



Labor Market Analysis for Program Recommendation

Drone Operator Occupations

Santa Cruz and Monterey Subregion

Prepared by the Bay Region Center of Excellence for Labor Market Research

Noncredit Program

August 2026

Recommendation Based on Labor Market Data: ☒ Yes ☐ With Reservations ☐ No		
	Earning Wage Meets Living Wage	Meets Demand
Bay Region	Entry Level Hourly Wage- \$38 Mid-Career Hourly Wage- \$65 Mid-Career Hourly Wage at or above the Bay Living Wage (\$27)? ☒ Yes ☐ No	Demand: 178 Supply: 27 (15% of Demand is Met) Gap: 151 In-Demand? ☒ Yes ☐ No
Santa Cruz and Monterey Subregion	Entry Level Hourly Wage- \$28 Mid-Career Hourly Wage- \$42 Mid-Career Hourly Wage at or above the Subregion Living Wage (\$27)? ☒ Yes ☐ No	Demand: 20 Supply: 0 (0% of Demand is Met) Gap: 20 In-Demand? ☐ Yes ☒ No

Note: An occupation is considered to provide a living wage if the mid-career wage is at or above the amount required for a single adult to be economically self-sufficient within a specified region. In this report, the living wage is currently based on the California Self-Sufficiency Standard. As a rule of thumb, an occupation will be considered **in-demand** when the supply is less than 75% of the demand **and** the labor market gap exceeds 40 openings (a reasonable regional threshold for starting a new program), but this approach may not apply in all cases. For definitions of demand, supply, and living wage, please scroll to the bottom of the report under **Definitions**.

Recommendation

The labor market data supports this proposed program. The occupations meet both the Bay Region and Santa Cruz and Monterey subregion living wage at the entry and mid-career levels. An additional 151 students are needed in the Bay Region and 20 students in the Santa Cruz and Monterey subregion to complete their program. Lastly, only 15% of labor market demand is being met in the Bay Region, and 0% of demand is being met in the Santa Cruz and Monterey subregion overall.

Introduction

This report provides student outcomes data on employment and earnings for TOP 0950.00 - Aeronautical and Aviation Technology programs in the state and region. It is recommended that these data be reviewed to better understand how outcomes for students taking courses on this TOP code compare to potentially similar programs at subregion in the state and region.

This report profiles Drone Operator Occupations in the 12 county Bay Region and in the Santa Cruz and Monterey subregion. The occupations classified as middle-skill occupations require a certificate, or an associate degree, or it may require a bachelor's degree, but 33% or fewer of current workers in these roles hold one.

- **Commercial Pilots (53-2012):** Pilot and navigate the flight of fixed-wing aircraft on nonscheduled air carrier routes, or helicopters. Requires Commercial Pilot certificate. Includes charter pilots with similar certification, and air ambulance and air tour pilots. Excludes regional, national, and international airline pilots.
Typical Entry-Level Educational: High school diploma or equivalent
Skill Level: Middle-Skill
Work Experience Required: None
Percentage of individuals 25+ with an associate degree, certificate, or some postsecondary coursework as their highest level of education attainment: 18%

Occupational Demand

Table 1. Employment Outlook for Drone Operator Occupations in the Bay Region

Occupation	2024 Jobs	2029 Jobs	5-yr Change	5-yr % Change	5-yr Total Openings	Annual Openings	Entry Level Hourly	Mid-Career Hourly Wage
Commercial Pilots	1,414	1,487	73	5%	892	178	\$38	\$65
Total	1,414	1,487	73	5%	892	178	\$38	\$65

Source: Lightcast 2026.1

The Bay Region includes: Alameda, Contra Costa, Marin, Monterey, Napa, San Benito, San Francisco, San Mateo, Santa Clara, Santa Cruz, Solano and Sonoma Counties

Table 2. Employment Outlook for Drone Operator Occupations in the Santa Cruz and Monterey Subregion

Occupation	2024 Jobs	2029 Jobs	5-yr Change	5-yr % Change	5-yr Total Openings	Annual Openings	Entry Level Hourly	Mid-Career Hourly Wage
Commercial Pilots	169	173	3	2%	102	20	\$28	\$42
Total	169	173	4	2%	102	20	\$28	\$42

Source: Lightcast 2026.1

Santa Cruz and Monterey Subregion includes: Monterey, San Benito, Santa Cruz Counties

Job Postings in the Bay Region and Santa Cruz and Monterey Subregion

Table 3. Number of Job Postings by Occupation for the latest 12 months

Occupation	Bay Region	Santa Cruz and Monterey
Commercial Pilots	65	15

Source: Lightcast 2026.1; "Job Posting Analytics." Jul. 2025 - Jun. 2026

Table 4a. Top Job Titles in Job Postings for Drone Operator Occupations in the Bay Region

Title	Bay	Title	Bay
Air Interdiction Agents	39	Control Center Operators	1
Test Pilots	10	Hardware Test Engineers	1
Flight Test Engineers	2	Chief Pilots	1
Flight Test Pilots	2	Engineers	1
Pilot Engineers	2	Pilots	1
Pilots First Officer	1	HVAC Drafters	1
Regulatory Operations Managers	1	Playwrights	1

Source: Lightcast 2026.1; "Job Posting Analytics." Jul. 2025 - Jun. 2026

Table 4b. Top Job Titles in Job Posting for Drone Operator Occupations in the Santa Cruz and Monterey Subregion

Title	Santa Cruz and Monterey	Title	Santa Cruz and Monterey
Air Interdiction Agents	7	Flight Test Engineers	1
Test Pilots	4	HVAC Drafters	1
Pilots First Officer	1		

Source: Lightcast 2026.1; "Job Posting Analytics." Jul. 2025 - Jun. 2026

Industry Concentration

Table 5. Industries Hiring for Drone Operator Occupations in the Bay Region

Industry - 6 Digit NAICS (No. American Industry Classification) Codes	Jobs in Industry (2024)	Jobs in Industry (2029)	% Change (2024-29)	% Occupation Group in Industry (2024)
Federal Government, Military	247	257	4%	18%
Nonscheduled Chartered Passenger Air Transportation	222	232	5%	15%
Ambulance Services	126	142	12%	9%
Scheduled Passenger Air Transportation	91	87	-4%	6%

Industry - 6 Digit NAICS (No. American Industry Classification) Codes	Jobs in Industry (2024)	Jobs in Industry (2029)	% Change (2024-29)	% Occupation Group in Industry (2024)
Other Airport Operations	62	72	16%	5%
Other Nonscheduled Air Transportation	58	73	24%	4%
Other Technical and Trade Schools	62	55	-12%	4%
Corporate, Subsidiary, and Regional Managing Offices	44	55	26%	3%
Farm Labor Contractors and Crew Leaders	42	45	7%	3%
Scenic and Sightseeing Transportation, Other	32	32	1%	2%

Source: Lightcast 2026.1

Table 6. Top Employers Posting Drone Operator Occupations in the Bay Region and the Santa Cruz and Monterey Subregion

Employer	Bay	Employer	Santa Cruz and Monterey
United States Department of Homeland Security	39	United States Department of Homeland Security	7
Joby Aviation	10	Joby Aviation	5
Reliable Robotics Corporation	6	Wisk Aero	1
Tesla	4	Republic Airways	1
Jade Global	1	Domestiko.com	1
Archer	1		

Source: Lightcast 2026.1; "Job Posting Analytics." Jul. 2025 - Jun. 2026

Educational Supply

There are four community colleges in the Bay Region issuing 27 awards on average annually (last 3 years ending 2024-25) on TOP 0950.00 - Aeronautical and Aviation Technology. In the Santa Cruz and Monterey subregion, there are no community colleges that issued awards on average annually (last 3 years) on this TOP code.

There are no other CTE educational institutions in the Bay Region issuing awards on average annually (last 3 years ending 2023-24) on CIP 49.0109- Remote Aircraft Pilot.

Table 7. Community College Awards on TOP 0950.00 - Aeronautical and Aviation Technology in the Bay Region

College	Subregion	Associate Degree	High unit Certificate	Low unit Certificate	Noncredit award	Total
Gavilan	Silicon Valley	3	0	13	0	16
Los Medanos	East Bay	0	0	0	5	5
Solano	North Bay	2	2	0	0	4
West Valley	Silicon Valley	1	0	1	0	2
Total	-	6	2	14	5	27

College	Subregion	Associate Degree	High unit Certificate	Low unit Certificate	Noncredit award	Total
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Source: Data Mart

Note: The annual average for awards is 2022-23 to 2024-25.

Gap Analysis

Based on the data included in this report, there is a labor market gap in the Bay Region with 178 annual openings for the Drone Operator occupational cluster and 27 annual (3-year average) awards for an annual undersupply of 151 students. In the Santa Cruz and Monterey subregion, there is also a gap with 20 annual openings and 0 annual (3-year average) awards for an annual undersupply of 20 students.

Student Outcomes

Table 8. Four Employment Outcomes Metrics for Students Who Took Courses on TOP 0950.00 - Aeronautical and Aviation Technology

Metric Outcomes	Bay All CTE Program	State 0950.00	Bay 0950.00	Santa Cruz and Monterey 0950.00
Students with a Job Closely Related to Their Field of Study	75%	81%	NA	NA
Median Annual Earnings for SWP Exiting Students	\$58,379	\$53,558	\$45,759	NA
Median Change in Earnings for SWP Exiting Students	31%	40%	19%	NA
Exiting Students Who Attained the Living Wage	50%	55%	43%	NA

Source: DataVista Program Median of 2020 to 2022.

Skills, Certifications and Education

Table 9. Top Skills in Job Postings for Drone Operator Occupations in the Bay Region

Skill	Posting	Skill	Posting
Unmanned Aerial Systems (UAS)	51	Federal Aviation Administration	11
Aviation	47	Export Control	9
Rotorcraft	42	Robotics	8
American Institute Of Architects	39	Test Planning	8
Contraband Detection And Control	39	Vertical Take-Off And Landing (VTOL)	8
IBM MQ	39	Safety Management Systems	7
Information Systems	39	Systems Engineering	7
International Laws	39	Authorization (Computing)	6
Law Enforcement Operations	39	Curriculum Development	6
Flight Testing	16	Federal Aviation Regulations	6

Source: Lightcast 2026.1; "Job Posting Analytics." Jul. 2025 - Jun. 2026

Skill	Posting	Skill	Posting
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Table 10. Certifications in Job Postings for Drone Operator Occupations in the Bay Region

Certification	Posting	Certification	Posting
Airline Transport Pilot License	41	Valid Driver's License	2
FAA Second Class Medical Certificate	7	Drone Pilot Certificate	2
Commercial Pilot License	7	Pilot Licensing and Certification	2
Federal Aviation Administration (FAA) Certification	5	Private Pilot License	1

Source: Lightcast 2026.1; "Job Posting Analytics." Jul. 2025 - Jun. 2026

Table 11. Education Requirements for Drone Operator Occupations in the Bay Region

Education Level	Job Postings	% of Total
High school or GED	1	4%
Associate degree	0	0%
Bachelor's degree & higher	27	96%

Source: Lightcast 2026.1; "Job Posting Analytics." Jul. 2025 - Jun. 2026

Note: 72% of records have been excluded because they do not include a degree level. As a result, the chart above may not be representative of the full sample.

Methodology

Occupations for this report were identified by use of job descriptions and skills listed in O*Net. Labor demand data is sourced from Lightcast occupation and job postings data. Educational supply and student outcomes data is retrieved from multiple sources, including CCCCO Data Mart and CTE Launchboard.

Definitions

Demand refers to average annual openings which includes a combination of both [new jobs and replacement jobs](#) between 2024 to 2029. New jobs represent the total number of additional workers required in an occupation, calculated as the difference between the current number of workers and the projected number of unfilled positions. Replacements are jobs that will need to be filled by [new hires](#) due to existing workers leaving the occupation. The average annual openings figure is derived by dividing total openings (2024 to 2029) by five years.

Supply refers to the average number of [graduates](#) between academic years 2021–2022 and 2023–2024. Graduates include students from community colleges, other two-year private and public institutions, as well as four-year institutions.

Living wage refers to the amount of income required for working families to meet basic needs at a minimally adequate level, considering family composition, ages of children, and geographic differences in costs based on the Self-Sufficiency Standard methodology.

Entry-level wages are the hourly earnings paid to workers who are newly entering an occupation.

Mid-career wages are the hourly earnings paid to workers who have accumulated several years of experience in an occupation, reflecting increased productivity, skill proficiency, and responsibility beyond entry-level roles but short of late-career or senior positions.

Sources

O*Net Online

Lightcast

CTE LaunchBoard www.calpassplus.org

Statewide CTE Outcomes Survey

Employment Development Department Unemployment Insurance Dataset

CCCCO Data Mart

Contacts

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