design and Visual Communications, General There are no other CTE educational institution in the Silicon Valley Subregion issuing awards on average annually (last 3 years) on this CIP code.

There are two four-year institutions in the Bay Region issuing 126 bachelor's degrees on average annually (last 3 years ending 2022-23) on CIP 50.0401- Design and Visual Communications, General There are no four-year institutions in the Silicon Valley Subregion issuing no bachelor's degrees on this CIP code.

Table 7a. Community College Awards on TOP 1009.00 and - Applied Design and TOP 0953.40 - Mechanical Drafting in the Bay Region

College	Subregion	Associate Degree	Total
Marin	North Bay	1	1
Total	**-**	**1**	**1**

Source: Data Mart

Note: The annual average for awards is 2021-22 to 2023-24. TOP code 0953.40 Mechanical Drafting had no certificates or degrees associated with it. 0953.40 Mechanical Drafting had no certificates or degrees associated with it.

Table 7b. Other CTE Institutions Awards on CIP 50.0401- Design and Visual Communications, General in the Bay Region

College	Subregion	Bachelor's degree	Total
California College of the Arts	Mid-Peninsula	0	29
University of San Francisco	Mid-Peninsula	26	26
Total	**-**	**26**	**55**

Source: Data Mart

Note: The annual average for awards is 2020-21 to 2022-23.

Table 7c. Bachelor's Degree Awards on CIP 50.0401- Design and Visual Communications, General in the Bay Region

College	Subregion	Bachelor's degree	Total
California State University-Monterey Bay	SC-Monterey	43	43
San Francisco State University	Mid-Peninsula	83	83
Total	**-**	**126**	**126**

Source: Data Mart

Note: The annual average for awards is 2020-21 to 2022-23.

Gap Analysis

Based on the data included in this report, there is a labor market gap in the Bay Region with 1,249 annual openings for the Industrial Design occupational cluster and 182 annual (3-year average) awards for an annual undersupply of 1,067 students. In the Silicon Valley Subregion, there is also a gap with 373 annual openings and no annual (3-year average) awards for an annual undersupply of 373 students.

Student Outcomes

Table 8a. Four Employment Outcomes Metrics for Students Who Took Courses on TOP 1009.00 - Applied Design

Metric Outcomes	Bay All CTE Program	State 1009.00	Bay 1009.00	Silicon Valley 1009.00
Students with a Job Closely Related to Their Field of Study	74%	46%	83%	80%
Median Annual Earnings for SWP Exiting Students	$53,090	$25,294	$33,542	$29,624
Median Change in Earnings for SWP Exiting Students	24%	36%	54%	30%
Exiting Students Who Attained the Living Wage	54%	30%	29%	NA

Source: Launchboard Strong Workforce Program Median of 2018 to 2021.

Table 8b. Four Employment Outcomes Metrics for Students Who Took Courses on TOP 0953.40 -Mechanical Drafting

Metric Outcomes	Bay All CTE Program	State 0953.40	Bay 0953.40	Silicon Valley 0953.40
Students with a Job Closely Related to Their Field of Study	74%	74%	NA	NA
Median Annual Earnings for SWP Exiting Students	$53,090	$49,994	$85,202	$97,356
Median Change in Earnings for SWP Exiting Students	24%	31%	-2%	-22%
Exiting Students Who Attained the Living Wage	54%	72%	73%	NA

Source: Launchboard Strong Workforce Program Median of 2018 to 2021.

Skills, Certifications and Education

Table 9. Top Skills in Job Postings for Industrial Design Occupations in the Bay Region

Skill	Posting	Skill	Posting
User Experience (UX)	4,364	Visual Design	1,614
Product Design	4,112	Interaction Design	1,589
Prototyping	3,466	Workflow Management	1,551
Figma (Design Software)	2,662	Marketing	1,527
User Experience (UX) Design	2,435	Product Management	1,347
User Interface (UI)	2,282	Computer Science	1,346
User Research	2,154	Usability Testing	1,339
New Product Development	2,092	Usability	1,318
Wireframing	1,734	User-Centered Design	1,251
Artificial Intelligence	1,732	UI/UX Research	1,127

Source: Lightcast 2025.3; "Job Posting Analytics." Sep. 2024 - Aug. 2025

Table 10. Certifications in Job Postings for Industrial Design Occupations in the Bay Region

Certification	Posting	Certification	Posting
Fundamental Payroll Certification (FPC)	19	Product Certification	9
Adobe Illustrator Certification	10	Project Management Professional Certification	7

Source: Lightcast 2025.3; "Job Posting Analytics." Sep. 2024 - Aug. 2025

Table 11. Education Requirements for Industrial Design Occupations in the Bay Region

Education Level	Job Postings	% of Total
High school or GED	59	1%
Associate degree	78	1%
Bachelor's degree & higher	7,114	98%

Source: Lightcast 2025.3; "Job Posting Analytics." Sep. 2024 - Aug. 2025

Note: 53% of records have been excluded because they do not include a degree level. As a result, the chart above may not be representative of the full sample.

Methodology

Occupations for this report were identified by use of job descriptions and skills listed in O*Net. Labor demand data is sourced from Lightcast occupation and job postings data. Educational supply and student outcomes data is retrieved from multiple sources, including CCCCO Data Mart and CTE Launchboard.

Sources

O*Net Online
Lightcast
CTE LaunchBoard www.calpassplus.org
Statewide CTE Outcomes Survey
Employment Development Department Unemployment Insurance Dataset
CCCCO Data Mart

Contacts

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