

Moreno Valley College

**TOP Code 061460: Computer Graphics and Digital Imagery**

Regional Labor Market Information and Analysis

August 2024

## **I. Introduction, Definitions, and Data Sources**

This report summarizes program completion and employment data to analyze the regional market for TOP Code 061460: Computer Graphics and Digital Imagery. It draws from the California Community Colleges Chancellor's Office (CCCCO) Curriculum Inventory, Datamart, and Perkins Core Indicator Reports; the U.S. Bureau of Labor Statistics; the Centers of Excellence for Labor Market Research (COE); the CA Employment Development Department; and O\*NET OnLine.

### **Definitions:**

#### ***Labor Market Supply and Demand***

##### **TOP Code**

The California Community Colleges Taxonomy of Programs (TOP) Code is a numeric system used by the state to collect and report information on programs and courses with similar outcomes across colleges. This report refers to TOP Code Manual 6<sup>th</sup> Edition (2013).

*Source: California Community Colleges Curriculum and Instruction Unit*

##### **SOC Code**

The Standard Occupational Classification (SOC) system is used by federal agencies to classify workers into occupational categories to collect, calculate, or disseminate data. All workers are classified into one of 867 detailed occupations according to their occupational definition. Detailed occupations with similar job duties, and in certain instances skills, education, and/or training, are grouped together. The SOC Code system provides a uniform framework to classify positions based on the work performed regardless of the employer or industry.

*Source: U.S. Bureau of Labor Statistics, CA Employment Development Department*

#### **Occupational Employment Projections**

Occupational employment projections estimate changes in occupational employment over time as a result of industry growth, technological changes, and other factors. Projection data are estimates and assume the continuation of historical trends, while acknowledging that a variety of events can occur during the projection period that can impact employment levels.

*Source: CA Employment Development Department*

##### Short-term projections:

Short-term (2-year) projections are based on quarterly average employment levels by industry for base and target quarters. Averages may reflect seasonality in some occupations.

*Source: CA Employment Development Department*

##### Long-term projections:

Long-term (10-year) projections are based on annual average employment levels by industry for base and target years. When using long-term projections data, it is important to note the annual average employment levels for seasonal occupations in agriculture, construction, retail sales, or recreation may vary significantly from seasonal peak periods.

*Source: CA Employment Development Department*

### **Total Job Openings**

Total job openings represents the sum of growth (new jobs) and replacement needs. It is the sum of exits (projected number of workers leaving an occupation and exiting the labor force entirely), transfers (projected number of workers permanently leaving an occupation and transferring to a different occupation), and numeric change (projected number of job gains or losses in an occupation for the projection period).

*Source: CA Employment Development Department*

### **Median Annual Wage**

Median wage estimates are the mid-point of the wage distribution. 50% of workers in an occupation earn wages below and 50% earn wages above the median wage.

*Source: CA Employment Development Department*

### ***Student Progress Measures***

#### **Perkins Core Indicator 1: Postsecondary Retention & Placement**

This indicator measures the percentage of CTE concentrators who, during the second quarter after program completion, remain enrolled in postsecondary education, are in advanced training, military service, a service program that receives assistance under title I of the National and Community Service Act of 1990, volunteers under the Peace Corps Act, or placed or retained in employment.

*Source: California Community Colleges, CCCCCO.edu*

#### **Perkins Core Indicator 2: Earned Postsecondary Credential**

This indicator measures student attainment of an industry-recognized credential, a certificate, or a degree. It is the percentage of leaver and completer concentrators who: 1) receive a degree, certificate, or equivalent; or 2) complete a transfer program and are classified as Transfer Ready.

*Source: California Community Colleges, CCCCCO.edu*

#### **Perkins Core Indicator 4: Employment**

This indicator measures student placement in military service, apprenticeship programs, or placement or retention in employment, including placement in high skill, high wage, or high demand occupations or professions. It is the percentage of Career Technical Education (CTE) program leavers and completers who did not transfer to a two or four-year institution and who, during one of the four quarters following the cohort year, were in an apprenticeship program, Unemployment Insurance covered employment, the federal government, or the military.

*Source: California Community Colleges, CCCCCO.edu*

### **Data Sources:**

#### TOP-SOC Codes

Moreno Valley College active credit CTE program TOP Codes were obtained from the Chancellor's Office Curriculum Inventory System. The COE TOP-CIP-SOC crosswalk and O\*Net Online were used to match TOP Codes to SOC Codes. Additional SOC Codes using Classification of Instructional Programs (CIP) codes may be found at <https://nces.ed.gov/ipeds/cipcode/post3.aspx?y=56>

Total Job Openings and Median Annual Wage

Total job openings and median annual wage projection data were obtained from the CA Employment Development Department.

Educational Attainment and Requirements

Educational attainment and requirement data were obtained from the U.S. Bureau of Labor Statistics.

**II. Degrees and Certificates**

At Moreno Valley College, the following active credit CTE programs are coded as TOP Code 061460 - Computer Graphics and Digital Imagery:

Program Title	Program Award
Basic Graphic Design	Certificate of Achievement requiring 16 to < 30 semester units or 24 to < 45 quarter units

Source: The Chancellor's Office Curriculum Inventory System

**MVC Student Achievement**

**Credit Program Awards (2022-2023) - TOP Code 061460**

<b>Total MVC Credit Program Awards</b>	<b>4</b>
Certificate requiring 16 to < 30 semester units	4

Source: CCCC Datamart

**Perkins Core Indicators (Cohort Year 2020-2021\*) - TOP Code 061460**

Outcome	MVC	Statewide	Performance Goal
Core 1: Postsecondary Retention & Placement	<10	94.8%	91.8%
Core 2: Earned Postsecondary Credential	<10	76.4%	89.0%
Core 4: Employment	<10	66.5%	73.2%

Source: CCCC Perkins Core Indicator Reports

\*Most recent cohort year available for this TOP Code

### III. Projected Job Outlook

Based on the TOP-CIP-SOC crosswalk provided by the COE, the following SOC Codes were examined to complete the job outlook for TOP Code 061460:

- 27-1014
- 27-1024

#### Short-Term Projections:

The table below shows short-term (2023-2025) occupational employment projections for the state of California in the SOC Codes linked to TOP Code 061460. Note, short-term projections are not available below the state level.

#### California Short-Term Job Outlook by SOC Code

SOC Code	Description	Total Job Openings	Median Annual Wage
27-1014	Special Effects Artists and Animators	10,220	\$134,664
27-1024	Graphic Designers	7,160	\$74,207

Source: CA Employment Development Department

#### Long-Term Projections:

The table below shows Inland Empire long-term (2020-2030) projected job openings and median wages, educational requirements, and educational attainment of individuals within these occupations.

#### Inland Empire Long-Term Job Outlook by SOC Code

SOC Code	Description	Typical Education Needed for Entry	% of Individuals with Some College, No Degree	% of Individuals with an Associate's Degree	% of Individuals with a Bachelor's Degree	Inland Empire Total Job Openings	Median Annual Wage
27-1014	Special Effects Artists and Animators	Bachelor's degree	19.1%	8.3%	42.4%	240	\$83,257
27-1024	Graphic Designers	Bachelor's degree	13.2%	12.1%	59.9%	2,230	\$58,856

Sources: CA Employment Development Department, COE Crosswalk, Bureau of Labor Statistics

It is projected that between 2020-2030 there will be 2,470 Inland Empire job openings in the SOC Codes associated with TOP Code 061460. According to the Bureau of Labor Statistics, both of the occupations linked to this TOP Code typically require a bachelor's degree. It is estimated that 42% of Special Effects Artists

and Animators, and 60% of Graphic Designers have bachelor’s degrees. The MIT Living Wage Calculator estimates the annual living wage is \$53,601 for a single person with no children in the Riverside-San Bernardino-Ontario metropolitan region. With median wages of \$83,257 and \$58,856, both of these occupations exceed the living wage for the region.

#### IV. Regional Completers

The table below shows the number of students at Inland Empire community colleges receiving degrees and certificates in TOP Code 061460 in 2022-2023. Colleges included in this analysis are: Barstow Community College, Chaffey College, College of the Desert, Copper Mountain College, Crafton Hills College, Moreno Valley College, Mt. San Jacinto College, Norco College, Palo Verde College, Riverside City College, San Bernardino Valley College, and Victor Valley College.

The following colleges had credit program awards in TOP Code 061460 in 2022-2023: Chaffey College, College of the Desert, and Moreno Valley College.

#### Inland Empire Community College Credit Program Awards 2022-2023 - TOP Code 061460

<b>Total Program Awards</b>	<b>36</b>
<b>Associate Degrees</b>	<b>22</b>
Associate of Arts (A.A.) degree	10
Associate of Science (A.S.) degree	12
<b>Credit Certificates</b>	<b>14</b>
Certificate requiring 30 to < 60 semester units	2
Certificate requiring 16 to < 30 semester units	12

Source: CCCCCO Datamart

#### V. Net Labor Demand

To estimate net annual labor demand, we consider the estimated number of job openings, minus the annual number of program completers. The estimated total annual job openings in the table below is calculated by dividing the total for the 10-year projection period by 10. The projected Inland Empire job openings for the SOC Codes corresponding to TOP Code 061460 between 2020 and 2030 2,470. Dividing that number by 10 produces an annual estimate of 247 openings. With 36 program completers for the year 2022-2023, there is an estimated net labor demand of 211.

**Net Annual Labor Demand-Inland Empire Community Colleges - TOP Code 061460**

Total Estimated Annual Job Openings	247
Program Completers	36
<b>Net Annual Labor Demand</b>	<b>211</b>

In evaluating net labor demand, it is important to note that the SOC Codes matching TOP Code 061460 are also linked to other TOP Codes. The table below shows all of the TOP Codes matching the SOC Codes in this report.

SOC Code	TOP Code
27-1014: Special Effects Artists and Animators	061400: Digital Media 061410: Multimedia 061420: Electronic Game Design 061440: Animation 061460: Computer Graphics and Digital Imagery 103000: Graphic Art and Design
27-1024: Graphic Designers	061400: Digital Media 061460: Computer Graphics and Digital Imagery 100900: Applied Design 101300: Commercial Art 103000: Graphic Art and Design

Source: COE Crosswalk