

Aircraft Electronics and Avionics Technology Occupational Group

California and the Riverside-San Bernardino-Ontario Metropolitan Statistical Area (Riverside and San Bernardino counties combined)

Job Opportunities

In 2016, there were nearly 16,800 aircraft electronics and avionics technology jobs in California. About 6% or 1,025 of these job opportunities were located in the Riverside-San Bernardino-Ontario MSA. Across the local region, aircraft electronics and avionics technology occupational employment is projected to increase by 13% through 2021; growing faster than California overall at 8%. Local employers will need to hire nearly 270 more new and replacement aircraft electronics and avionics technology workers over the next five years (includes retirements).

Exhibit 1: Five-year projections for the aircraft electronics and avionics technology occupational group in the Riverside-San Bernardino-Ontario MSA and California

Region	2016 Jobs	2021 Jobs	5-Yr Change	5-Yr % Change	5-Yr Openings (New + Replacement Jobs)	Annual Openings (New + Replacement Jobs)
Riverside-San Bernardino-Ontario MSA	1,025	1,156	131	13%	265	53
California	16,759	18,167	1,408	8%	3,468	694

Earnings

The combined average entry-level wage for this occupational group is \$16.99, above the MIT Living Wage estimate of \$12.10 per hour for a single adult living in the Riverside-San Bernardino-Ontario MSA. The average annual earnings for this occupational group in the region is \$65,200 per year, assuming full-time employment. The combined average entry-level hourly wage in California is \$18.14 per hour, above the living wage of \$13.21 for the state. Hourly wages and annual average earnings for each occupation in this group within the Riverside-San Bernardino-Ontario MSA can be found in Appendix A.

Exhibit 2: Average earnings for the aircraft electronics and avionics technology occupational group in the Riverside-San Bernardino-Ontario MSA and California

Region	Entry to Experienced Hourly Earnings Range*	Avg. Annual Earnings
Riverside-San Bernardino-Ontario MSA	\$16.99 to \$52.86	\$65,200
California	\$18.14 to \$44.32	\$64,400

*Entry Hourly is 10th percentile wage, experienced is 90th percentile wage.

Job Ads, Top Employers, Skills, and Education in the Local Region

In 2016, there were a total of 54 job advertisements (ads) for the aircraft electronics and avionics technology occupational group in the Riverside-San Bernardino-Ontario MSA. There were 83 job ads for the same group of occupations in 2015, and 70 job ads in 2014. In the last 12 months (May 2016 to April 2017) there have been 46 job postings for the aircraft electronics and avionics technology occupational group.

Top employers posting job ads in the last 12 months for aircraft electronics and avionics technology occupational group included (46 total job ads, 22 job ads did not list an employer name):

- Pulsar Aviation Services, Inc (5 job ads)
- Pae Incorporated (4)
- General Atomics (3)
- Skywest Airlines (3)
- Unical Aviation Incorporated (2)

The top worksite cities in the region were San Bernardino, Victorville, March Air Reserve Base, Daggett, and Riverside.

Exhibit 3 lists the top specialized and soft skills that employers are seeking when looking for workers to fill aircraft electronics and avionics technology positions.

Exhibit 3: Top skills for the aircraft electronics and avionics technology occupational group in the Riverside-San Bernardino-Ontario MSA

Occupations	Specialized skills	Soft skills
Aircraft Mechanics and Service Technicians	<ul style="list-style-type: none"> • Repair • Inspection • Test Equipment • Hand Tools • Power Tools • Technical Writing/ Editing 	<ul style="list-style-type: none"> • Troubleshooting • English • Organizational Skills • Detail-Oriented
Avionics Technicians	<ul style="list-style-type: none"> • Repair • Electrical Systems/ Electrical Work/ Wiring 	<ul style="list-style-type: none"> • Troubleshooting

Exhibit 4 displays the education level requested by employers in online job ads. The majority of employers in 2016 were looking for a candidate with a high school diploma or vocational training.

Exhibit 4: 2016 online job ads with minimum advertised education requirements for the aircrafts electronics and avionics technology occupational group in the Riverside-San Bernardino-Ontario MSA (n=45)

Occupations	High school diploma or vocational training	Associate degree	Bachelor's degree or higher
Aircraft Mechanics and Service Technicians	100%	-	-
Avionics Technicians	50%	50%	-

Student Completions and Student Outcomes

Exhibit 5 shows the annual average regional community college awards (associate degrees and certificates) conferred during the three academic years between 2013 and 2016, as well as other awards granted outside the California Community Colleges from 2012-2015, with the relevant TOP code. Please note an award is not equivalent to a single person in search of a job opening since a student may earn more than one award, such as an associate degree in addition to a certificate.

Community College student outcome information was obtained from the CTE LaunchBoard based on the selected TOP code(s) and region.

Exhibit 5: Annual average community college student completions for the aircraft electronics (avionics) program in the Riverside-San Bernardino-Ontario MSA

0950.00 – Aeronautical and Aviation Technology	Headcount (2014-2015)	CC Annual Avg. Awards (2013-16)	Annual Avg. Certificates or Other Credit Awards (2012-15)
Chaffey	64		
Certificate 60+ semester units		2	
San Bernardino	37		
Associate Degree		2	
Certificate 30 to < 60 semester units		5	
Victor Valley	59		
Certificate 6 to < 18 semester units		7	
TOTAL Headcount	160		
TOTAL CC Awards		16	

0950.00 Aeronautical and Aviation Technology program outcomes in the Riverside-San Bernardino-Ontario MSA:

- The median annual wage after program completion is \$25,389.
- 58% of students are earning a living wage.
- Course completers reported a wage increase of 109%.
- 74% of students are employed within six months after completing a program.

0950.10 – Aviation Airframe Mechanics	Annual CC Headcount (2014-2015)	CC Annual Avg. Awards (2013-16)	Annual Avg. Certificates or Other Credit Awards (2012-15)
Chaffey	67		
Associate Degree		5	
Certificate 30 to < 60 semester units		21	
San Bernardino	21		
Certificate 30 to < 60 semester units		10	
Victor Valley	48		
Certificate 18 to < 30 semester units		11	
TOTAL Headcount	136		
TOTAL CC Awards		47	

0950.10 Aviation Airframe Mechanics program outcomes in the Riverside-San Bernardino-Ontario MSA:

- The median annual wage after program completion is \$32,146.
- 67% of students are earning a living wage.
- Course completers reported a wage increase of 144%.
- 66% of students are employed within six months after completing a program.

0950.20 – Aviation Powerplant Mechanics	Annual CC Headcount (2014-2015)	CC Annual Avg. Awards (2013-16)	Annual Avg. Certificates or Other Credit Awards (2012-15)
Chaffey	71		
Associate Degree		4	
Certificate 30 to < 60 semester units		27	
San Bernardino	21		
Certificate 30 to < 60 semester units		10	
Victor Valley	23		
Certificate 18 to < 30 semester units		12	
TOTAL Headcount	115		
TOTAL CC Awards		52	

0950.20 Aviation Powerplant Mechanics program outcomes in the Riverside-San Bernardino-Ontario MSA:

- The median annual wage after program completion is \$25,887.
- 58% of students are earning a living wage.
- Course completers reported a wage increase of 132%.
- 69% of students are employed within six months after completing a program.

0950.40 – Aircraft Electronics (Avionics)	Annual CC Headcount (2014-2015)	CC Annual Avg. Awards (2013-16)	Annual Avg. Certificates or Other Credit Awards (2012-15)
*Insufficient enrollment and completion data. Not enough students enrolled in or graduating from this TOP code.	-	-	-

0950.40 Aircraft Electronics (Avionics) program outcomes in the Riverside-San Bernardino-Ontario MSA:

No outcome data available as students do not appear to be graduating from this TOP code.

0950.50 – Aircraft Fabrication	Annual CC Headcount (2014-2015)	CC Annual Avg. Awards (2013-16)	Annual Avg. Certificates or Other Credit Awards (2012-15)
Chaffey	27		
San Bernardino	20		
TOTAL Headcount	47		
*No completion data available for this TOP code.			

0950.50 Aircraft Fabrication program outcomes in the Riverside-San Bernardino-Ontario MSA:

- No outcome data available as students do not appear to be graduating from this TOP code.



Sources

O*Net Online

Labor Insight/Jobs (Burning Glass)

Economic Modeling Specialists International (EMSI) Class of Worker 2017.2

CTE LaunchBoard

Statewide CTE Outcomes Survey

Employment Development Department Unemployment Insurance Dataset

Living Insight Center for Community Economic Development

California Community Colleges Chancellor's Office Management Information Systems (MIS)

Michael Goss, Director

Center of Excellence, Inland Empire/ Desert Region

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Appendix A: Occupation definitions, five-year projections, and earnings for the aircraft electronics and avionics technology occupational group

Occupation Definitions (SOC code), Education and Training Requirement, Community College Education Attainment

Avionics Technicians (49-2091)

Install, inspect, test, adjust, or repair avionics equipment, such as radar, radio, navigation, and missile control systems in aircraft or space vehicles.

Entry-Level Educational Requirement: Associate degree

Training Requirement: None

Percentage with Community College Award or Some Postsecondary Coursework: 71%

Aircraft Mechanics and Service Technicians (49-3011)

Diagnose, adjust, repair, or overhaul aircraft engines and assemblies, such as hydraulic and pneumatic systems. Includes helicopter and aircraft engine specialists.

Entry-Level Educational Requirement: Postsecondary nondegree award

Training Requirement: None

Percentage with Community College Award or Some Postsecondary Coursework: 60%

Table 1. Job growth and wages for the aircraft electronics and avionics technology occupational group in the Riverside-San Bernardino-Ontario MSA

Occupations (SOC code)	2016 Jobs	5-Yr Openings to 2021 (New + Replacement Jobs)	Annual Openings to 2021	Entry to Experienced Hourly Earnings Range*	Avg. Annual Earnings
Aircraft Mechanics and Service Technicians (49-3011)	979	246	49	\$16.72 to \$53.38	\$65,200
Avionics Technicians (49-2091)	47	20	4	\$22.83 to \$41.15	\$66,500
Total	1,025	265	53	\$16.99 to \$52.86	\$65,200

*Entry is 10th percentile and experienced is 90th percentile hourly earnings