



Arboriculture Occupations Labor Market Information Report Diablo Valley College

Prepared by the San Francisco Bay Center of Excellence for Labor Market Research
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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 East Bay sub-region (Alameda, Contra Costa counties). There is a projected annual gap of about 6,109 students in the Bay region and 1,856 students in the East Bay 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 Diablo Valley College and in the region.

This report profiles Arboriculture Occupations in the 12 county Bay region and in the East Bay sub-region for a proposed new Arboriculture Entrepreneurship program at Diablo Valley 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%
- **Tree Trimmers and Pruners (37-3013):** Using sophisticated climbing and rigging techniques, cut away dead or excess branches from trees or shrubs to maintain right-of-way for roads, sidewalks, or utilities, or to improve appearance, health, and value of tree. Prune or treat trees or shrubs using handsaws, hand pruners, clippers, and power pruners. Works off the ground in the tree canopy and may use truck-mounted lifts. Excludes workers who primarily perform duties of “Pesticide Handlers, Sprayers, and Applicators, Vegetation” (37-3012) and “Landscaping and Groundskeeping Workers” (37-3011).

Entry-Level Educational Requirement: High school diploma or equivalent

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

Percentage of Community College Award Holders or Some Postsecondary Coursework: 17%

Occupational Demand

Table 1. Employment Outlook for Arboriculture Occupations in Bay Region

Occupation	2019 Job	2024 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, Groundskeeping Workers	3,775	4,028	253	7%	2,388	478	\$ 18.18	\$ 26.54
Landscaping and Groundskeeping Workers	35,960	38,418	2,458	7%	26,436	5,287	\$ 14.40	\$ 17.98
Tree Trimmers and Pruners	2,831	3,007	176	6%	2,068	414	\$ 16.40	\$ 20.98
Total	42,566	45,453	2,887	7%	30,892	6,179	\$14.87	\$18.94

Source: EMSI 2020.4

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 East Bay Sub-region

Occupation	2019 Job	2024 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, Groundskeeping Workers	1,202	1,267	65	5%	735	147	\$ 18.62	\$ 26.04
Landscaping and Groundskeeping Workers	11,411	12,089	678	6%	8,219	1,644	\$ 14.55	\$ 17.70
Tree Trimmers and Pruners	720	758	38	5%	513	103	\$ 16.40	\$ 21.07
Total	13,333	14,114	781	6%	9,467	1,894	\$15.02	\$18.63

Source: EMSI 2020.4

East Bay Sub-Region includes: Alameda, Contra Costa Counties

Job Postings in Bay Region and East Bay Sub-Region

Table 3. Number of Job Postings by Occupation for latest 12 months (Dec 2019-Nov 2020)

Occupation	Bay Region	East Bay
Landscaping and Groundskeeping Workers	2,104	678
Tree Trimmers and Pruners	470	168
First-Line Supervisors of Landscaping, Lawn Service, Groundskeeping Workers	316	95

Source: Burning Glass

Table 4a. Top Job Titles for Arboriculture Occupations for latest 12 months (Dec 2019-Nov 2020) Bay Region

Title	Bay	Title	Bay
Groundskeeper	241	Line Clearance Climber	48
Landscaper	143	Landscaping Crew Leader	47
Irrigation Technician	98	Janitor/Groundskeeper	40
Tree Climber	72	Groundskeeper/Porter	31
Landscape Laborer	68	Cannabis Trimmer	31
Gardener	62	Yard Crew Member	30

Title	Bay	Title	Bay
Line Clearance Groundman	53	Groundsman	29
Porter/Groundskeeper	52	Enhancement Landscape Laborer	27
Line Clearance Foreman	48	Landscape Gardener	22

Source: Burning Glass

Table 4b. Top Job Titles for Arboriculture Occupations for latest 12 months (Dec 2019-Nov 2020) East Bay Sub-Region

Title	East Bay	Title	East Bay
Groundskeeper	72	Janitor/Groundskeeper	15
Landscaper	46	Landscaping Crew Leader	14
Irrigation Technician	43	Groundsman	11
Landscape Laborer	30	Enhancement Landscape Laborer	11
Line Clearance Groundman	23	Cannabis Trimmer	10
Tree Climber	21	Trimmer	9
Line Clearance Foreman	20	Irrigation Specialist	9
Porter/Groundskeeper	17	Landscape Gardener	8
Line Clearance Climber	16	Landscape Crew Leader	8

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 (2019)	Jobs in Industry (2024)	% Change (2019-24)	% Occupation Group in Industry (2019)
Landscaping Services	30,786	32,922	7%	72%
Local Government, Excluding Education and Hospitals	2,328	2,441	5%	5%
Golf Courses and Country Clubs	829	836	1%	2%
Colleges, Universities, and Professional Schools (State Government)	580	643	11%	1%
All Other Amusement and Recreation Industries	566	680	20%	1%
Crop Production	531	533	0%	1%
Colleges, Universities, and Professional Schools	457	503	10%	1%
Hotels (except Casino Hotels) and Motels	406	420	3%	1%
Private Households	354	356	0%	1%
Colleges, Universities, and Professional Schools (Local Government)	256	248	-3%	1%

Source: EMSI 2020.4

Table 6. Top Employers Posting Arboriculture Occupations in Bay Region and East Bay Sub-Region (Dec 2019-Nov 2020)

Employers	Bay	Employer	East Bay
Brightview	184	Brightview	92
Wright Tree Service	115	Wright Tree Service	41
Cagwin Dorward	65	Cagwin Dorward	23

Employers	Bay	Employer	East Bay
ServiceMaster	43	ServiceMaster	20
Arborwell	41	Arborwell	19
Landcare	35	University Of California Berkeley	18
Greystar	35	ABM Industries	17
ABM Industries	33	Bwd Gardens	14
City Wide Property Services Inc	28	Monarch Landscape Companies	11
Davey Tree Expert Company	21	Terracare Associates	10
Brightview Landscapes, Llc	21	Philco Building Maintenance	10
Fpi Management	20	Greystar	10
University Of California Berkeley	19	City Wide Property Services Inc	10
Monarch Landscape Companies	19	Pinnacle Property Management Services	9

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 East Bay Sub-Region, there are three (3) community colleges that issued 38 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
Total		23	47	70

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 6,179 annual openings for the Arboriculture occupational cluster and 70 annual (3-year average) awards for an annual undersupply of 6,109 students. In the East Bay Sub-Region, there is also a gap with 1,894 annual openings and 38 annual (3-year average) awards for an annual undersupply of 1,856 students.

Student Outcomes

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

2017-18	Bay All CTE Program	Diablo Valley All CTE Program	State 0109.10	Bay 0109.10	East Bay 0109.10	Diablo Valley 0109.10
% Employed Four Quarters After Exit	67%	60%	57%	50%	51%	NA

2017-18	Bay All CTE Program	Diablo Valley All CTE Program	State 0109.10	Bay 0109.10	East Bay 0109.10	Diablo Valley 0109.10
Median Quarterly Earning Two Quarters After Exit	\$11,466	\$8,979	\$8,646	\$9,669	\$8,854	NA
Median % Change in Earning	31%	35%	24%	26%	4%	NA
% of Students Earning a Living Wage	53%	39%	52%	46%	44%	NA

Source: Launchboard Pipeline (version available on August 2020)

Skills, Certifications and Education

Table 9. Top Skills for Arboriculture Occupations in Bay Region (Dec 2019-Nov 2020)

Skill	Posting	Skill	Posting
Repair	772	Occupational Health and Safety	181
Lifting Ability	386	Commercial Driving	176
Cleaning	373	First Aid	169
Machinery	370	Motor Vehicle Operation	157
Oral Irrigation	359	Personal Protective Equipment (PPE)	155
Customer Service	355	Power Saws	140
Irrigation Systems	329	Landscaping	137
Hand Tools	294	Painting	131
Debris and Litter Control	270	Chain Saws	126
Cardiopulmonary Resuscitation (CPR)	255	Lift Trucks	125
Herbicides	255	Irrigation (Agriculture)	119
Fertilizers	242	Budgeting	112
Power Tools	229	Performance Appraisals	112
Scheduling	191	Performance Analysis	108

Source: Burning Glass

Table 10. Certifications for Arboriculture Occupations in the Bay Region (Dec 2019-Nov 2020)

Certification	Posting	Certification	Posting
Driver's License	1,381	Backflow Prevention Certification	8
First Aid Cpr Aed	67	Security Clearance	4
Certified Arborist	40	Certified Applicator	4
Certified Pest Control	36	Juniper Networks Certified Internet Specialist	3
Cdl Class C	26	Juniper Networks Certified Internet Associate	3
CDL Class A	23	Cisco Certified Network Professional (CCNP)	3
Learning Behavioral Specialist I	18	Cisco Certified Network Associate (CCNA)	3
Cdl Class B	15	Cisco Certified Design Professional (CCDP)	3
Contractors License	11	Certified Landscape Technician	3
Certified Climber	8	Business License	3

Source: Burning Glass

Note: 50% of records have been excluded because they do not include a certification. As a result, the chart below may not be representative of the full sample.

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

Education (minimum advertised)	Latest 12 Mos. Postings	Percent 12 Mos. Postings
High school or vocational training	789	88%
Associate's degree	25	3%
Bachelor's degree	81	9%

Source: Burning Glass

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/

Statewide CTE Outcomes Survey

Employment Development Department Unemployment Insurance Dataset

Living Insight Center for Community Economic Development

Chancellor's Office MIS system

Contacts

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