

Anesthesia Technologist

Inland Empire/Desert Region (Riverside and San Bernardino counties, IEDR) and Los Angeles & Orange counties combined (LA/OC)

Introduction

This report aims to determine the demand for *anesthesia technologists* in the Inland Empire/Desert region (IEDR) and Los Angeles & Orange counties (LA/OC). *Anesthesia technologists* assist anesthesiologists and certified registered nurse anesthetists with the administration of anesthesia and monitoring of patients and typically work in operating rooms, intensive care units (ICUs), or outpatient surgery clinics. These jobs are for highly trained individuals with a deep understanding of anesthesia techniques, instruments, dosages, and technology (Pasadena City College, 2020).

The Federal Standard Occupation Classification (SOC) system has yet to establish an occupational code specifically for *anesthesia technologists*. Federal occupational research classifies the *anesthesia technologist* job title within the emerging anesthesiologist assistants occupation (SOC 29-1071.01). Traditional labor market data do not fully capture employer demand for *anesthesiologist assistant* occupation because it is emerging. This report approximates demand for *anesthesia technologists* by utilizes an online job posting search for the anesthesiologist assistants occupation, with filters applied to only display results for the *anesthesia technologists* job title.

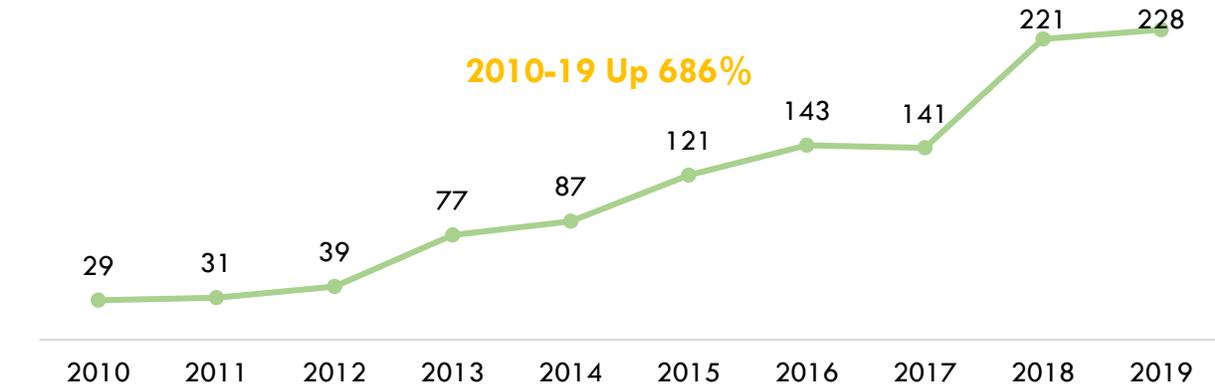
The Taxonomy of Programs (TOP), developed by the California Community Colleges Chancellor's Office, does not contain a TOP code that directly provides *anesthesia technologists* training. Despite this, three community colleges in the state provide training associated with this occupation, with only one college providing an accredited program. More information regarding these programs is provided in the [anesthesia technologists program](#) section of this report.

Job Postings

Job posting data provides real-time insight into employer demand for job titles and emerging occupations. Over the last 12 months, there were 203 online job postings for *anesthesia technologists* in the combined four-county, IEDR and LA/OC area. The LA/OC region contained the majority or nearly 73% (148 job postings) of the combined area's job postings. Please see the appendix section of this report for notes on the limitations of examining online job postings alone as a proxy for employer demand.

Exhibit 1 displays a 686% increase in the number of online job postings for *anesthesia technologists* in the combined LA/OC and IEDR area between 2010 and 2019. Nearly 62% of online job postings growth was recorded over the last two years, between 2017 and 2019.

Exhibit 1: Anesthesia technologists job ads in the combined IEDR & LA/OC area, 2010 – 2019



Source: Burning Glass – Labor Insights

This report's subsequent sections focus on *anesthesia technologists* job postings over the last 12 months, September 2019 to August 2020. Year-over, there were 203 job postings for anesthesia technologists in the four-county area, 135 job ads were posted in 2020 alone.

Employers

Exhibit 2 displays the employers posting the most *anesthesia technologist* job ads during the last 12 months in the combined four-county region. Low desert employers, Eisenhower Medical Center, John F. Kennedy Memorial Hospital, and Desert Regional Medical Center, are included in the table below despite not posting the most job advertisements in the region.

Exhibit 2: Employers posting the most anesthesia technologists job ads in IEDR & LA/OC area, Sep 2019 – Aug 2020

Employers (Cities)	Job Ads
Kaiser Permanente (Gardena, Los Angeles, Fontana, Moreno Valley)	21
Loma Linda University Medical Center (Loma Linda)	15
University of California, Irvine (UCI) (Irvine, Orange)	14
Dignity Health - California Hospital Medical Center (Los Angeles)	7
Cedars-Sinai Medical Center (Los Angeles)	7
University of California, Los Angeles (UCLA) Health	7
John F. Kennedy Memorial Hospital (Indio)	2
Eisenhower Medical Center (Rancho Mirage)	1
Desert Regional Medical Center (Palm Springs)	0

Employers (Cities)	Job Ads
All other employers	129
Total	203

Source: Burning Glass – Labor Insights

Skills

Exhibit 3 displays a sample of specialized and employability skills that employers seek to fill *anesthesia technologist* positions. Occupation-specific specialized skills are abilities that employers are requesting for industry or job competency. Employability skills are foundational skills that transcend industries and occupations; this category is commonly referred to as "soft skills." The skills requested in job postings may be utilized as a helpful guide for curriculum development. The skills information provided in the table below aligns with the online job postings found for Eisenhower Medical Center and John F. Kennedy Memorial Hospital.

Exhibit 3: Sample of in-demand skills from employer job ads, Sep 2019 – Aug 2020

Job Title	Specialized Skills	Employability Skills
Anesthesia Technologists (n=189)	<ul style="list-style-type: none"> • Patient Care • Life Support • Patient Monitoring • Equipment Maintenance • Sterile Procedures/Techniques 	<ul style="list-style-type: none"> • English • Teamwork/Collaboration • Communication Skills • Troubleshooting • Organizational Skills

Source: Burning Glass – Labor Insights

Educational Attainment and Work Experience

Exhibit 4, on the next page, displays the minimum advertised education requirement from employer job ads. The majority of employers are seeking *anesthesia technologists* with a high school diploma or vocational training. The John F. Kennedy Memorial Hospital sought candidates with at least their high school diploma or equivalent, while the Eisenhower Medical Center preferred candidates with an associate degree.

Exhibit 4: Minimum advertised education requirements for anesthesia technologists, Sep 2019 – Aug 2020

Job Title	Number of Job Ads (n=)	High school diploma or vocational training	Bachelor's degree or higher
Anesthesia Technologists	96	97%	3%

Source: Burning Glass – Labor Insights

Exhibit 5 displays real-time work experience requirements. Over the last twelve months, most employers sought *anesthesia technologists* with less than two years of previous work experience. Over this period, the

Eisenhower Medical Center sought candidates with at least one (1) year of work experience as an anesthesia technician, while the John F. Kennedy Memorial Hospital did not include a desired level of work experience.

Exhibit 5: Real-time work experience requirements, Sep 2019 – Aug 2020

Job Title	Number of job postings	0 – 2 years	3 – 5 years	6+ years
Anesthesia Technologists	123	86%	12%	2%

Source: Burning Glass – Labor Insights

Certifications

About 54% (110 out of 203) of *anesthesia technologist* job ads did not include certification information. Of the 93 job postings with certification information, about 67% (62 job postings) sought individuals with their Basic Life Support (BLS) certification from the American Heart Association. While many job advertisements did not include certification information, it is common for individuals to obtain their Certified Anesthesia Technologist (Cer.A.T.T.) certification from the American Society of Anesthesia Technologists and Technicians (ASATT). The Cer.A.T.T. certification requires that students complete an accredited training program and then pass the certification exam. For more information regarding the ASATT certification, please visit their website (ASATT, 2020). The John F. Kennedy Memorial Hospital did not include certification information in their job postings, while the Eisenhower Medical Center sought candidates with their Certified Anesthesia Technician Certification and American Heart Association BLS.

Salary

Exhibit 6, on the next page, displays advertised salary data from *anesthesia technologist* job postings over the last 12 months. Advertised salary information reveals that employers are willing to pay *anesthesia technologists* \$66,000 annually, which is above the \$42,114 (\$19.94 hourly) required annual for a family of one adult, with a school-age child, to be self-sufficient in Riverside County (\$41,162 annually in San Bernardino County). Consider the salary information with caution since only 19% (40 out of 203) online job postings provided salary information. The salary figures are prorated to reflect full-time, annual wage status. The low desert medical institutions in the region, Eisenhower Medical Center and John F. Kennedy Memorial Hospital did not include salary information in their job postings.

Exhibit 6: Advertised salary information, Sep 2019 – Aug 2020

Job Title	Number of job postings	Less than \$35,000	\$35,000 to \$49,999	\$50,000 to \$74,999	More than \$75,000	Average Annual Salary
Anesthesia Technologists	40	5%	20%	55%	20%	\$66,000

Source: Burning Glass – Labor Insights

Anesthesia Technologists Programs

A review of a program inventory, developed by the Center of Excellence and the 12 IEDR colleges, found no regional colleges offer anesthesia technology programs. A review of the Chancellor's Office Curriculum Inventory (COCI) and college catalogs found three (3) community colleges in the state offer anesthesia technology programs; Grossmont College, Pasadena City College, and Skyline College. Of these programs, only Pasadena City College offers an ASATT accredited program that trains students for the certified anesthesia technologist (Cer.A.T.T.) certification. The program description for Pasadena's anesthesia technology program and accreditation information, which may be helpful in program development, is displayed below (Pasadena City College, p. 120):

The Anesthesia Technology program prepares the student to be an integral member of the anesthesia patient care team. Emphasis is on fundamental and advanced clinical procedures to assist licensed anesthesia providers in the acquisition, preparation, and application of various types of equipment required for the delivery of anesthesia care. Anesthesia technicians are integral members of the anesthesia patient care team. Their role is to assist licensed anesthesia providers in the acquisition, preparation, and application of various equipment required for the delivery of anesthesia care. This may be performed in a variety of clinical settings such as: the operating room, interventional and diagnostic radiology, post-anesthesia care unit, intensive care unit, cardiac cath lab, emergency room, endoscopy, dental suites, and ambulatory surgery centers. Job responsibilities may include equipment maintenance and servicing such as cleaning, sterilizing, assembling, calibrating, testing, troubleshooting, and recording of inspections and maintenance. In addition, the anesthesia technician will assist licensed anesthesia providers with patient assessments, evaluations, transport, positioning, insertion of intravenous and other invasive lines, and airway management.

Upon successful completion of the program, the student is eligible to take the American Society of Anesthesia Technicians/Technologists (ASATT) National Certification Examination to become certified as an Anesthesia Technician (Cer.A.T.T.) Highlights of the PCC program include professional, experienced academic and clinical instructors, and a multitude of clinical sites with state-of-the-art technology and hands-on instruction. The Anesthesia Technician program is a partnership program with Kaiser Permanente.

Recommendation

Traditional labor market data is not available for *anesthesia technologists*; online job postings were analyzed to provide insight into employer demand for this job title. In the IEDR and LA/OC area combined, there were 203 online job postings for this job over the last 12 months. About 73% of the online job postings were from employers located in the LA/OC area. Wage data was limited, but about 20% of employers advertised an average annual salary of \$66,000, exceeding the annual self-sufficiency standard of \$42,144 in the local region. Most employers were seeking a candidate with a high school or

vocational training. Colleges in the IEDR do not currently offer anesthesia technology programs; three (3) colleges in the state offer this program.

There appears to be an opportunity to invest in anesthesia technology programs based on the increasing demand for more workers and self-sustainable wages from online job postings. Additionally, the colleges should consider the limitations of job posting data and the limited number of job posting results for this occupation in the IEDR compared to the LA/OC area. The COE recommends colleges considering an *anesthesia technologist* program partner with the community colleges currently offering to this program to gain insight on where their students are finding gainful employment. Colleges should work closely with relevant local employers to understand their demand for more workers. Additionally, colleges should ensure exiting students have the certifications, knowledge, skills, and abilities needed to earn an annual salary that exceeds the \$42,114 self-sufficiency standard in the region. Colleges looking to prepare students for the ASATT certification should ensure that their program is accredited by the Committee on Accreditation for Anesthesia Technology Education (CoA-ATE).

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Appendix

Occupation Definition and Sample Job Titles

Anesthesiologist Assistant (29-1071.01): Assist anesthesiologists in the administration of anesthesia for surgical and non-surgical procedures. Monitor patient status and provide patient care during surgical treatment.

Sample of Reported Job Titles: Anesthesia Assistant, Anesthesia Technologist, Anesthesia Technician, Anesthesia Tech, Anesthesiologist Assistant, Anesthesiologist Assistant-Certified, Anesthesiologists' Assistant, Cardiothoracic Anesthesia Technician, Certified Anesthesia Technician and Technologist, Oral Surgery Assistant, Oral Surgery Assistant-Clinical Coordinator

Data Notes

Job postings 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 postings often do not reveal the hiring intentions of employers; it is unknown if employers plan to hire one or multiple workers from a single online job posting, or if they are collecting resumes for future hiring needs. A closed job posting may not be the result of a hired worker.