



# Labor Market Information Report

## Arboriculture Occupations

### Cabrillo College

Prepared by the San Francisco Bay Center of Excellence for Labor Market Research  
February 2022

#### Recommendation

Based on all available data, there appears to be an “undersupply” of Arboriculture 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 5,979 students in the Bay region and 999 students in the SC-Monterey Sub-Region.

#### Introduction

This report provides student outcomes data on employment and earnings for TOP 0109.10 Landscape Design and Maintenance 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 Arboriculture Occupations in the 12 county Bay region and in the SC-Monterey sub-region for a program modification at Cabrillo College.

- **First-Line Supervisors of Landscaping, Lawn Service, and Groundskeeping Workers (37-1012):** Directly supervise and coordinate activities of workers engaged in landscaping or groundskeeping activities. Work may involve reviewing contracts to ascertain service, machine, and workforce requirements; answering inquiries from potential customers regarding methods, material, and price ranges; and preparing estimates according to labor, material, and machine costs.
  - Entry-Level Educational Requirement: High school diploma or equivalent
  - Training Requirement: None
  - Percentage of Community College Award Holders or Some Postsecondary Coursework: 30%
- **Landscaping and Groundskeeping Workers (37-3011):** Landscape or maintain grounds of property using hand or power tools or equipment. Workers typically perform a variety of tasks, which may include any combination of the following: sod laying, mowing, trimming, planting, watering, fertilizing, digging, raking, sprinkler installation, and installation of mortarless segmental concrete masonry wall units. Excludes “Farmworkers and Laborers, Crop, Nursery, and Greenhouse” (45-2092).
  - Entry-Level Educational Requirement: No formal educational credential
  - Training Requirement: Short-term on-the-job training
  - Percentage of Community College Award Holders or Some Postsecondary Coursework: 20%

- Pesticide Handlers, Sprayers, and Applicators, Vegetation (37-3012):** Mix or apply pesticides, herbicides, fungicides, or insecticides through sprays, dusts, vapors, soil incorporation, or chemical application on trees, shrubs, lawns, or botanical crops. Usually requires specific training and State or Federal certification. Excludes “Commercial Pilots” (53-2012) who dust or spray crops from aircraft.
  - 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: 21%

## Occupational Demand

**Table 1. Employment Outlook for Arboriculture Occupations in Bay Region**

Occupation	2020 Jobs	2025 Jobs	5-yr Change	5-yr % Change	5-yr Total Openings	Annual Openings	25% Hourly Earning	Median Hourly Wage
First-Line Supervisors of Landscaping, Lawn Service, and Groundskeeping Workers	4,006	4,159	153	4%	2,526	505	\$20	\$52
Landscaping and Groundskeeping Workers	35,052	36,402	1,350	4%	27,215	5,443	\$14	\$40
Pesticide Handlers, Sprayers, and Applicators, Vegetation	635	665	29	5%	504	101	\$14	\$43
<b>Total</b>	<b>39,693</b>	<b>41,226</b>	<b>1,533</b>	<b>4%</b>	<b>30,245</b>	<b>6,049</b>		

Source: EMSI 2021.3

**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 Arboriculture Occupations in SC-Monterey Sub-region**

Occupation	2020 Jobs	2025 Jobs	5-yr Change	5-yr % Change	5-yr Total Openings	Annual Openings	25% Hourly Earning	Median Hourly Wage
First-Line Supervisors of Landscaping, Lawn Service, and Groundskeeping Workers	698	738	40	6%	458	92	\$20	\$51
Landscaping and Groundskeeping Workers	5,634	5,957	322	6%	4,518	904	\$14	\$41
Pesticide Handlers, Sprayers, and Applicators, Vegetation	70	74	3	5%	57	11	\$14	\$44
<b>Total</b>	<b>6,402</b>	<b>6,769</b>	<b>367</b>	<b>6%</b>	<b>5,033</b>	<b>1,007</b>		

Source: EMSI 2021.3

**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 (Jan 2021 - Dec 2021)**

Occupation	Bay Region	SC-Monterey
Landscaping and Groundskeeping Workers	2,802	265
First-Line Supervisors of Landscaping, Lawn Service, and Groundskeeping Workers	372	21

Pesticide Handlers, Sprayers, and Applicators, Vegetation	127	18
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Source: Burning Glass

**Table 4a. Top Job Titles for Arboriculture Occupations for latest 12 months (Jan 2021 - Dec 2021) Bay Region**

Title	Bay	Title	Bay
Groundskeeper	249	Porter/Groundskeeper	40
Landscaper	191	Janitor/Groundskeeper	37
Gardener	96	Landscaping Crew Leader	36
Irrigation Technician	92	Groundsman	33
Landscape Gardener	63	Vegetation Management Inspector	33
Landscape Laborer	60	Landscape Construction Foreman	32
Enhancement Landscape Laborer	45	Groundskeeper/Porter	31
Landscape Foreman	45	Landscape Technician	29
Greenskeeper	41	Yard Crew Member	29

Source: Burning Glass

**Table 4b. Top Job Titles for Arboriculture Occupations for latest 12 months (Jan 2021 - Dec 2021) SC-Monterey Sub-Region**

Title	SC-Monterey	Title	SC-Monterey
Landscaper	31	Landscape Foreman	4
Groundskeeper	23	Maintenance Groundskeeper	4
Greenskeeper	14	Golf Course Maintenance	3
Yard Crew Member	11	Greenskeeper I	3
Irrigation Technician	10	Landscape Installation Crew	3
Grounds Maintenance	7	Landscape Labor	3
Landscape Laborer	6	Landscape Technician	3
Gardener	5	Landscaping Laborer	3
Groundskeeper/Porter	5	Vegetation Management Inspector	3

Source: Burning Glass

## Industry Concentration

**Table 5. Industries hiring Arboriculture Workers in Bay Region**

Industry – 6 Digit NAICS (No. American Industry Classification) Codes	Jobs in Industry (2020)	Jobs in Industry (2025)	% Change (2020-25)	% Occupation Group in Industry (2020)
Landscaping Services	28,180	28,976	3%	72%
Local Government, Excluding Education and Hospitals	2,337	2,548	9%	6%
Private Households	1,204	1,359	13%	3%
Golf Courses and Country Clubs	586	561	-4%	1%

Crop Production	450	447	-1%	1%
Colleges, Universities, and Professional Schools (State Government)	327	327	0%	1%
Colleges, Universities, and Professional Schools	286	308	8%	1%
All Other Amusement and Recreation Industries	301	289	-4%	1%
Residential Property Managers	237	249	5%	1%
Temporary Help Services	239	247	3%	1%

Source: EMSI 2021.3

**Table 6. Top Employers Posting Arboriculture Occupations in Bay Region and SC-Monterey Sub-Region (Jan 2021 - Dec 2021)**

Employer	Bay	Employer	SC-Monterey
Brightview	156	A Tool Shed Incorporated	8
Cagwin Dorward	59	Hyatt	7
Brightview Landscape Services	54	Kd Landscaping	5
Landcare	47	Greystar	5
Brightview Landscapes	46	Carmel Valley Ranch	5
Greystar	45	Santa Lucia Preserve	4
Fpi Management Incorporated	45	Kd Landscaping Incorporated	4
Trugreen	40	Habitat Gardens	4
ServiceMaster	31	Casa De Fruta	4
University Of California	24	Brightview	4

Source: Burning Glass

## Educational Supply

There are seven (7) community colleges in the Bay Region issuing 70 awards on average annually (last 3 years ending 2018-19) on TOP 0109.10 Landscape Design and Maintenance. In the SC-Monterey Sub-Region, there is one (1) community college (Cabrillo) that issued 8 awards on average annually (last 3 years) on this TOP code.

**Table 7. Community College Awards on TOP 0109.10 Landscape Design and Maintenance in Bay Region**

College	Subregion	Associate	Certificate Low	Total
Cabrillo	SC-Monterey	2	6	8
Diablo Valley	East Bay	0	1	1
Las Positas	East Bay	1	0	1
Marin	North Bay	1	2	3
Merritt	East Bay	16	20	36
San Francisco	Mid-Peninsula	2	13	15
Santa Rosa	North Bay	1	5	6
<b>Total</b>		<b>23</b>	<b>47</b>	<b>70</b>

Source: Data Mart

Note: The annual average for awards is 2016-17 to 2018-19.

## Gap Analysis

Based on the data included in this report, there is a large labor market gap in the Bay region with 6,049 annual openings for the Arboriculture occupational cluster and 70 annual (3-year average) awards for an annual undersupply of 5,979 students. In the SC-Monterey Sub-Region, there is also a gap with 1,007 annual openings and 8 annual (3-year average) awards for an annual undersupply of 999 students.

## Student Outcomes

**Table 8. Four Employment Outcomes Metrics for Students Who Took Courses on TOP 0109.10 Landscape Design and Maintenance**

Metric Outcomes	Bay All CTE Programs	Cabrillo All CTE Programs	State 0109.10	Bay 0109.10	SC-Monterey 0109.10	Cabrillo 0109.10
Students with a Job Closely Related to Their Field of Study	73%	76%	73%	77%	N/A	N/A
Median Annual Earnings for SWP Exiting Students	\$44,575	\$39,206	\$33,100	\$37,285	N/A	N/A
Median Change in Earnings for SWP Exiting Students	30%	31.10%	16%	15%	N/A	N/A
Exiting Students Who Attained the Living Wage	53%	50%	49%	45%	N/A	N/A

Source: Launchboard Strong Workforce Program Median of 2016-18.

## Skills, Certifications and Education

**Table 9. Top Skills for Arboriculture Occupations in Bay Region (Jan 2021 - Dec 2021)**

Skill	Posting	Skill	Posting
Repair	901	Landscaping	194
Irrigation Systems	652	Occupational Health & Safety	185
Cleaning	625	Herbicides	159
Debris and Litter Control	435	Irrigation (Agriculture)	156
Fertilizers	363	Customer Contact	150
Power Tools	351	Carpentry	146
Lifting Ability	347	Power Saws	138
Hand Tools	342	Masonry	131
Customer Service	333	Plumbing	120
Machinery	247	Forklift Operation	103
Scheduling	244	Supervisory Skills	88
Personal Protective Equipment (PPE)	240	Predictive / Preventative Maintenance	87
Budgeting	206	Weed Eaters	87
Painting	198	Lawn Care	85

Source: Burning Glass

**Table 10. Certifications for Arboriculture Occupations in the Bay Region (Jan 2021 - Dec 2021)**

Certification	Posting	Certification	Posting
Driver's License	1,702	Backflow Prevention Certification	7
Certified Arborist	85	Leadership In Energy And Environmental Design (LEED) Certified	6
Certified Pest Control	53	Certified Commercial Applicator	6
Cdl Class C	52	Project Management Professional (PMP)	5
First Aid Cpr Aed	23	Physical Fitness	5
Contractors License	22	OSHA Safety 30 Hour	5
Applicators License	21	OSHA Forklift Certification	5
Certified Applicator	11	Master Gardener Certification	5
Project Management Certification	10	Certified Safety Professional	5
CDL Class A	8	Occupational Safety and Health Administration Certification	4

Source: Burning Glass

Note: 45% of records have been excluded because they do not include a certification. As a result, the chart above may not be representative of the full sample.

**Table 11. Education Requirements for Arboriculture Occupations in Bay Region**

Education (minimum advertised)	Latest 12 Mos. Postings	Percent 12 Mos. Postings
High school or vocational training	792	92%
Associate's degree	40	5%
Bachelor's degree	23	3%

Source: Burning Glass

Note: 74% 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 skills listed in O\*Net descriptions and job descriptions in Burning Glass. Labor demand data is sourced from Economic Modeling Specialists International (EMSI) occupation data and Burning Glass job postings data. Educational supply and student outcomes data is retrieved from multiple sources, including CTE Launchboard and CCCCCO Data Mart.

## Sources

O\*Net Online

Labor Insight/Jobs (Burning Glass)

Economic Modeling Specialists International (EMSI)

CTE LaunchBoard [www.calpassplus.org/Launchboard/](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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