



## Aeronautical and Aviation Technology (TOP: 0950.00)

October 2021

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

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### Program Recommendation

This report was compiled by the South Central Coast<sup>1</sup> Center of Excellence to provide regional labor market data for the program recommendation – Aeronautical and Aviation Technology. 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 (CCC and non-CCC) that align with this occupation group.

### Key Findings

- In the South Central Coast region, the number of jobs related to Aeronautical and Aviation Technology are expected to **remain steady** for Non-Destructive Testing Specialists.
- Aeronautical and Aviation Technology is anticipated to experience a **low risk of automation** for Non-Destructive Testing Specialists.
- In 2020 there were 37 regional completions in programs related to the occupation identified as related to Aeronautical and Aviation Technology and 104 openings, indicating an **undersupply**.
- Typical entry-level education is an **Associate's degree** for Non-Destructive Testing Specialists.
- **Median annual wage** upon completion of \$49,482.
- 82% of students are **employed within a year** after completing a program.
- 79% of students **attained a living wage** within a year of completion.
- +75% **change in earnings** for completers.
- 56% of students were **part time**, 16% **skill builders**, 51% **first-generation**, and 89% **economically disadvantaged**.

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<sup>1</sup> 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 Aeronautical and Aviation Technology 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**

<b>SOC Code</b>	<b>Title</b>	<b>Description</b>	<b>Sample of Reported Job Titles</b>
17-3029.01	<b>Non-Destructive Testing Specialists</b>	Test the safety of structures, vehicles, or vessels using x-ray, ultrasound, fiber optic or related equipment.	Industrial Radiographer, Non-Destructive Evaluation Technician (NDE Tech), Non-Destructive Testing Specialist (NDT Specialist), Non-Destructive Testing Technician (NDT Technician)

Source: O\*NET Online

## Current and Future Employment

In the South Central Coast region, the number of jobs related to Aeronautical and Aviation Technology are expected to remain steady for Non-Destructive Testing Specialists.

**Exhibit 2 – Five-year projections for Aeronautical and Aviation Technology in the South Central Coast region**

SOC	Occupation	2020 Jobs	2025 Jobs	2020-2025 Change	2020-2025 % Change
17-3098 (for 17-3029.01)	<b>Calibration Technologists and Technicians and Engineering Technologists and Technicians, Except Drafters, All Other (for Non-Destructive Testing Specialists)</b>	986	1,006	20	2%

Source: Economic Modeling Specialists International (EMSI)

## Earnings

In the South Central Coast region, the average wage for the listed occupation is \$35.30 per hour.

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

**Exhibit 3 – Earnings for Aeronautical and Aviation Technology in the South Central Coast region**

SOC	Occupation	Entry-Level Hourly Earnings	Median Hourly Earnings	Experienced Hourly Earnings
17-3098 (for 17-3029.01)	<b>Calibration Technologists and Technicians and Engineering Technologists and Technicians, Except Drafters, All Other (for Non-Destructive Testing Specialists)</b>	\$26.81	\$35.30	\$44.98

Source: Economic Modeling Specialists International (EMSI)

## 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 occupations relevant to the field of study. Employer job postings are consulted to understand who is looking for non-destructive testing specialists, and what they are looking for in potential candidates. To identify job postings related to Aeronautical and Aviation Technology the following standard occupational classification was used:

11-3011 Non-Destructive Testing Specialists

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## Top Occupations

In 2019, there were 27 employer postings for the occupation related to Aeronautical and Aviation Technology.

**Exhibit 4 – Top occupations in job postings and risk of automation tables**

SOC Code	Occupation	Job Postings, Full Year 2019
17-3029.01	<b>Non-Destructive Testing Specialists</b>	27

Source: Labor Insight/Jobs (Burning Glass)

SOC Code	Occupation	Risk of Automation
17-3029.01	<b>Non-Destructive Testing Specialists</b>	Low

Source: Labor Insight/Jobs (Burning Glass)

### Top Titles

The top job titles for employers posting ads for jobs related to Aeronautical and Aviation Technology are listed in Exhibit 5. Non-destructive Test Inspector Senior is mentioned as the job title in 15% of all relevant job postings (4 postings).

**Exhibit 5 –Job Titles**

<b>Title</b>	<b>Job Postings, Full Year 2019</b>
Non-destructive Test Inspector Senior	4
NDT Inspector	3
Non-destructive Test Technician	3
NDT Technician	2
Non-destructive Test Engineer Senior	2

Source: Labor Insight/Jobs (Burning Glass)

### Top Employers

Exhibit 6 lists the major employers hiring professionals in the Aeronautical and Aviation Technology field. The top employer posting job ads was Lockheed Martin. The top worksite cities in the region for this occupation were Palmdale, Simi Valley, Santa Clarita, Camarillo, and Oxnard.

**Exhibit 6 – Top Employers (n=158)**

<b>Employer</b>	<b>Job Postings, Full Year 2019</b>
Lockheed Martin	7
Northrop Grumman	6
Meggitt PLC	4
Triad	2
Arete Technologies Inc	1

Source: Labor Insight/Jobs (Burning Glass)

**Skills**

Nondestructive Testing is the most sought after skill for employers hiring for jobs related to Aeronautical and Aviation Technology.

**Exhibit 7 –Job Skills (n=20)**

Skills	Job Postings, Full Year 2019
Nondestructive Testing (NDT)	24
Network Attached Storage (NAS)	16
Radiography	14
Calibration	9
X-Rays	6
Engineering Specifications	5
Test Equipment	5

Source: Labor Insight/Jobs (Burning Glass)

**Industry Concentration**

Exhibit 8 shows the industries with most Aeronautical and Aviation Technology postings in the South Central Coast. Note: 6% of records have been excluded because they do not include an industry. As a result, the chart below may not be representative of the full sample.

**Exhibit 8 – Industries employing the most in the Aeronautical and Aviation Technology field, 2019**

Industry	Occupation Group Jobs in Industry	% of Occupation Group in Industry
Manufacturing	21	91.3%
Administrative and Support and Waste Management and Remediation Services	2	8.7%

Source: Labor Insight/Jobs (Burning Glass)

## Education and Training

Exhibit 9 shows the typical entry-level education requirement for the occupation of interest, along with the typical on-the-job training needed to attain competency in the occupation.

**Exhibit 9 – Education and Training Requirements**

SOC	Occupation	Typical entry-level education	Typical on-the-job training
17-3029.01	<b>Non-Destructive Testing Specialists</b>	Associate's degree	None

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

## Regional Completions and Openings

There were 37 regional completions (2020) and 104 regional openings (2020) in the South Central Coast region in programs related to the occupation identified as related to Aeronautical and Aviation Technology.

**Exhibit 10 – Completions and Openings**

<b>3</b> Regional Institutions had Related Programs (2020)	<b>37</b> Regional Completions (2020)	<b>104</b> Annual Openings (2020)
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Source: Economic Modeling Specialists International (EMSI)

## Related Programs

CIP Code	Program	Completions (2020)
47.0105	Industrial Electronics Technology/Technician	33
15.0000	Engineering Technologies/Technician, General	3
15.9999	Engineering/Engineering-Related Technologies/Technicians, Other	1

Source: Economic Modeling Specialists International (EMSI)

## Student Outcomes

The CTE LaunchBoard provides student outcome data on the effectiveness of CTE programs. The following student outcome information was collected from current students and exiters of regional Aeronautical and Aviation Technology programs (TOP: 0950.00) for the 2017-18 academic year.

- **Median annual wage** upon completion of \$49,482.
- 82% of students are **employed within a year** after completing a program.
- 79% of students **attained a living wage** within a year of completion.
- +75% **change in earnings** for completers.
- 56% of students were **part time**, 16% **skill builders**, 51% **first-generation**, and 89% **economically disadvantaged**.

Source: CTE LaunchBoard

## Sources

O\*Net Online, Labor Insight/Jobs (Burning Glass), Economic Modeling Specialists International (EMSI), 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 Aeronautical and Aviation Technology. 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.