



Computer Numerically Controlled Tool Operators (TOP 0956.00)

March 2024

Prepared by the South Central Coast Center of Excellence for
Labor Market Research

Program Recommendation

This report was compiled by the South Central Coast¹ Center of Excellence to provide regional labor market data for the program recommendation – Machine Operation. This report can help determine whether there is demand in the local labor market that is not being met by the supply from programs of study that align with this occupation group.

Key Findings

- In 2022, there were 1,043 jobs for Computer Numerically Controlled Tool Operators in the South Central Coast Region.
- This number is expected to decrease by 2% through 2027.
- Projections show approximately 100 annual openings in the region. There were 18 awards conferred in relevant programs, indicating an undersupply.
- The typical entry-level education for Computer Numerically Controlled Tool Operators is a high school diploma or equivalent.

¹ The South Central Coast Region consists of San Luis Obispo County, Santa Barbara County, Ventura County, and the following cities from North Los Angeles County: Canyon Country, Castaic, Lake Hughes, Lancaster, Littlerock, Llano, Newhall, Palmdale, Pearblossom, Santa Clarita, Stevenson Ranch, and Valencia.

Occupation Codes and Descriptions

There is one occupation in the standard occupational classification (SOC) system that was identified as related to machine operation for this analysis. The occupation title and description, as well as reported job titles, are included in Exhibit 1.

Exhibit 1 – Occupation, Description, and Sample Job Titles

SOC Code	Title	Description	Sample of Reported Job Titles
51-9161	Computer Numerically Controlled Tool Operators	Operate computer-controlled tools, machines, or robots to machine or process parts, tools, or other work pieces made of metal, plastic, wood, stone, or other materials. May also set up and maintain equipment.	CNC Gear Operator (Computer Numerical Control Gear Operator), CNC Lathe Operator (Computer Numerical Control Lathe Operator), CNC Machine Operator (Computer Numerical Control Machine Operator), CNC Machinist (Computer Numerical Control Machinist), CNC Mill Operator (Computer Numerical Control Mill Operator), CNC Operator (Computer Numerical Control Operator), CNC Set Up Operator (Computer Numerical Control Set Up Operator), Machine Operator, Machine Set Up Operator, Machinist

Source: O*NET Online

Current and Future Employment

In the South Central Coast region, the number of jobs for Computer Numerically Controlled Tool Operators is expected to decrease 2% through 2027. However, approximately 100 annual openings are expected through 2027.

Exhibit 2 – Five-Year Projections for Computer Numerically Controlled Tool Operators in the South Central Coast Region

SOC	Occupation	2022 Jobs	2027 Jobs	2022-2027 Change	2022-2027 % Change	Annual Openings
51-9161	Computer Numerically Controlled Tool Operators	1,043	1,018	(25)	(2%)	99

Source: Lightcast™ Analyst 2023

Earnings

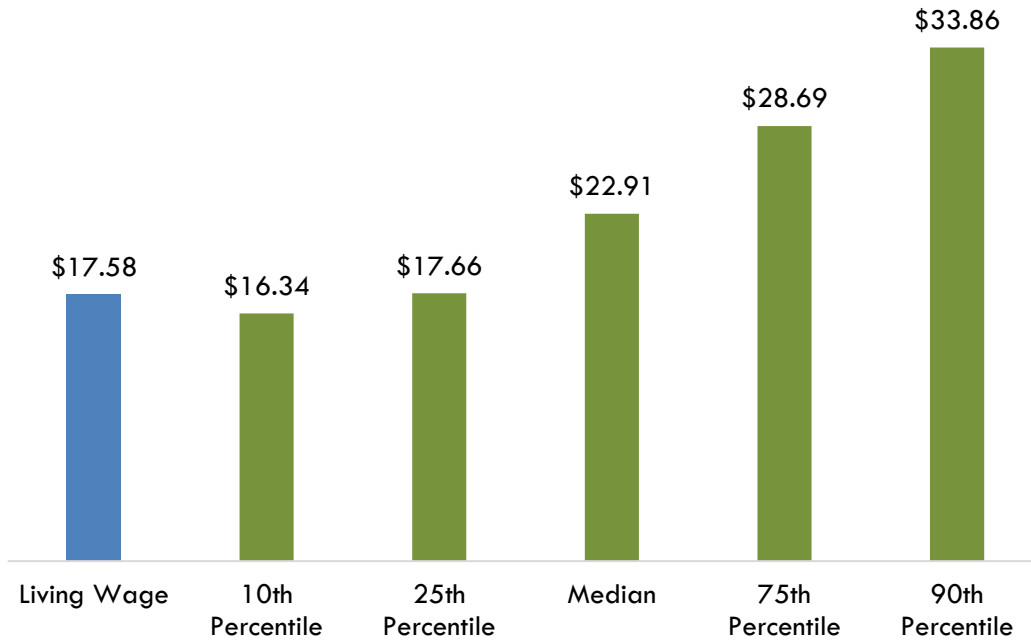
Exhibit 3 contains hourly wages and annual average earnings for this occupation. Entry-level hourly earnings are represented by the 25th percentile of wages, median hourly earnings are represented by the 50th percentile of wages, and experienced hourly earnings are represented by the 75th percentile of wages, demonstrating various levels of employment.

Exhibit 3 – Earnings for Computer Numerically Controlled Tool Operators in the South Central Coast Region

SOC	Occupation	Entry-Level Hourly Earnings	Median Hourly Earnings	Experienced Hourly Earnings
51-9161	Computer Numerically Controlled Tool Operators	\$17.66	\$22.91	\$28.69

Source: Lightcast™ Analyst 2023

Exhibit 3b – Earnings for Computer Numerically Controlled Tool Operators in the South Central Coast Region



Source: Family Needs Calculator (Living wage is based on Single Adult households with no children); Lightcast™ Analyst 2023

Employer Job Postings

In this research brief, real-time labor market information is used to provide a more nuanced view of the current job market, as it captures job advertisements for the occupation relevant to the field of study. Employer job postings are consulted to understand who is looking for professionals in a given field, and what they are looking for in potential candidates. To identify relevant job postings, the following standard occupational classifications was used:

51-9161 Computer Numerically Controlled Tool Operators

Top Occupations

In 2023, there were 228 employer postings for Computer Numerically Controlled Tool Operators.

Exhibit 4 – Top Occupations by Job Postings

SOC Code	Occupation	Job Postings, Full Year 2023
51-9161	Computer Numerically Controlled Tool Operators	228
	Total	228

Source: Lightcast™ Analyst 2023

Top Titles

The top job titles for employers posting ads for Computer Numerically Controlled Tool Operators are listed in Exhibit 5. CNC Machine Operators is mentioned as the job title in 100 job postings.

Exhibit 5 – Job Titles

Title	Job Postings, Full Year 2023
CNC Machine Operators	100
Machine Operators	32
CNC Operators	21
CNC Lathe Operators	19
CNC Mill Operators	17
Lead CNC Programmers	16
CNC Operators/Machinists	15
CNC Set Up Operators	11

Source: Lightcast™ Analyst 2023

Top Employers

Exhibit 6 lists the major employers hiring professionals in the field of interest. The top employer posting job ads was Acara Solutions. The top worksite cities for these occupations were Camarillo, Thousand Oaks, Oxnard, Simi Valley, and Santa Maria.

Exhibit 6 – Top Employers

Employer	Job Postings, Full Year 2023
Acara Solutions	24
Volt	20
Aerotek	18
Aerojet Rocketdyne	17
Smith Precision Products	16
Karl Storz	16
Express Employment Professionals	13
Innova Solutions USA	12

Source: Lightcast™ Analyst 2023

Skills

The tables in Exhibit 7 list employers' most commonly requested skills in job postings related to machine operation. Computer Numerical Control (CNC) is the most sought-after specialized skill for employers. Operations was the most requested baseline skill. SAP Applications was the most requested software and programming skill.

Exhibit 7 – Specialized Skills

Skills	Job Postings, Full Year 2023
Computer Numerical Control (CNC)	141
CNC Machining	126
Machining	82
Lathes	68
Machine Operation	62
Tooling	59
Metal Lathes	53
Mills	46
Micrometer	44
Calipers	43

Source: Lightcast™ Analyst 2023

Exhibit 7b – Baseline Skills

Skills	Job Postings, Full Year 2023
Operations	53
Management	41
Detail Oriented	40
English Language	37
Mathematics	30
Lifting Ability	23
Communication	23
Loading and Unloading	22
Troubleshooting	19
Problem Solving	15

Source: Lightcast™ Analyst 2023

Exhibit 7c – Software and Programming Skills

Skills	Job Postings, Full Year 2023
SAP Applications	7
Microsoft Excel	4
Document-Oriented Databases	4
SolidWorks (CAD)	3
Database Systems	2

Source: Lightcast™ Analyst 2023

Education and Training

Exhibit 8 shows the typical entry-level education requirement for Computer Numerically Controlled Tool Operators, along with the typical on-the-job training needed to attain competency in the occupation.

Exhibit 8 – Education and Training Requirements

SOC	Occupation	Typical entry-level education	Typical on-the-job training
51-9161	Computer Numerically Controlled Tool Operators	High school diploma or equivalent	Moderate-term

Source: Bureau of Labor Statistics Employment Projections (Educational Attainment)

Regional Completions and Openings

Between 2019 and 2022, there were 18 awards conferred in the South Central Coast region aligned with programs related to the occupation of interest in this report.

Exhibit 9 – Three-Year Average of Awards Conferred in the Region

TOP/CIP Code	Program	3-Year Average (2019-2022)
0956.00	Manufacturing and Industrial Technology	18
1506.13	Manufacturing Engineering Technology/Technician	-
48.0501	Machine Tool Technology/Machinist	-
	Average	18

Source: Datamart and IPEDS

CCC Awards

Exhibit 10 shows the average number of awards granted by community colleges within programs historically dedicated to training for Computer Numerically Controlled Tool Operators.

Exhibit 10 – CCC Awards in the South Central Coast Region, 2019-2022 Average

CCC Programs	3-Year Average
Antelope Valley	8
Canyons	9
Ventura	1

Source: DataMart, 2023

Sources

O*Net Online, Lightcast™ Analyst 2023, MIT Living Wage Calculator, Bureau of Labor Statistics (BLS) Education Attainment, California Community Colleges Chancellor's Office Management Information Systems (MIS) Data Mart, CTE LaunchBoard, Statewide CTE Outcomes Survey, Employment Development Department Unemployment Insurance Dataset

Notes

Data included in this analysis represent the labor market demand for relevant positions most closely related to Machine Operation. Traditional labor market information was used to show current and projected employment based on data trends, as well as annual average awards granted by regional community colleges. Real-time labor market information captures job post advertisements for occupations relevant to the field of study and can signal demand and show what employers are looking for in potential employees, but is not a perfect measure of the quantity of open positions. All representations have been produced from primary research and/or secondary review of publicly and/or privately available data and/or research reports. The most recent data available at the time of the analysis was examined; however, data sets are updated regularly and may not be consistent with previous reports. Efforts have been made to qualify and validate the accuracy of the data and findings; however, neither the Centers of Excellence for Labor Market Research (COE), COE host district, nor California Community Colleges Chancellor's Office are responsible for the applications or decisions made by individuals and/or organizations based on this study or its recommendations.