

# Surgical Technician

*Inland Empire/Desert Region (Riverside and San Bernardino counties)*

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*This workforce demand report uses state and federal job projection data 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.*

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## Summary

- Community college surgical technician programs provide the knowledge, skills, and abilities that lead to the community college-level surgical technologist occupation.
- Employment is expected to increase by 17% through 2025, with 98 job openings available annually over this period.
- This occupation's 50th percentile hourly earnings are \$27.22 per hour, above the regional \$24.36 per hour self-sustainable earnings standard for a single adult with one child.
- Regional community colleges do not currently offer surgical technician programs.
- The Centers of Excellence recommends developing a surgical technician program to meet the regional demand for surgical technologists. For more information, see the [recommendation section](#).

## Introduction

This report aims to quantify regional supply and demand related to surgical technologists in the Inland Empire/Desert Region. California Community College surgical technician (TOP 1217.00) programs prepare students for employment as surgical technologists through instruction related to the procedures, skills, and use of equipment to assist in surgery (Taxonomy of Programs, 2012). The knowledge, skills, and abilities trained by surgical technician programs lead to the surgical technologist occupation.

### **Surgical Technologists (29-2055)**

Assist in operations, under the supervision of surgeons, registered nurses, or other surgical personnel. May help set up operating room, prepare and transport patients for surgery, adjust lights and equipment, pass instruments and other supplies to surgeons and surgeons' assistants, hold retractors, cut sutures, and help count sponges, needles, supplies, and instruments.

**Sample job titles:** Certified Surgical Technician, Certified Surgical Technologist (CST), Operating Room Surgical Technician (OR St), Operating Room Technician (OR Tech), Operating Room Technologist (OR Tech), Surgical Scrub Technician, Surgical Scrub Technologist (Surgical Scrub Tech), Surgical Technician, Surgical Technologist (Surgical Tech)

*Entry-Level Educational Requirement: Postsecondary nondegree award*

*Work Experience Required: None*

*Training Requirement: None*

*Incumbent workers with a Community College Award or Some Postsecondary Coursework: 73%*

## Job Counts and Projections

In 2020, there were 860 surgical technologist jobs in the Inland Empire/Desert Region. Employment for this occupation is expected to grow by 17% through 2025. Over this period, there will be 98 annual job openings projected for surgical technologists. Exhibit 1 displays the job counts, five-year projected job growth, job openings, and the share of incumbent workers age 55 years and greater in the region.

*Exhibit 1: Five-year projections, 2020-2025*

2020 Jobs	2025 Jobs	5-Yr % Change (New Jobs)	5-Yr Openings (New + Replacement Jobs)	Annual Openings (New + Replacement Jobs)	% of workers age 55+
860	1,007	17%	491	98	13%

Source: Emsi 2021.3

A search of online job advertisements for surgical technologist jobs over the last 12 months revealed the details about the employers seeking these workers, including the time it takes to fill positions, earnings information, and in-demand skills. Over the previous 12 months, 126 job advertisements for surgical technologists were posted in the region. Please note that job advertisements were limited to positions that required a surgical technologist certification.

Exhibit 2 shows the number of job ads posted during the last 12 months and the regional and statewide average time to fill this job. On average, regional employers fill online job advertisements for surgical technologists within 31 days. The regional average time to fill is two days shorter than the statewide average time to fill, indicating that regional employers face similar challenges filling open positions as other employers in California.

*Exhibit 2: Job ads and time to fill*

Job Ads	Regional Average Time to Fill (Days)	Statewide Average Time to Fill (Days)
126	31	33

Source: Burning Glass – Labor Insights

## Earnings and Benefits

Community colleges should ensure their training programs lead to employment opportunities that provide self-sustainable income. The University of Washington estimates that a self-sufficient hourly rate for a single adult

with one school-age child is \$24.36 per hour or \$51,452 annually in Riverside County; \$23.73 per hour or \$50,119 annually in San Bernardino County (Pearce, 2021). For this study, the higher hourly earnings requirement in Riverside County is adopted as the self-sufficiency standard for the two-county region.

The median hourly earnings for surgical technologists surpass the self-sustainability standard, indicating that the top 50% of workers in the field earn a self-sustainable wage. Exhibit 3 displays the hourly earnings for surgical technologists.

Exhibit 3: Hourly earnings by percentile



Source: Emsi 2021.3

According to the occupational guides developed by the California Labor Market Information Division, benefits for surgical technologists generally include medical, dental, life, and vision insurance as well as vacation, sick leave, and retirement plans (Detailed Occupational Guides, 2021).

### Advertised Salary from Online Job Ads

Exhibit 4 displays online job ad salary data for surgical technologists over the last 12 months. Online job ad salary information reveals that employers are willing to pay surgical technologists a median annual salary of \$43,000, below the region's \$51,452 annual (\$24.36 hourly) self-sufficiency standard. Consider the salary information with caution since only 9% (11 out of 126) of online job advertisements for this occupation provided salary information. The salary figures are prorated to reflect full-time, annual earnings status.

Exhibit 4: Advertised salary information

Number of job ads	Real-Time Salary Information				Median Annual Salary
	Less than \$35,000	\$35,000 to \$49,999	\$50,000 to \$74,999	More than \$75,000	
11	33%	25%	25%	17%	\$43,000

Source: Burning Glass – Labor Insights

## Employers, Skills, Education, and Work Experience

Exhibit 5 displays the employers that posted three or more job ads for surgical technologists in the Inland Empire/Desert Region over the last 12 months. Showing employer names provides some insight into where students may find employment after completing a program. Desert Regional Medical Center, located in Palm Springs, posted the most job advertisements for surgical technologists over the last 12 months.

Exhibit 5: Employers posting the most job ads for surgical technologists

Top Employers	Job Ads
Desert Regional Medical Center	29
St. Bernardine Medical Center	10
Eisenhower Medical Center	9
John F Kennedy Memorial Hospital	7
Hi Desert Medical Center	6
Riverside Community Hospital	6
Medely	5
Loma Linda University Health	5
Inland Valley Medical Center	4
Redlands Community Hospital	3
Community Hospital of San Bernardino	3
All other employers	39
<b>Total</b>	<b>126</b>

Source: Burning Glass – Labor Insights

Exhibit 6 lists a sample of specialized and employability skills employers<sup>1</sup> seek when looking for workers to fill surgical technologist positions. Specialized skills are occupation-specific skills that employers request for industry or job competency. Employability skills are foundational skills that transcend industries and occupations; this category is often referred to as "soft skills." The skills requested in job ads may be utilized to guide curriculum development.

*Exhibit 6: Sample of in-demand skills from employer job ads*

Specialized skills (n=116)	Employability skills
<ul style="list-style-type: none"> <li>• Cleaning</li> <li>• Infection Control</li> <li>• Surgical Procedure</li> <li>• Aseptic Technique</li> <li>• Patient Care</li> </ul>	<ul style="list-style-type: none"> <li>• Communication Skills</li> <li>• Physical Abilities</li> <li>• Computer Literacy</li> <li>• Teamwork/Collaboration</li> <li>• Critical Thinking</li> </ul>

Source: Burning Glass – Labor Insights

According to the Bureau of Labor Statistics, approximately 73% of incumbent workers in this field hold a community college-level of educational attainment; "some college, no degree" and an "associate degree." All of the job advertisements for surgical technologists sought candidates with a high school diploma or vocational training. Exhibit 7 displays the typical entry-level education, educational attainment, and minimum advertised education requirements for surgical technologists.

*Exhibit 7: Typical entry-level education, educational attainment, and minimum advertised education requirements*

Typical Entry-Level Education Requirement	CC-Level Educational Attainment*	Number of Job Ads	Real-Time Minimum Advertised Education Requirement		
			High school or vocational training	Associate degree	Bachelor's degree or higher
Postsecondary nondegree award	73%	72	100%	-	-

Source: Emsi 2021.3, Burning Glass – Labor Insights

\*Percentage of incumbent workers with a Community College Award or Some Postsecondary Coursework

Exhibit 8 displays the work experience typically required and the real-time work experience requirements from employer job ads for surgical technologists. Most employers sought candidates with zero to two years of work experience.

*Exhibit 8: Work experience required and real-time work experience requirements*

Work Experience Typically Required	Real-Time Work Experience			
	Number of job ads	0 – 2 years	3 – 5 years	6+ years
None	88	83%	11%	6%

Source: Emsi 2021.3, Burning Glass – Labor Insights

The National Board of Surgical Technology and Surgical Assisting (NBSTSA) is the regulatory agency that issues surgical technologist certifications. The National Certifying Examination for Surgical Technologists ensures that prospective surgical technologists have the requisite knowledge and skills for entry-level surgical technologist positions. For more information about surgical technologist certification and requirements, visit the NBSTSA website (NBSTSA, 2021). Exhibit 9 displays the certifications required by employers posting job ads for surgical technologists in the Inland Empire/Desert Region.

*Exhibit 9: Certifications most frequently required by employers*

Certification (n=126)	Job Ads
Certified Surgical Technician (CST)	126
Basic Life Support (BLS)	121

Source: Burning Glass – Labor Insights

## Student Completions and Programs Outcomes

According to the Chancellor's Office Curriculum Inventory (COCI), community colleges do not currently offer surgical technician (TOP 1217.00) programs in the Inland Empire/Desert Region. Four community colleges in California currently offer surgical technician programs. Skyline College, located in San Bruno, offers an associate degree in Surgical Technology. Skyline College's program description may help with curriculum development (Skyline College, 2021):

Surgical Technologists are employed in hospitals, surgery centers, and physician's offices to deliver patient care before, during, and after surgery. Skyline's program combines academic and clinical instruction that includes learning to prepare surgical instruments, passing them to the surgeon, and handling specialized equipment. Graduates are eligible to take the national certification exam for Certified Surgical Technologist (CST). The Surgical Technology Program at Skyline College is accredited by the Commission on Accreditation of Allied Health Programs (CAAHEP).

California program outcome data may provide a useful insight into the likelihood of success for the proposed program. Community college student outcome information based on the selected TOP code and region is provided in Exhibit 10. Among the students exiting surgical technician programs in the state, 88% of students reported working in their field of study, the median annual earnings was \$45,888, and 55% attained a living wage. The outcome methodology is available in the appendix section of this report.

*Exhibit 10: 1217.00 – Surgical technician strong workforce program outcomes*

Strong Workforce Program Metrics: 1217.00 – Surgical Technician Academic Year 2018-19, unless noted otherwise	California
Unduplicated count of enrolled students (2019-20)	93
Completed 9+ career education units in one year (2019-20)	40%
Perkins Economically disadvantaged students	81%
Students who earned a degree, certificate, or attained apprenticeship (2019-20)	13
Job closely related to the field of study (2017-18)	88%
Median annual earnings (all exiters)	\$45,888

Strong Workforce Program Metrics: 1217.00 – Surgical Technician Academic Year 2018-19, unless noted otherwise		California
Median change in earnings (all exiters)		18%
Attained a living wage (completers and skills-builders)		55%

Sources: LaunchBoard Community College Pipeline and Strong Workforce Program Metrics

Exhibit 11 displays awards reported by other postsecondary education providers in surgical technology/technologist (CIP 51.0909) programs. Completion data is compiled from the Integrated Postsecondary Education Data System (IPEDS) for the most recent three years available. On average, four other postsecondary education institutions in the region have issued 123 awards annually over the last three academic years.

*Exhibit 11: Other educational provider surgical technology/technologist programs, three-year annual average credentials in the Inland Empire/Desert Region*

51.0909 – Surgical Technology/Technologist	Associate Degree	Award 1<2 Academic Years	Award 2<4 Academic Years	Other Educational Providers Annual Average Credentials, Academic Years 2016-19
American Career College – Ontario	57	-	-	57
American College of Healthcare and Technology	-	-	32	32
Concorde Career College – San Bernardino	-	15	-	15
North-West College – Riverside	-	-	18	18
<b>Total</b>	<b>57</b>	<b>15</b>	<b>50</b>	<b>123</b>

Source: IPEDS

## Recommendation

Community college surgical technician programs provide the knowledge, skills, and abilities that lead to the community college-level surgical technologist occupation. Employment for surgical technologists is expected to increase by 17% through 2025, with 98 job openings annually. This occupation's median hourly earnings surpass the regional self-sustainability rate, indicating that the top 50% of workers in this field earn a self-sustainable wage.

Regional colleges do not currently offer surgical technician (TOP 1217.00) programs. Among the students exiting surgical technician programs in the state, 88% of students reported working in their field of study, the median annual earnings was \$45,888, and 55% attained a living wage.



The Centers of Excellence recommends developing a surgical technician program to meet regional demand for surgical technologists. Colleges considering this program should partner with applicable employers to document their demand for surgical technologists and the skills needed for students to earn self-sustainable earnings after exiting the program.

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## Appendix: Methodology

Community college student outcome information is from LaunchBoard and based on the selected TOP code and region. These metrics are based on records submitted to the California Community Colleges Chancellor's Office Management Information Systems (MIS) by community colleges, which come from self-reported student information from CCC Apply and the National Student Clearinghouse. Employment and earnings metrics are sourced from California's Employment Development Department's Unemployment Insurance database records. When available, outcomes for completers are reported to demonstrate the impact that earning a degree or certificate can have on employment and earnings. For more information on the types of students included in each metric, please see the web link for LaunchBoard's Strong Workforce Program Metrics Data Element Dictionary in the References section (LaunchBoard, 2021 a). Finally, employment in a job closely related to the field of study comes from self-reported student responses on the CTE Employment Outcomes Survey (CTEOS), administered by Santa Rosa Junior College (LaunchBoard, 2021 a).

Job advertisement data is limited to the information provided by employers and the ability of artificial intelligence search engines to identify this information. Additionally, preliminary calculations by Georgetown Center on Education and the Workforce found that "just 30 to 40 percent of openings for candidates with some college or an associate degree, and only 40 to 60 percent of openings for high school diploma holders appear online" (Carnevale et al., 2014). Online job advertisements often do not reveal employers' hiring intentions; it is unknown if employers plan to hire one or multiple workers from a single online job ad or collect resumes for future hiring needs. A closed job ad may not be the result of a hired worker.

Table 1. 2020 to 2025 job growth, wages, entry-level education, training, and work experience required for surgical technologists in the Inland Empire/Desert Region (Riverside and San Bernardino counties combined)

Occupation (SOC)	2020 Jobs	5-Year Change (New Jobs)	5-Year % Change (New Jobs)	Annual Openings (New + Replacement Jobs)	Entry-Experienced Hourly Wage (10 <sup>th</sup> to 90 <sup>th</sup> percentile)	Median Hourly Wage (50 <sup>th</sup> percentile)	Average Annual Earnings	Entry-Level Education & On-The-Job-Training	Work Experience Required
Surgical Technologists (29-2055)	860	147	17%	98	\$18.00 to \$37.80	\$27.22	\$56,900	Postsecondary nondegree award & None	None

Source: Emsi 2021.3