



# Labor Market Analysis for Program Recommendation Agriculture Business Occupations Cabrillo College

Prepared by the San Francisco Bay Center of Excellence for Labor Market Research

October 2023

## Recommendation

Based on all available data, there appears to be an “undersupply” of Agriculture Business workers compared to the demand for this cluster of occupations in the Bay region and in the SC-Monterey sub-region (Monterey, San Benito, Santa Cruz counties). There is a projected annual gap of about 5,938 students in the Bay region and 736 students in the SC-Monterey Sub-Region.

## Introduction

This report provides student outcomes data on employment and earnings for TOP 0112.00 - Agriculture Business, Sales and Service 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 colleges in the state and region, as well as to outcomes across all CTE programs at Cabrillo College and in the region.

This report profiles Agriculture Business Occupations in the 12 county Bay region and in the SC-Monterey sub-region for a proposed new Agri-Business program at Cabrillo College.

- **Buyers and Purchasing Agents (13-1028):** Buy merchandise or commodities for resale to consumers at the wholesale or retail level, including both durable and nondurable goods. Analyze past buying trends, sales records, price, and quality of merchandise to determine value and yield. Select, order, and authorize payment for merchandise according to contractual agreements. May conduct meetings with sales personnel and introduce new products. May negotiate contracts. Includes assistant wholesale and retail buyers.  
Entry-Level Educational Requirement: Bachelor’s degree  
Training Requirement: Moderate-term on-the-job training  
Percentage of Community College Award Holders or Some Postsecondary Coursework: NA%
- **Logisticians (13-1081):** Analyze and coordinate the logistical functions of a firm or organization. Responsible for the entire life cycle of a product, including acquisition, distribution, internal allocation, delivery, and final disposal of resources. Excludes “Transportation, Storage, and Distribution Managers” (11-3071).  
Entry-Level Educational Requirement: Bachelor’s degree  
Training Requirement: None  
Percentage of Community College Award Holders or Some Postsecondary Coursework: 39%
- **Agricultural Technicians (19-4012):** Work with agricultural scientists in plant, fiber, and animal research, or assist with animal breeding and nutrition. Set up or maintain laboratory equipment and collect samples from crops or animals. Prepare specimens or record data to assist scientists in biology or related life science experiments. Conduct tests and experiments to improve yield and quality of crops or to increase the resistance of plants and animals to disease or insects.

Entry-Level Educational Requirement: Associate's degree

Training Requirement: Moderate-term on-the-job training

Percentage of Community College Award Holders or Some Postsecondary Coursework: NA%

- **Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products (41-4012):** Sell goods for wholesalers or manufacturers to businesses or groups of individuals. Work requires substantial knowledge of items sold.

Entry-Level Educational Requirement: High school diploma or equivalent

Training Requirement: Moderate-term on-the-job training

Percentage of Community College Award Holders or Some Postsecondary Coursework: 30%

- **First-Line Supervisors of Farming, Fishing, and Forestry Workers (45-1011):** Directly supervise and coordinate the activities of agricultural, forestry, aquacultural, and related workers. Excludes "First-Line Supervisors of Landscaping, Lawn Service, and Groundskeeping Workers" (37-1012).

Entry-Level Educational Requirement: High school diploma or equivalent

Training Requirement: None

Percentage of Community College Award Holders or Some Postsecondary Coursework: 20%

## Occupational Demand

**Table 1. Employment Outlook for Agriculture Business Occupations in Bay Region**

Occupation	2021 Jobs	2026 Jobs	5-yr Change	5-yr % Change	5-yr Total Openings	Annual Openings	25% Hourly Earning	Median Hourly Wage
Buyers and Purchasing Agents	12,155	12,385	231	2%	6,418	1,284	\$29	\$38
Logisticians	8,049	9,397	1,348	17%	5,104	1,021	\$35	\$46
Agricultural Technicians	666	750	84	13%	583	117	\$18	\$22
Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products	27,706	28,404	698	3%	14,982	2,996	\$26	\$36
First-Line Supervisors of Farming, Fishing, and Forestry Workers	3,224	3,556	332	10%	2,762	552	\$16	\$21
<b>Total</b>	<b>51,800</b>	<b>54,493</b>	<b>2,693</b>	<b>5%</b>	<b>29,849</b>	<b>5,970</b>		

Source: Lightcast 2022.3

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 Agriculture Business Occupations in SC-Monterey Sub-region**

Occupation	2021 Jobs	2026 Jobs	5-yr Change	5-yr % Change	5-yr Total Openings	Annual Openings	25% Hourly Earning	Median Hourly Wage
Buyers and Purchasing Agents	617	646	29	5%	344	69	\$24	\$31
Logisticians	314	367	53	17%	200	40	\$32	\$39
Agricultural Technicians	195	211	16	8%	160	32	\$17	\$21
Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products	2,186	2,395	209	10%	1,354	271	\$23	\$33
First-Line Supervisors of Farming, Fishing, and Forestry Workers	2,005	2,246	242	12%	1,766	353	\$16	\$20
<b>Total</b>	<b>5,317</b>	<b>5,866</b>	<b>549</b>	<b>10%</b>	<b>3,823</b>	<b>765</b>		

Source: Lightcast 2022.3

SC-Monterey Sub-Region includes: Monterey, San Benito, Santa Cruz Counties

**Job Postings in Bay Region and SC-Monterey Sub-Region**

**Table 3. Number of Job Postings by Occupation for latest 12 months (Oct. 2022 - Sept. 2023)**

Occupation	Bay Region	SC-Monterey
Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products	31,163	1,082
Buyers and Purchasing Agents	3,753	110
Logisticians	2,195	55
Agricultural Technicians	81	31
First-Line Supervisors of Farming, Fishing, and Forestry Workers	64	16

Source: Lightcast

**Table 4a. Top Job Titles for Agriculture Business Occupations for latest 12 months (Oct. 2022 - Sept. 2023)  
Bay Region**

Title	Bay	Title	Bay
Account Executives	1,714	Sales Account Managers	420
Account Managers	1,414	Business Development Representatives	368
Sales Representatives	1,329	Contract Administrators	364
Outside Sales Representatives	1,302	Sales Development Representatives	292
Enterprise Account Executives	688	Territory Sales Representatives	262
Field Sales Representatives	672	Market Account Executives	241
Inside Sales Representatives	648	Contracts Managers	231
Sales Consultants	524	Sales Coordinators	214
Buyers	497	Strategic Account Executives	214

Source: Lightcast

**Table 4b. Top Job Titles for Agriculture Business Occupations for latest 12 months (Oct. 2022 - Sept. 2023)  
SC-Monterey Sub-Region**

Title	SC-Monterey	Title	SC-Monterey
Sales Representatives	77	Buyers	19
Outside Sales Representatives	54	Sales Account Managers	18
Account Managers	44	Sales Executives	14
Account Executives	43	Procurement Specialists	11
Sales Consultants	43	Sales Coordinators	11
Inside Sales Representatives	41	Commercial Lines Account Managers	10

Title	SC-Monterey	Title	SC-Monterey
Field Sales Representatives	25	Replenishment Buyers	10
Bilingual Spanish Customer Service Representatives	23	Retail Sales Consultants	10
Account Representatives	19	Shelter Monitors	10

Source: Lightcast

## Industry Concentration

**Table 5. Industries hiring Agriculture Business Workers in Bay Region**

Industry - 6 Digit NAICS (No. American Industry Classification) Codes	Jobs in Industry (2021)	Jobs in Industry (2026)	% Change (2021-26)	% Occupation Group in Industry (2022)
Electronic Computer Manufacturing	1,997	2,541	27%	4%
Corporate, Subsidiary, and Regional Managing Offices	2,023	1,924	-5%	4%
Wholesale Trade Agents and Brokers	1,824	1,406	-23%	3%
Crop Production	1,611	1,704	6%	3%
Wineries	1,332	1,507	13%	3%
Other Electronic Parts and Equipment Merchant Wholesalers	1,123	1,003	-11%	2%
Other Grocery and Related Products Merchant Wholesalers	993	1,063	7%	2%
Federal Government, Civilian, Excluding Postal Service	964	932	-3%	2%
Farm Labor Contractors and Crew Leaders	910	1,074	18%	2%
Research and Development in the Physical, Engineering, and Life Sciences (except Nanotechnology and Biotechnology)	797	1,024	28%	2%

Source: Lightcast 2022.3

**Table 6. Top Employers Posting Agriculture Business Occupations in Bay Region and SC-Monterey Sub-Region (Oct. 2022 - Sept. 2023)**

Employer	Bay	Employer	SC-Monterey
AT&T	818	AT&T	56
UnitedHealth Group	288	O'Reilly Auto Parts	25
O'Reilly Auto Parts	267	University of California	25
Salesforce	239	Victra	18
GPAC	197	Stiiizy	16
Aston Carter	193	GPAC	14

Source: Lightcast

## Educational Supply

There are two (2) community colleges in the Bay Region issuing 32 awards on average annually (last 3 years ending 2021-22) on TOP 0112.00 - Agriculture Business, Sales and Service. In the SC-Monterey Sub-Region, there is one (1) community college that issued 29 awards on average annually (last 3 years) on this TOP code.

**Table 7. Community College Awards on TOP 0112.00 - Agriculture Business, Sales and Service in Bay Region**

College	Subregion	Associate Degree	High unit Certificate	Low unit Certificate	Total
Hartnell	SC-Monterey	26	1	2	29
Santa Rosa	North Bay	3	0	0	3
<b>Total</b>		<b>29</b>	<b>1</b>	<b>2</b>	<b>32</b>

Source: Data Mart

Note: The annual average for awards is 2019-20 to 2021-22.

## Gap Analysis

Based on the data included in this report, there is a large labor market gap in the Bay region with 5,970 annual openings for the Agriculture Business occupational cluster and 32 annual (3-year average) awards for an annual undersupply of 5,938 students. In the SC-Monterey Sub-Region, there is also a gap with 765 annual openings and 29 annual (3-year average) awards for an annual undersupply of 736 students.

## Student Outcomes

**Table 8. Four Employment Outcomes Metrics for Students Who Took Courses on TOP 0112.00 - Agriculture Business, Sales and Service**

Metric Outcomes	Bay All CTE Programs	Cabrillo All CTE Programs	State 0112.00	Bay 0112.00	SC-Monterey 0112.00	Cabrillo 0112.00
Students with a Job Closely Related to Their Field of Study	74%	80%	69%	73%	N/A	N/A
Median Annual Earnings for SWP Exiting Students	\$53,090	\$46,381	\$32,362	\$47,238	\$35,484	N/A
Median Change in Earnings for SWP Exiting Students	24%	23%	60%	32%	111%	N/A
Exiting Students Who Attained the Living Wage	54%	44%	59%	62%	43%	N/A

Source: Launchboard Strong Workforce Program Median of 2018 to 2021.

## Skills, Certifications and Education

**Table 9. Top Skills for Agriculture Business Occupations in Bay Region (Oct. 2022 - Sept. 2023)**

Skill	Posting	Skill	Posting
Selling Techniques	9,923	Business To Business	3,446
Sales Prospecting	8,697	Product Knowledge	3,022
Marketing	7,965	Cold Calling	2,953
Customer Relationship Management	5,467	Merchandising	2,728
Salesforce	4,270	Project Management	2,695

Skill	Posting	Skill	Posting
Outside Sales	4,122	Sales Territory Management	2,608
Sales Process	3,817	Procurement	2,580
Account Management	3,658	Finance	2,535
Business Development	3,519	Software As A Service (SaaS)	2,386
Purchasing	3,464	Supply Chain	2,273

Source: Lightcast

**Table 10. Certifications for Agriculture Business Occupations in Bay Region (Oct. 2022 - Sept. 2023)**

Certification	Posting	Certification	Posting
Valid Driver's License	5,573	Project Management Professional Certification	65
Master of Business Administration (MBA)	728	FINRA Series 7 (General Securities Representative)	62
Insurance License	181	Bachelor of Science in Business	61
American Production And Inventory Control Society (APICS) Certification	161	APICS Certified Supply Chain Professional	60
Certified In Production and Inventory Management	111	Enterprise Desktop Administrator (Microsoft Certified IT Professional)	58
Security Clearance	98	Functional Skills Qualification	49
Wine & Spirit Education Trust (WSET) Certification	86	Product Certification	49
Property and Casualty Insurance License	75		

Source: Lightcast

**Table 11. Education Requirements for Agriculture Business Occupations in Bay Region**

Education Level	Job Postings	% of Total
High school or GED	5,841	23%
Associate degree	1,625	6%
Bachelor's degree & higher	18,459	71%

Source: Lightcast

Note: 44% 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.

## Sources

O\*Net Online

Lightcast

CTE LaunchBoard [www.calpassplus.org](http://www.calpassplus.org)

Launchboard

Statewide CTE Outcomes Survey

Employment Development Department Unemployment Insurance Dataset

Living Insight Center for Community Economic Development

Chancellor's Office MIS system

## Contacts

For more information, please contact:

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