

# LABOR MARKET ANALYSIS

FOR PROGRAM RECOMMENDATION



C·O·E

CENTERS OF EXCELLENCE  
FOR LABOR MARKET RESEARCH

## SURGICAL TECHNOLOGISTS IN THE FAR NORTH

Far North  
Center of Excellence

NOVEMBER 2022

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## SUMMARY

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The Far North Center of Excellence for Labor Market Research prepared this report to provide a labor market analysis of educational supply and occupational demand for middle-skilled career pathways in the Far North subregion. This report aims to determine if demand in the local labor market is unmet by the supply from existing community college programs and other postsecondary training providers.

This report primarily focuses on training that leads to jobs in middle-skilled occupations - jobs that typically require education beyond a high school diploma but less than a Bachelor's degree - but may include higher-skilled occupations for training pathways that lead to a bachelor's degree. Lowered skilled occupations are rarely considered in this analysis due to the lessened barriers for entry-level work, such as no formal education and on-the-job training requirements.

Key findings include:

- The Far North held 204 surgical technologist jobs in 2021. Surgical technologist jobs are projected to increase by 10% over the next five years, adding 24 new jobs to the subregion by 2026.
- Over the next five years, surgical technologist jobs are projected to have 26 annual openings in the Far North subregion.
- Wage data shows that surgical technologists earn \$12 to \$23 above the subregion's living wage of \$12.74 per hour. Wages for surgical technologists are above the living wage for a small family.
- Awards data analysis shows that no Far North training providers have conferred awards (certificates and associate degrees) in surgical technician programs over the last three academic years.

Recommendations include:

- The Far North Center of Excellence recommends moving forward with the program.

# INTRODUCTION

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The Far North Center of Excellence (COE) was asked to provide labor market information for a proposed program at a regional community college. This report focuses on the following Standard Occupational Classification (SOC) occupation and codes:

- This middle-skill occupation requires more education and training beyond a high school diploma but less than a four-year degree:
  - Surgical Technologist (29-2055)

A review of related programs revealed the following Taxonomy of Programs (TOP) title(s) and code(s) are appropriate for inclusion in this report:

- Surgical Technician (1217.00)

The corresponding Classification of Instructional Program (CIP) title(s) and code(s) are:

- Surgical Technology/Technologist (51.0909)

# OCCUPATIONAL DEMAND

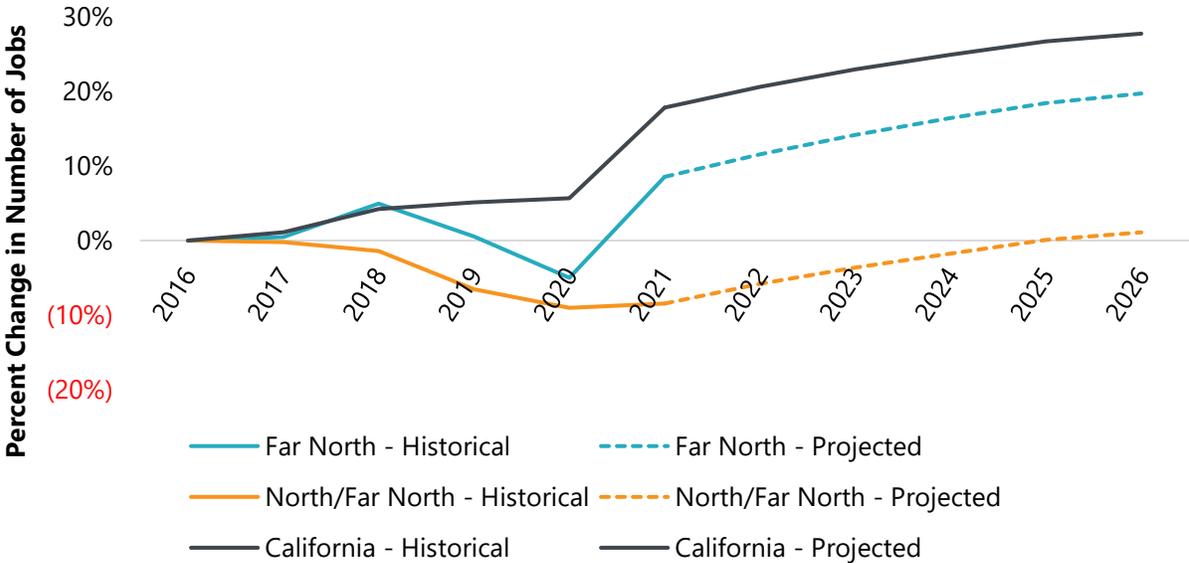
Exhibit 1 summarizes the five-year projected job growth for surgical technologists in the Far North, North/Far North, and California.

**Exhibit 1. Employment and projected demand, 2021-2026**

Region	2021 Jobs	2026 Jobs	2021-2026 Change	2021-2026 % Change	2021-2026 Annual Openings
Far North	230	254	24	10%	26
North/Far North	890	983	93	10%	85
California	11,631	12,609	979	8%	1,127

Exhibit 2 compares the percent change in jobs between 2016 through 2021 and the projected changes through 2026. The rate of change is indexed to the total number of jobs in 2016.

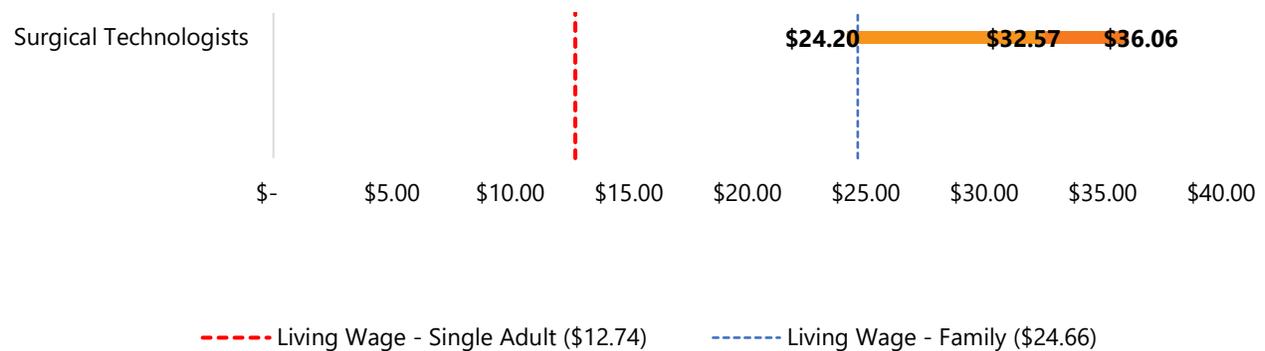
**Exhibit 2. Changes in employment, 2016-2026**



# WAGES

Exhibit 3 compares the entry-level, median, and experienced wages for the selected occupation to the Far North living wage for a single adult (\$12.74 per hour) and a small family<sup>1</sup> (\$24.66 per hour).

**Exhibit 3. Comparison of wages by occupation, 2021**



# JOB POSTINGS

This section analyzes recent data from online job postings (real-time LMI). Online job postings may provide additional insight into recent changes in the labor market that are not captured by historical trends.

The Far North COE identified 429 online job postings for the selected occupation in the 15-county Far North subregion. Job posting data comes from Burning Glass Labor Insights and represents new listings posted online within the last year, from November 1, 2021, to October 31, 2022.

## Occupations and Job Titles

Exhibit 4 details the number of online job postings for the selected occupation.

**Exhibit 4. Number of job postings by occupation**

Occupation	Job Postings	Share of Job Postings
Surgical Technologist	429	100%
<b>Total Job Postings</b>	<b>429</b>	<b>100%</b>

<sup>1</sup> A small family is defined as a single adult and one school aged child (between the ages of 5 and 12 years).

Exhibit 5 shows the top 10 job titles with the most job postings and the share. All job postings included a job title.

### Exhibit 5. Top jobs titles

Job Title	Job Postings	Share of Job Postings
Surgical Technician	49	11%
Certified Surgical Technologist	34	8%
Surgical Technologist	25	6%
Travel Or Technician Surgical Technician	16	4%
Surgical Technician, Surgery	12	3%
Surgical Technologist Surgical Technician	11	3%
Surgical Technician/Operating Room Or	9	2%
Cardiac Surgical Technologist Cvor/Cst/Travel	7	2%
Surgical Scrub Technician	7	2%
Labor & Delivery Surgical Technologist Cst/Travel	6	1%

### Employers

Exhibit 6 shows the top 10 employers with the most job postings for the selected occupation. Fifty-nine percent (n= 255) of job postings did not include an employer.

### Exhibit 6. Employers with the most job postings

Employer	Job Postings	Share of Job Postings
Sutter Health	16	9%
Saint Joseph Hospital	9	5%
Emerald Health Services	8	5%
Dignity Health	8	5%
Banner Health System	8	5%
Adventist Health	8	5%

Employer	Job Postings	Share of Job Postings
Healthcare Employment Network, LLC	7	4%
Sutter Medical Center	6	3%
Prn Healthcare	6	3%
Fortus Healthcare Resources	6	3%

## Certifications, Skills, and Experience

Exhibit 7 shows the most relevant certifications requested by employers for the selected occupation. Forty-three percent (n= 183) of job postings did not include certification information.

### Exhibit 7. Most in-demand certifications

Certification	Job Postings	Share of Job Postings
Certified Surgical Technician	164	67%
Basic Cardiac Life Support Certification	96	39%
Basic Life Saving (BLS)	94	38%
First Aid Cpr Aed	27	11%
American Heart Association Certification	13	5%

Exhibit 8 shows the top 10 skills across three categories for the studied occupation: specialized, human-centered, and technical skills.

### Exhibit 8. Most in-demand specialized skills

Top 10 Specialized Skills	Top 10 Human-Centered Skills	Top 10 Technical Skills
Surgical Technician	Building Effective Relationships	Microsoft Excel
Surgery	Organizational Skills	Microsoft Office
Surgical Technology	Communication Skills	Microsoft Word
Surgical Procedure	Physical Abilities	Word Processing

Top 10 Specialized Skills	Top 10 Human-Centered Skills	Top 10 Technical Skills
Aseptic Technique	Teamwork / Collaboration	n/a
Surgical Instruments	Detail-Oriented	n/a
Patient Care	Planning	n/a
Cardiopulmonary Resuscitation (CPR)	Problem Solving	n/a
Sterile Procedures / Techniques	Computer Literacy	n/a
Life Support	English	n/a

Exhibit 9 shows employers' minimum level of education for job postings for the selected occupation. Seventy-seven percent (n= 330) of job postings did not include a preferred education level.

**Exhibit 9. Employer-preferred minimum education levels**

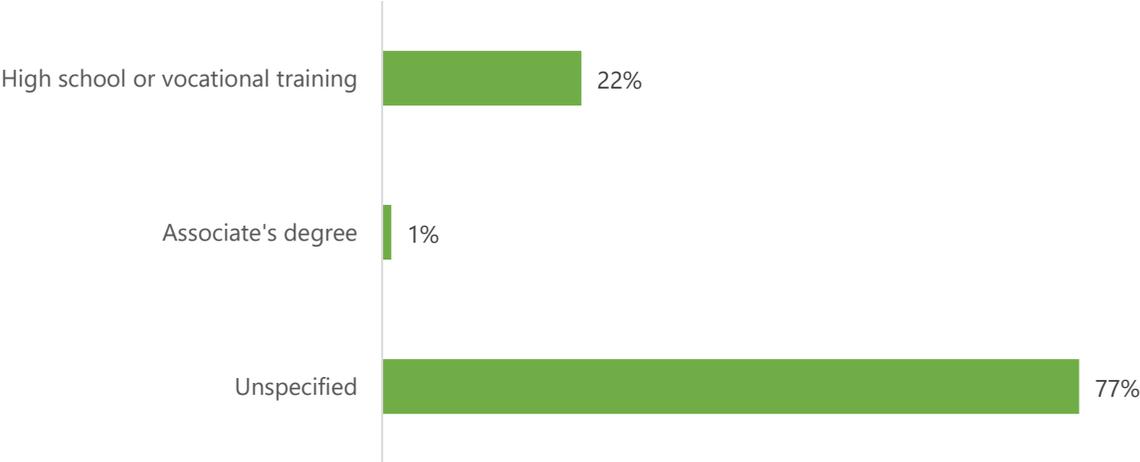
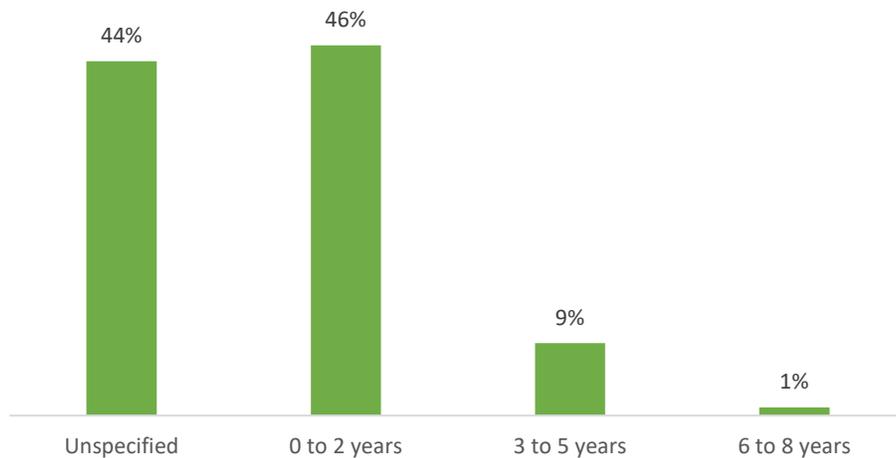


Exhibit 10 shows the experience levels required by employers for job postings for the selected occupation. Forty-four percent (n= 188) of job postings did not include a preferred experience level.

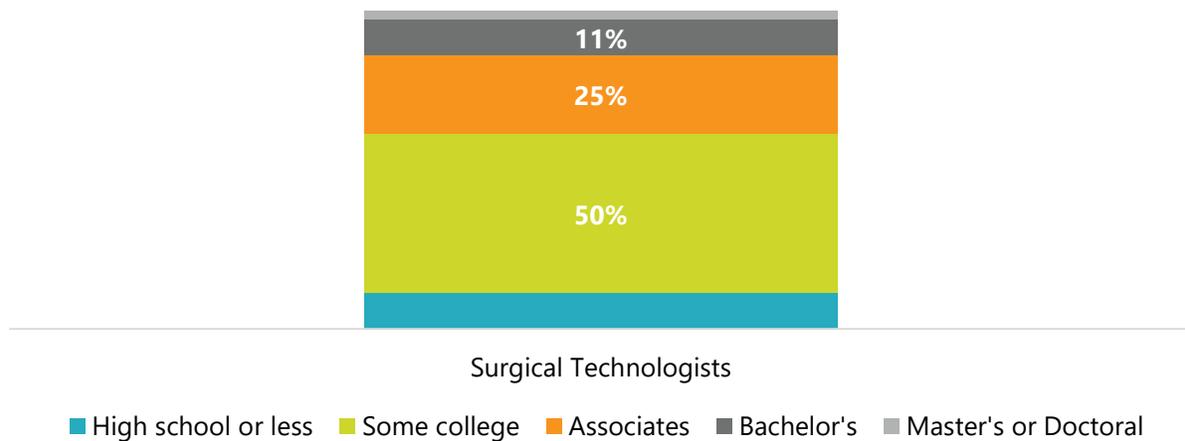
**Exhibit 10. Employer-preferred experience levels**



## EDUCATION AND TRAINING

The U.S. Census Bureau collects data on education achieved by workers employed in occupations. Exhibit 11 shows the state-level educational attainment of the current workforce in the selected occupation.

**Exhibit 11. California worker educational attainment for selected occupation, 2019**



The Bureau of Labor Statistics (BLS) uses a system to assign categories for entry-level education, work experience in a related occupation, and typical on-the-job training to each occupation for which the BLS publishes projections data. Exhibit 12 shows the selected occupation's entry-level job requirements.

**Exhibit 12. Typical education, work experience, and on-the-job training requirements**

Occupation	Typical Entry-level Education	Work Experience Required	On-the-job Training Required
Surgical Technologist	Postsecondary nondegree award	None	None

## EDUCATIONAL SUPPLY

Educational supply for an occupation can be estimated by analyzing the number of awards issued in related Taxonomy of Programs (TOP) or Classification of Instructional Programs (CIP) codes. Exhibit 13 shows the TOP and CIP codes for educational programs related to the selected occupations.

**Exhibit 13. TOP and CIP codes for training programs related to the selected occupations**

TOP Programs and Codes	Aligned CIP Programs and Codes
Surgical Technician (1217.00)	Surgical Technology/Technologist (51.0909)

### Community College Supply

No Far North community colleges have conferred awards in the related TOP code over the last three academic years.

### Other Postsecondary Supply

No other (non-community college) training providers conferred awards in the related CIP code over the last three academic years. Please note that non-community college data typically lags by one year.

## FINDINGS

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- This report focuses on one occupation: surgical technologists.
- The Far North subregion held 230 surgical technologist jobs in 2021. These jobs are projected to increase by 10% over the next five years, adding 24 new jobs to the subregion by 2026.
- Jobs for surgical technologists are projected to grow at the same rate in the Far North subregion as in California.
- Over the next five years, surgical technologist jobs are projected to have 26 annual openings across the Far North.
- Wage data shows that surgical technologists earn \$12 to \$23 above the subregion's living wage of \$12.74 per hour. Entry-level wages for surgical technologists are near the living wage for a small family.
- According to real-time labor market information, there were 429 online job postings for surgical technologists between November 1, 2021 and October 31, 2022. Sixty-seven percent of employers who indicated a skills preference listed certified surgical technologist.
- Seventy-five percent of surgical technologists have educational attainment levels consistent with community college offerings (some college or associate degrees). Another 11% of workers in this occupation hold a bachelor's degree.
- No Far North community colleges offer degrees and certificates in programs related to psychiatric technicians over the last three academic years (2018-19 through 2020-21).
- No local non-community college postsecondary training providers offered training related to the studied occupations over the last three years. Please note that non-community college awards data often lags by one year.

# RECOMMENDATIONS

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- Based on a three-year average of annual awards in the Far North, surgical technologist programs and projected yearly openings, the supply gap analysis shows that the region seems to have room for additional training.
  - Community colleges and other postsecondary training providers have issued zero awards over the last three years.
  - There are 26 projected annual openings for surgical technologists.
- The Far North Center of Excellence recommends moving forward with the program.

New Program Recommendation		
<b>Move forward with the new program</b>	<b>Proceed with caution</b>	<b>A new program is not recommended</b>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

## APPENDIX A. METHODOLOGY AND SOURCES

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This report identified Occupations using the Center of Excellence TOP-to-CIP-to-SOC crosswalk and O\*Net OnLine. This report's findings were determined using labor market data from the Bureau of Labor Statistics (BLS), U.S. Census Bureau data from Emsi, and jobs posting data from Burning Glass.

Lightcast (Formerly EMSI/Burning Glass) 2022.4; QCEW Employees, Non-QCEW Employees, and Self-Employed. <https://www.economicmodeling.com/>. *Note: EMSI occupational employment data are based on final EMSI industry data and final EMSI staffing patterns. Wage estimates are based on Occupational Employment Statistics (QCEW and Non-QCEW Employees classes of worker) and the American Community Survey (Self-Employed and Extended Proprietors).*

Integrated Postsecondary Education Data System (IPEDS). National Center for Education Statistics. U.S. Department of Education. <https://nces.ed.gov/ipeds/>.

Labor Market Information Division. California Employment Development Department. <https://labormarketinfo.edd.ca.gov/>.

Management Information Systems (MIS) Data Mart. California Community Colleges Chancellor's Office. <https://datamart.cccco.edu/>.

O\*NET OnLine. U.S. Department of Labor/Employment and Training Administration (DOL ETA). <https://www.onetonline.org/>.

Public Use Microdata Sample (PUMS). U.S. Census Bureau American Community Survey (ACS). <https://www.census.gov/programs-surveys/acs/microdata.html>

Self-Sufficiency Standard Tool for California. The University of Washington. <http://www.selfsufficiencystandard.org/>

"Taxonomy of Programs." California Community Colleges Chancellor's Office. June 2012, 6<sup>th</sup> Edition. <https://www.cccco.edu/-/media/CCCCO-Website/About-Us/Divisions/Educational-Services-and-Support/Academic-Affairs/What-we-do/Curriculum-and-Instruction-Unit/Files/TOPmanual6200909corrected12513pdf.ashx>

"TOP-CIP-SOC Crosswalk." Centers of Excellence for Labor Market Research. June 2021 Edition. <http://coecc.net/>

## APPENDIX B. GLOSSARY OF KEY TERMS

Key Terms	Definition
<b>Occupation</b>	Occupation refers to professions, or careers, in the workforce. Occupations differ from jobs in that jobs show the number of positions held in a given occupation.
<b>Jobs</b>	<p>A job is any position where a worker provides labor for monetary compensation.</p> <p>Job numbers include employees (those who work for businesses) and proprietors (those who work for themselves). Full- and part-time jobs are included and counted equally (i.e., not adjusted to full-time equivalents). Data for jobs, or employment, are annual averages.</p>
<b>Job Change</b>	Job change is the net increase or decrease of jobs over a given timeframe.
<b>Job Openings</b>	<p>Job openings are the projected number of positions available for workers entering an occupation.</p> <p>Openings include growth and replacement jobs. Growth jobs are the positive change in the total number of workers employed. Replacement jobs are the estimates of new workers needed to replace workers permanently leaving the occupation.</p>
<b>Wages</b>	Wages, or compensation, show workers' percentile and average earnings in a given occupation. The 25th-percentile and 75th-percentile hourly wages are used as a proxy for entry-level and experienced-level wages.
<b>Living Wage</b>	The living wage is the level of income a single adult with no children must earn to meet basic needs. The living wage is calculated using basic levels of allowances for food, housing, transportation, healthcare, taxes, and other miscellaneous basic needs.
<b>Educational Attainment</b>	Educational attainment is the level of education achieved by workers in a given occupation. The data includes workers aged 25 years and older.
<b>Typical Entry-level Education</b>	The education level generally required for employment in an occupation. It may differ from the actual educational levels attained by workers in any given occupation.
<b>Work Experience Required</b>	The level of prior experience a worker needs to enter a job in a given occupation.
<b>On-the-job Training Required</b>	The level of on-the-job training a worker needs to obtain competency in a given occupation.
<b>Awards</b>	Awards are the number of certificates and degrees conferred for a specific course of study in a given year. Awards counts "papers" and, as a result, may be greater than the actual number of students who complete a program.

**COVID-19 Statement:** This report includes employment projection data by EMSI. EMSI's projections are modeled on recorded (historical) employment figures and incorporate several underlying assumptions, including the assumption that the economy during the projection period will be at approximately full employment or potential output. To the extent that a recession or labor shock, such as the economic effects of COVID-19, can cause long-term structural change, they may impact the projections. At this time, it is not possible to quantify the impact of COVID-19 on projections of industry and occupational employment. Other measures such as unemployment rates and monthly industry employment estimates will reflect the most recent information on employment and jobs in the state and, in combination with input from local employers, may help validate current and future employment needs as depicted here.

**Important Disclaimer:** All representations included in this report have been produced from primary research and/or secondary review of publicly and/or privately available data and/or research reports. Efforts have been made to qualify and validate the accuracy of the data and the reported findings; however, neither the Centers of Excellence, COE host District, nor California Community Colleges Chancellor's Office are responsible for applications or decisions made by recipient community colleges or their representatives based upon components or recommendations contained in this study.

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