# Arboriculture Occupations
# Labor Market Information Report
# Diablo Valley College

**Prepared by the San Francisco Bay Center of Excellence for Labor Market Research**
**December 2020**

## 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 CCCCO 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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