



Aircraft Fabrication

April 2021

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

Program Recommendation – South Central Coast Region and Los Angeles County

This report was compiled by the South Central Coast¹ Center of Excellence to provide regional labor market data for the program recommendation – Aircraft Fabrication. 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 and Los Angeles County, the number of jobs related to Aircraft Fabrication are expected to **increase** for Aircraft Mechanics and Service Technicians and **decrease** for Aircraft Structure, Surfaces, Rigging, and Systems Assemblers.
- Aircraft Fabrication is anticipated to experience a **medium risk of automation** for Aircraft Mechanics and Service Technicians, and a **high risk** for Aircraft Structure, Surfaces, Rigging, and Systems Assemblers.
- In 2019 there were 493 completions, regional and Los Angeles County, in programs related to the occupations identified as aligned with Aircraft Fabrication and 646 openings, indicating an **undersupply**.
- Typical entry-level education is a **high school diploma or equivalent** for Aircraft Structure, Surfaces, Rigging, and Systems Assemblers, and a **postsecondary nondegree award** for Aircraft Mechanics and Service Technicians.
- Completers of Aircraft Fabrication programs in the South Central Coast Region, from the 2017-2018 academic year, had a **median annual wage upon completion of \$49,462**.
- 85% of students are **employed within a year** after completing a program. (regional)
- 79% of students **attained a living wage** within a year of completion. (regional)
- +77% **change in earnings** for completers. (regional)
- 61% of students were **part time**, 17% **skill builders**, 51% **first-generation**, and 89% **economically disadvantaged**. (regional)

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 are two occupations in the standard occupational classification (SOC) system that were identified as related to Aircraft Fabrication 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
49-3011	Aircraft Mechanics and Service Technicians	Diagnose, adjust, repair, or overhaul aircraft engines and assemblies, such as hydraulic and pneumatic systems.	Aircraft Maintenance Technician (Aircraft Maintenance Tech), Aircraft Mechanic, Aircraft Restorer, Aircraft Technician, Airframe and Powerplant Mechanic (A&P Mechanic), Aviation Maintenance Technician (AMT), Aviation Mechanic, Helicopter Mechanic
51-2011	Aircraft Structure, Surfaces, Rigging, and Systems Assemblers	Assemble, fit, fasten, and install parts of airplanes, space vehicles, or missiles, such as tails, wings, fuselage, bulkheads, stabilizers, landing gear, rigging and control equipment, or heating and ventilating systems.	A&P Technician, Aircraft Line Assembler, Assembler, Assembly Riveter, Helicopter Technician, Sheet Metal Assembler and Riveter (SMAR), Sheet Metal Mechanic, Structures Mechanic, Structures Technician

Source: O*NET Online

Current and Future Employment

In the South Central Coast Region and Los Angeles County, the number of jobs related to Aircraft Fabrication are expected to increase for Aircraft Mechanics and Service Technicians and decrease for Aircraft Structure, Surfaces, Rigging, and Systems Assemblers.

Exhibit 2 – Five-year projections for Aircraft Fabrication in the South Central Coast and Los Angeles County

SOC	Occupation	2019 Jobs	2024 Jobs	2019-2024 Change	2019-2024 % Change
49-3011	Aircraft Mechanics and Service Technicians	6,256	6,614	358	6%
51-2011	Aircraft Structure, Surfaces, Rigging, and Systems Assemblers	1,333	1,215	-118	-9%

Source: Economic Modeling Specialists International (EMSI)

Earnings

In the South Central Coast Region and Los Angeles County, the average wage for the listed occupations is \$32.14 per hour. Exhibit 3 contains hourly wages and annual average earnings for these occupations. 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 Aircraft Fabrication in the South Central Coast and Los Angeles County

SOC	Occupation	Entry-Level Hourly Earnings	Median Hourly Earnings	Experienced Hourly Earnings
49-3011	Aircraft Mechanics and Service Technicians	\$25.64	\$34.01	\$43.00
51-2011	Aircraft Structure, Surfaces, Rigging, and Systems Assemblers	\$15.91	\$21.57	\$31.70

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 those in aircraft fabrication, and what they are looking for in potential candidates. To identify job postings related to Aircraft Fabrication the following standard occupational classifications were used:

49-3011	Aircraft Mechanics and Service Technicians
51-2011	Aircraft Structure, Surfaces, Rigging, and Systems Assemblers

Top Occupations

In 2019, there were 1,558 employer postings for the occupations related to Aircraft Fabrication.

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

SOC Code	Occupation	Job Postings, Full Year 2019
51-2011	Aircraft Structure, Surfaces, Rigging, and Systems Assemblers	1,049
49-3011	Aircraft Mechanics and Service Technicians	509

Source: Labor Insight/Jobs (Burning Glass)

SOC Code	Occupation	Risk of Automation
51-2011	Aircraft Structure, Surfaces, Rigging, and Systems Assemblers	High
49-3011	Aircraft Mechanics and Service Technicians	Medium

Source: Labor Insight/Jobs (Burning Glass)

Top Titles

The top job titles for employers posting ads for jobs related to Aircraft Fabrication are listed in Exhibit 5. Service Expert is mentioned as the job title in 4% of all relevant job postings (67 postings).

Exhibit 5 –Job titles

Title	Job Postings, Full Year 2019
Service Expert	67
Assembler II	39
Service Expert Seasonal	32
Assembler I	30
A&P Mechanic	28

Source: Labor Insight/Jobs (Burning Glass)

Top Employers

Exhibit 6 lists the major employers hiring professionals in the Aircraft Fabrication field. The top employer posting job ads was Northrop Grumman. The top worksite cities in the region for these occupations were Los Angeles, Palmdale, Torrance, Camarillo, and Long Beach.

Exhibit 6 – Top employers (n=1,009)

Employer	Job Postings, Full Year 2019
Northrop Grumman	81
Lockheed Martin Corporation	35
Advantage Sales & Marketing	31
Teledyne Technologies	23

Source: Labor Insight/Jobs (Burning Glass)

Skills

Repair is the most sought after skill for employers hiring for jobs related Aircraft Fabrication.

Exhibit 7 –Job skills (n=1,275)

Skills	Job Postings, Full Year 2019
Repair	524
Hand Tools	359
Soldering	285
Power Tools	216
Schematic Diagrams	165
Screwdrivers	129
Test Equipment	128

Source: Labor Insight/Jobs (Burning Glass)

Industry Concentration

Exhibit 8 shows the industries with the most Aircraft Fabrication postings in the South Central Coast Region and Los Angeles County. Note: 34% 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 Aircraft Fabrication field, 2019

Industry	Occupation Group Jobs in Industry	% of Occupation Group in Industry
Manufacturing	591	57.0%
Arts, Entertainment, and Recreation	124	12.0%
Professional, Scientific, and Technical Services	100	9.6%
Public Administration	55	5.3%
Transportation and Warehousing	50	4.8%

Source: Labor Insight/Jobs (Burning Glass)

Education and Training

Exhibit 9 shows the typical entry-level education requirement for the occupations 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
49-3011	Aircraft Mechanics and Service Technicians	Postsecondary Nondegree Award	None
51-2011	Aircraft Structure, Surfaces, Rigging, and Systems Assemblers	High school diploma or equivalent	Moderate-term on-the-job training

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

Regional Completions and Openings

There were 493 regional completions (2019) and 646 regional openings (2019) in the South Central Coast Region and Los Angeles County in programs related to the occupations identified as related to Aircraft Fabrication.

Exhibit 10 – Completions and Openings

3 Regional Institutions had Related Programs (2019)	493 Regional Completions (2019)	646 Annual Openings (2019)
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Source: Economic Modeling Specialists International (EMSI)

Related Programs

CIP Code	Program	Completions (2019)
47.0607	Airframe Mechanics and Aircraft Maintenance Technology/Technician	382
47.0608	Aircraft Powerplant Technology/Technician	111
01.0205	Agricultural Mechanics and Equipment/Machine Technology	0

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 Aircraft Fabrication programs (TOP: 0950.50) for the 2017-18 academic year.

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- 85% of students are **employed within a year** after completing a program. (regional)
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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 Aircraft Fabrication. 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.