

Commercial Cut Flower and Greenhouse Production Occupations Labor Market Information Report City College of San Francisco

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 a significant undersupply of Commercial Cut Flower and Greenhouse Production workers compared to the demand for this cluster of occupations in the Bay region and in the Mid-Peninsula sub-region (San Francisco and San Mateo Counties.) There is a projected annual gap of about 14,948 students in the Bay region and 1,175 students in the Mid-Peninsula Sub-Region.

This report also provides student outcomes data on employment and earnings for programs on TOP 0109.00 - Horticulture 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 City College of San Francisco (CCSF) and in the region.

Introduction

This report profiles Commercial Cut Flower and Greenhouse Production Occupations in the 12 county Bay region and in the Mid-Peninsula sub-region for the review of an existing program at City College of San Francisco.

- **Farmworkers and Laborers, Crop, Nursery, and Greenhouse (SOC 45-2092):** Manually plant, cultivate, and harvest vegetables, fruits, nuts, horticultural specialties, and field crops. Use hand tools, such as shovels, trowels, hoes, tampers, pruning hooks, shears, and knives. Duties may include tilling soil and applying fertilizers; transplanting, weeding, thinning, or pruning crops; applying pesticides; or cleaning, grading, sorting, packing, and loading harvested products. May construct trellises, repair fences and farm buildings, or participate in irrigation activities. Excludes "Graders and Sorters, Agricultural Products" (45-2041) and "Forest, Conservation, and Logging Workers" (45-4011 through 45-4029).

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: 12%

- **Floral Designers (SOC 27-1023):** Design, cut, and arrange live, dried, or artificial flowers and foliage.

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: 29%

- **Landscaping and Groundskeeping Workers (SOC 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: 19%

- **First-Line Supervisors of Landscaping, Lawn Service, and Groundskeeping Workers (SOC 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: 33%

Occupational Demand

Table 1. Employment Outlook for Commercial Cut Flower and Greenhouse Production Occupations in Bay Region

Occupation	2017 Jobs	2022 Jobs	5-Yr Change	5-Yr % Change	5-Yr Openings	Average Annual Openings	10% Hourly Wage	Median Hourly Wage
Farmworkers and Laborers, Crop, Nursery, and Greenhouse	56,325	60,130	3,804	7%	48,323	9,665	\$10.51	\$12.23
Floral Designers	1,266	1,232	(35)	(3%)	609	122	\$9.51	\$13.23
Landscaping and Groundskeeping Workers	36,052	38,253	2,202	6%	24,138	4,828	\$11.46	\$14.28
First-Line Supervisors of Landscaping, Lawn Service, and Groundskeeping Workers	3,703	3,883	180	5%	1,969	394	\$13.86	\$18.10
Total	97,346	103,498	6,152	6%	75,039	15,008	\$10.98	\$13.22

Source: EMSI 2019.1

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 Commercial Cut Flower and Greenhouse Production Occupations in Mid-Peninsula Sub-Region

Occupation	2017 Jobs	2022 Jobs	5-Yr Change	5-Yr % Change	5-Yr Openings	Average Annual Openings	10% Hourly Wage	Median Hourly Wage
Farmworkers and Laborers, Crop, Nursery, and Greenhouse	1,078	967	(110)	(10%)	820	164	\$10.54	\$14.43
Floral Designers	351	343	(8)	(2%)	171	34	\$9.54	\$16.79
Landscaping and Groundskeeping Workers	6,958	7,302	344	5%	4,578	916	\$12.32	\$16.71
First-Line Supervisors of Landscaping, Lawn Service, and Groundskeeping Workers	589	610	20	3%	307	61	\$14.45	\$21.75
TOTAL	8,976	9,222	246	3%	5,876	1,175	\$12.14	\$16.77

Source: EMSI 2019.1

Mid-Peninsula Sub-Region includes San Francisco and San Mateo Counties

Job Postings in Bay Region and Mid-Peninsula Sub-Region

Table 3. Number of Job Postings by Occupation for latest 12 months (April 2018 - March 2019)

Occupation	Bay Region	Mid-Peninsula
Landscaping and Groundskeeping Workers (37-3011.00)	1,647	333
First-Line Supervisors of Landscaping, Lawn Service, and Groundskeeping Workers (37-1012.00)	195	55
Floral Designers (27-1023.00)	69	26
Nursery Workers (45-2092.01)	6	4
Total	270	85

Source: Burning Glass

Table 4.a Top Job Titles for Commercial Cut Flower and Greenhouse Production Occupations for latest 12 months (April 2018 - March 2019) Bay Region.

Common Title	Bay	Common Title	Bay
Groundskeeper	436	Landscaping Crew Leader	19
Gardener	243	Maintenance Manager	19
Landscaper	111	Construction Labourer	17
Irrigation Technician	95	Landscape Foreman	17
Landscape Labourer	70	Account Manager	16
Groundsman	54	Golf Course Maintenance	16
Grounds Worker	46	Grounds Specialist	16
Floral Designer	42	Caretaker, Service Industry	14
Maintenance Worker	33	Construction Foreman	13
Greenskeeper	26	Installer	11
Landscaping Crew Member	23	Supervisor	11
Landscape Technician	19	Landscape Crew Leader	10

Table 4.b Top Job Titles for Commercial Cut Flower and Greenhouse Production Occupations for latest 12 months (April 2018 - March 2019) Mid-Peninsula Sub-Region

Common Title	Bay	Common Title	Bay
Gardener	77	Landscape Technician	5
Groundskeeper	59	Landscaping Crew Leader	5
Irrigation Technician	20	Account Manager	4
Floral Designer	16	Maintenance Controller	4
Groundsman	16	Maintenance Technician	4
Landscape Labourer	14	Maintenance Worker	4
Landscape Crew Lead	10	Area Sales Manager	3
Maintenance Manager	8	Assistant Manager	3
Landscaper	7	Crew Leader	3
Caretaker, Service Industry	6	Crew Member	3
Greenskeeper	6	Grounds Specialist	3
Grounds Worker	6	Indoor Plant Care Person	3
Landscape Maintenance	6	Landscape Foreman	3
Promotions Crew	6	Landscape Maintenance Crew Leader	3
Golf Course Maintenance	5	Landscaping Irrigation Specialist	3

Source: Burning Glass

Industry Concentration

Table 5. Industries hiring Commercial Cut Flower and Greenhouse Production Workers in Bay Region

Industry – 6 Digit NAICS (No. American Industry Classification) Codes	Jobs in Industry (2018)	Jobs in Industry (2022)	% Change (2018-22)	% in Industry (2018)
Farm Labor Contractors and Crew Leaders (115115)	1,204	20,484	34%	77.1%
Crop Production (111000)	(714)	11,533	22%	33.0%
Postharvest Crop Activities (except Cotton Ginning) (115114)	2,038	11,780	17%	77.7%
Landscaping Services (561730)	200	3,699	6%	15.9%
Farm Management Services (115116)	(63)	1,900	3%	58.4%
Crop Harvesting, Primarily by Machine (115113)	66	1,853	3%	77.8%
Soil Preparation, Planting, and Cultivating (115112)	97	1,254	2%	60.8%
Wineries (312130)	20	1,152	2%	5.2%
Animal Production (112000)	(30)	583	1%	32.8%

Source: EMSI 2019.2

Table 6. Top Employers Posting Commercial Cut Flower and Greenhouse Production Occupations in Bay Region and Mid-Peninsula Sub-Region (April 2018 - March 2019)

Employer	Bay	Employer	Bay	Employer	Mid-Peninsula
Brightview	105	Northstar Inc.	12	Brightview	20
Cagwin Dorward	25	University California	12	Life Frames, Inc	12
Cagwin Dorward Landscape	22	Rubicon Programs	11	Greystar	8
Greystar	21	Fs Commercial Landscape Inc.	10	Cagwin Dorward	7
Landcare	21	Gothic Landscape Inc.	10	Arborwell	6
Arborwell	16	Frank And Grossman Landscape Contractors, Inc.	9	City and County of San Francisco	6
Brightview Landscapes, Llc	15	Monster Tree Service	9	Davey Tree Expert Co.	5
Davey Tree Expert Co.	15	A Plus Tree Service	8	Lcs Inc.	5
Monarch Landscape Companies	15	Alameda County Fair Association	8	Magic Gardens Landscaping	5
Winncompanies	15	City and County of San Francisco	8	Northstar Inc.	5
Everything Grows	14	Contra Costa Community College District	8	Sfmta	5
University Of California Berkeley	14	Service Corporation International	8	Abm	4
Fairfield Residential	13	Trench Plate Rental Co.	8	Cagwin Dorward Landscape	4
Fpi Management	13	Brightview Landscape Services	7	Fairfield Residential	4
Lcs Inc.	13	Fairfield Residential Llc	7	Korotkin Associates	4
Magic Gardens Landscaping	13	Lennar Corporation	7	Peninsula Golf Country Club	4
Stanford University	13	Philco Building Maintenance	7	Presidio Inc.	4
Abm	12	Pinnacle Property Management Services	7	US Government	4
Life Frames, Inc	12	ServiceMaster	7	University San Francisco	4

Source: Burning Glass

Educational Supply

There are six community colleges in the Bay Region issuing 60 awards on average annually (last 3 years) on TOP 0109.00 – Horticulture. There are no colleges in the Mid-Peninsula Sub-Region issuing awards on this TOP code.

Commercial Cut Flower and Greenhouse Production Occupations in 12 County Bay Region and in Mid-Peninsula Sub-Region, 2019

Table 7. Awards on TOP 0109.00 - Horticulture in the Bay Region

College	Sub-Region	Associates	Certificates	Noncredit	Total
Cabrillo	Santa Cruz & Monterey	8	12		20
Diablo Valley	East Bay		8		8
Foothill	Silicon Valley	12	6		18
Merritt	East Bay		6		6
Monterey	Santa Cruz & Monterey	1	2		3
Solano	North Bay	1	4		5
Total Bay Region		22	38	0	60
Total Mid-Peninsula Sub-Region		0	0	0	0

Source: IPEDS, Data Mart and Launchboard

NOTE: Headcount of students who took one or more courses is for 2016-17. The annual average for awards is 2014-17 unless there are only awards in 2016-17. The annual average for other postsecondary is for 2013-16.

Gap Analysis

Based on the data included in this report, there is a large labor market gap in the Bay region with 15,008 annual openings for the Commercial Cut Flower and Greenhouse Flower occupational cluster and 60 annual (3-year average) awards for an annual undersupply of 14,948 students. In the Mid-Peninsula Sub-Region, there is also a gap with 1,175 annual openings and no annual (3-year average) awards for an annual undersupply of 1,175 students.

Student Outcomes

Table 8. Four Employment Outcomes Metrics for Students Who Took Courses on TOP 0109.00 - Horticulture

2015-16	Bay (All CTE Programs)	City College of San Francisco (All CTE Programs)	State (0109.00)	Bay (0109.00)	Mid-Peninsula (0109.00)	City College of San Francisco (0109.00)
% Employed Four Quarters After Exit	74%	73%	53%	54%	70%	70%
Median Quarterly Earnings Two Quarters After Exit	\$10,550	\$10,170	\$7,747	\$8,438	\$12,051	\$12,051
Median % Change in Earnings	46%	50%	42%	42%	64%	64%
% of Students Earning a Living Wage	63%	55%	47%	50%	55%	55%

Source: Launchboard Pipeline (version available on 4/29/19)

Skills, Certifications and Education

Table 9. Top Skills for Commercial Cut Flower and Greenhouse Production Occupations in Bay Region (April 2018 - March 2019)

Skill	Postings	Skill	Postings	Skill	Postings
Repair	623	Painting	87	Power Saws	58
Irrigation Systems	256	Budgeting	80	Occupational Health and Safety	57
Power Tools	238	Carpentry	74	Digging Trenches	52
Hand Tools	213	Masonry	74	Weed Eaters	51
Cleaning	210	Plumbing	74	Snow Removal	49
Oral Irrigation	200	Laundry	72	Hand Saws	47
Debris and Litter Control	199	Chain Saws	69	Rototillers	47
Lifting Ability	193	Heavy Lifting	69	Floral Design	46
Fertilizers	180	Lawnmowers	65	Lawn Care	46
Customer Service	174	Predictive / Preventative Maintenance	65	Quality Assurance and Control	45

Commercial Cut Flower and Greenhouse Production Occupations in 12 County Bay Region and in Mid-Peninsula Sub-Region, 2019

Scheduling	148	Irrigation (Agriculture)	63	Plant Identification	44
Machinery	137	Staff Management	62	Employee Training	39
Landscaping	117	Equipment Operation	61	Personal Protective Equipment (PPE)	39
Herbicides	112	Forklift Operation	60	Riding Mowers	39
Customer Contact	99	Supervisory Skills	60	Record Keeping	36

Source: Burning Glass

Table 10. Certifications for Commercial Cut Flower and Greenhouse Production Occupations in the Bay Region (April 2018 - March 2019)

Note: 56% 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.

Certification	Postings	Certification	Postings
Driver's License	829	Certified Back-Flow Tester	4
Cdl Class C	36	Certified in Small Engine Repair	4
Pest Control Applicator	31	Irrigation Design Certification	4
Certified Pest Control	15	Master Gardener Certification	4
Back-Flow Certification	8	Security Clearance	4
First Aid Cpr Aed	8	Small Engine	4
Forklift Operator Certification	8	Certified Applicator	3
Air Brake Certified	7	Certified Pool/Spa Operator	3
Applicators License	7	Makeup Artist	3
Certified Arborist	7	Adobe Photoshop Certificate	2
Certified Landscape Irrigation Auditor	7	Ca License	2
Leadership In Energy And Environmental Design (LEED) Certified	7	Certified Commercial Applicator	2
Phlebotomy Certification	7	Certified Nursery Certificate	2
CDL Class A	6	Food Handler Certification	2
Certified Landscape Technician	6	Adult Education Certificate	1
Certified Teacher	6	Aquatic Facility Operator	1
Contractors License	5	Blue Flag Certification	1
Backflow Tester Certification	4	Business License	1
Cdl Class B	4	Casino Gaming License	1

Source: Burning Glass

Table 11. Education Requirements for Commercial Cut Flower and Greenhouse Production Occupations in Bay Region

Note: 70% of records have been excluded because they do not include a degree level. As a result, the chart below may not be representative of the full sample.

Education (minimum advertised)	Latest 12 Mos. Postings
High school or vocational training	514 (87%)
Associate Degree	19 (3%)
Bachelor's Degree or Higher	59 (10%)

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

Commercial Cut Flower and Greenhouse Production Occupations in 12 County Bay Region and in Mid-Peninsula Sub-Region, 2019

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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