

Surgical Technologists and Medical Equipment Preparers

Inland Empire/Desert Region (Riverside-San Bernardino-Ontario Metropolitan Statistical Area)

Summary

- Employment for surgical technologists and medical equipment preparers is expected to increase by 22% through 2022. **More than 1,000 job openings** will be available over the five-year timeframe in the Inland Empire/Desert Region.
- The entry-level wage for surgical technologists and medical equipment preparers is **above the MIT Living Wage estimate of \$12.30 per hour** for a single adult living in the Inland Empire/Desert Region.
- Based on the average annual number of program completions for the selected community college programs (**185 average annual other awards**), and the annual openings for surgical technologists and medical equipment preparers in the local region (**204 annual job openings**), labor market demand appears to be nearly met by private institutions.

Introduction

The two occupations included in this report are listed below along with their definition/description, sample job titles, education and training requirements, as well as the community college educational attainment of workers within each occupation:

- Surgical Technologists
- Medical Equipment Preparer

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 surgeon's assistants, hold retractors, cut sutures, and help count sponges, needles, supplies, and instruments.

Sample job titles: Certified Surgical Tech/First Assistant, 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

Training Requirement: None

Percentage of incumbent workers with a Community College Award or Some Postsecondary Coursework: 56%

Medical Equipment Preparers (31-9093)

Prepare, sterilize, install, or clean laboratory or healthcare equipment. May perform routine laboratory tasks and operate or inspect equipment.

Sample job titles: Central Processing Technician (CPT), Central Service Technician (CST), Central Sterile Supply Technician (CSS Technician), Certified Registered Central Service Technician (CRCST), Instrument Technician, Sterile Preparation Technician, Sterile Processing and Distribution Technician (SPD Technician), Sterile Processing Technician, Sterile Technician, Sterilization Technician

Entry-Level Educational Requirement: HS diploma or equivalent

Training Requirement: One to twelve months on-the-job training

Percentage of incumbent workers with a Community College Award or Some Postsecondary Coursework: 40%

Job Opportunities

In 2017, there were nearly 1,400 surgical technologists and medical equipment preparers jobs in the Inland Empire/Desert Region. This occupational group is projecting an increase in employment of

22% by 2022. Employers in the region will need to hire more than 1,000 workers over the next five years to fill new jobs and backfill jobs that workers are vacating (includes permanent job changes and retirements). Exhibit 1 shows the projected growth for both occupations.

Exhibit 1: Five-year projections for surgical technologists and medical equipment preparers in the Inland Empire/Desert Region

Occupation	2017 Jobs	5-Yr % Change (New Jobs)	5-Yr Openings (New + Replacement Jobs)	Annual Openings (New + Replacement Jobs)	% of workers age 55+
Surgical Technologists	856	24%	572	114	13%
Medical Equipment Preparers	537	18%	449	90	20%
Total	1,393	22%	1,022	204	16%

Source: EMSI 2017.4

Over the last 12 months (March 2017 to February 2018), there were 343 advertisements (ads) for surgical technologists and medical equipment preparers jobs in the Inland Empire/Desert Region. In the full-year 2017, there were 405 job ads; 430 job ads in 2016; 257 job ads in 2015; and 198 job ads in 2014. Exhibit 2 shows the number of job ads posted during the last 12 months for each of these occupations.

Exhibit 2: Job ads for surgical technologists and medical equipment preparers in the Inland Empire/Desert Region during the last 12 months, Mar 2017 – Feb 2018

Occupation	Job Ads
Surgical Technologists	228
Medical Equipment Preparers	115
TOTAL	343

Source: Burning Glass – Labor Insights

Earnings

The entry-level wage for both occupations is above the MIT Living Wage estimate for a single adult living in the Inland Empire/Desert Region (\$12.30 per hour or \$25,584 annually). These wages are Surgical Technologists and Medical Equipment Preparers in the Inland Empire/Desert Region, March 2018



also sufficient for an adult living in a household with one other working adult and one child (\$14.50 per hour, per adult or \$30,160 annually for each adult). See Exhibit 3 for wage information for the two-county region.

Exhibit 3: Earnings for surgical technologists and medical equipment preparers in the Inland Empire/Desert Region

Occupation	Entry to Experienced Hourly Earnings Range*	Median Wage*	Avg. Annual Earnings
Surgical Technologists	\$20.19 to \$30.53	\$23.98	\$53,200
Medical Equipment Preparers	\$16.49 to \$26.34	\$21.14	\$44,800

Source: EMSI 2017.4

*Entry Hourly is 25th percentile wage, the median is 50th percentile wage, experienced is 75th percentile wage.

Work Locations, Employers, Skills, Education, and Certifications

Loma Linda University Health/Hospital has posted the most job ads for both occupations over the last 12 months. Exhibit 4 displays the top employers posting job ads over the last 12 months as well as the top regional cities with postings for each occupation.

Exhibit 4: Top skills in highest demand for surgical technologists and medical equipment preparers in the Inland Empire/Desert Region, Mar 2017 – Feb 2018

Occupation	Top Employers	Top Work Locations
Surgical Technologists	<ul style="list-style-type: none"> • Loma Linda University Health/Hospital • St. Joseph Health System • Kaiser Permanente • Universal Health Services, Inc. • Hospital Corporation of America 	<ul style="list-style-type: none"> • Loma Linda • Riverside • Apple Valley • Joshua Tree • Ontario • Upland
Medical Equipment Preparers	<ul style="list-style-type: none"> • Loma Linda University Health/Hospital • Riverside Health Care • Arrowhead Regional Medical Center • Baptist Health • Kaiser Permanente • San Bernardino County 	<ul style="list-style-type: none"> • Loma Linda • Colton • Palm Springs • Riverside • San Bernardino • Upland

Source: Burning Glass – Labor Insights

Exhibit 5 lists the top specialized, soft, and software and programming skills that employers are seeking when looking for workers to fill these occupations.

Exhibit 5: Top skills in highest demand for surgical technologists and medical equipment preparers in the Inland Empire/Desert Region, Mar 2017 – Feb 2018

Occupation	Specialized skills	Soft skills	Software and Programming skills
Surgical Technologists (n=165)	<ul style="list-style-type: none"> • Surgery • Patient Care • Operating Room Experience • Aseptic Technique 	<ul style="list-style-type: none"> • Communication Skills • English • Writing • Mathematics 	<ul style="list-style-type: none"> • Microsoft Office
Medical Equipment Preparers (n=101)	<ul style="list-style-type: none"> • Sterile Procedures/Techniques • Patient Care • Cleaning • Surgical Instruments 	<ul style="list-style-type: none"> • English • Detail-Oriented • Communication Skills • Writing 	<ul style="list-style-type: none"> • Microsoft Excel • Microsoft PowerPoint

Source: Burning Glass – Labor Insights

Exhibit 6 displays the entry-level education level education typically required to enter each occupation according to the Bureau of Labor Statistics. The U.S. Census supplies educational attainment for incumbent workers with “some college, no degree” and an “associate degree.” The minimum advertised education requirement requested by employers is from online job ads.

Exhibit 6: Educational attainment and online job ads with minimum advertised education requirements for surgical technologists and medical equipment preparers in the Inland Empire/Desert Region, Mar 2017 – Feb 2018

Occupation	Typical Entry-Level Education Requirement	Educational Attainment (Percentage of incumbent workers with a Community College Award or Some Postsecondary Coursework)	Minimum Advertised Education Requirement from Job Ads			
			Number of Job Postings (n=)	High school diploma or vocational training	Associate degree	Bachelor's degree or higher
Surgical Technologists	Postsecondary nondegree award	56%	114	87%	13%	-
Medical Equipment Preparers	High school diploma or equivalent	40%	71	100%	-	-

Source: EMSI 2017.4, Current Population Survey, Burning Glass – Labor Insights

Exhibit 7 displays the top certifications required by employers posting job ads for surgical technologists and medical equipment preparers in the Inland Empire/Desert Region.

Exhibit 7: Top certifications required by employers in the Inland Empire/Desert Region, Mar 2017 – Feb 2018

Occupation	Certifications
Surgical Technologists (n=113)	<ul style="list-style-type: none"> • Basic Cardiac Life Support Certification • Certified Surgical Technologist
Medical Equipment Preparers (n=30)	<ul style="list-style-type: none"> • International Association of Healthcare Central Service Materiel Management (IAHCSMM)

Source: Burning Glass – Labor Insights

Industry

Exhibit 6 displays the industries that employ the most surgical technologists and medical equipment preparers in the two-county region. Staffing patterns show the industries that employ the most workers of a specific occupation.

Exhibit 9: Top Industries employing surgical technologists and medical equipment preparers the Inland Empire/Desert Region, Mar 2017 – Feb 2018 for job ads

Occupation	Top Industries from Staffing Pattern (NAICS)	Industry Classification from Job Ads	
		Number of Job Postings (N=)	Top Industries from Job Ads (NAICS)
Surgical Technologists	<ul style="list-style-type: none"> • General Medical and Surgical Hospitals (6221) • Outpatient Care Centers (6214) 	139	<ul style="list-style-type: none"> • General Medical and Surgical Hospitals (6221)
Medical Equipment Preparers	<ul style="list-style-type: none"> • General Medical and Surgical Hospitals (6221) • Outpatient Care Centers (6214) 	100	<ul style="list-style-type: none"> • General Medical and Surgical Hospitals (6221)

Source: EMSI 2017.4, Burning Glass – Labor Insights

Student Completions

Exhibit 10 shows the annual average awards granted outside the California Community Colleges from 2013-2016, with the relevant TOP and CIP codes. Please note an award is not equivalent to a single person in search of a job opening since a student may earn more than one award, such as an associate degree in addition to a certificate. No California Community Colleges in the Inland Empire/Desert Region currently offer surgical technician programs.

Exhibit 10: Annual average community college student completions for surgical technician programs in the Inland Empire/Desert Region (TOP/CIP)

TOP: 1217.00 – Surgical Technician CIP: 51.0909 – Surgical Technology/Technologist	Other Educational Institutions Annual Average Certificates or Other Credit Awards (2013-16)
American Career College-Ontario	
Associate Degree	60
American College of Healthcare	
Award 2 < 4 academic yrs	62
Concorde Career College-San Bernardino	
Award 1 < 2 academic yrs	23
North-West College-Riverside	
Award 2 < 4 academic yrs	6
Award 1 < 2 academic yrs	5
Summit College	
Award < 1 academic yr	29
Total Other Annual Average Awards	185

Source: LaunchBoard, IPEDS

1217.00 – Surgical Technician program outcomes in the Inland Empire/Desert Region in the academic year 2014-15:

- Number of course enrollments: N/A (California median: 156)*
- Number of students who transferred to a 4-year institution: N/A (CA: 1)
- Employed in the second fiscal quarter after exit: N/A (CA: 86%)
- Median earnings in the second fiscal quarter after exit: N/A (CA: \$12,140)
- Employed in the fourth fiscal quarter after exit: N/A (CA: 80%)
- Median annual earnings: N/A (CA: \$43,560)
- The percentage of students in a job closely related to the field of study: N/A (CA: 92%)
- Median change in earnings: N/A (CA: 69%)
- The proportion of students who attained a living wage: N/A (CA: 61%)

*academic year 2015-16

Surgical Technologists and Medical Equipment Preparers in the Inland Empire/Desert Region, March 2018



Sources

O*Net Online

Labor Insight/Jobs (Burning Glass)

Economic Modeling Specialists International (EMSI)

CTE LaunchBoard

Statewide CTE Outcomes Survey

Employment Development Department Unemployment Insurance Dataset

Living Insight Center for Community Economic Development

California Community Colleges Chancellor's Office Management Information Systems (MIS)

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March 2018