

**Labor Market Assessment: 0109.00 – Horticulture
Cannabis Operations (Associate Degree)
Cannabis Level 1 & 2 (Certificates)**
Los Angeles Center of Excellence, April 2022

Summary

Program Endorsement:	Endorsed: All Criteria Met <input checked="" type="checkbox"/>	Endorsed: Some Criteria Met <input type="checkbox"/>	Not Endorsed <input type="checkbox"/>
Program Endorsement Criteria			
Supply Gap:	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Living Wage: (Entry-Level, 25th)	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Education:	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Emerging Occupation(s)			
	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	

The Los Angeles Center of Excellence for Labor Market Research (LA COE) prepared this report to provide regional labor market supply and demand data related to two occupations:

- *Sales representatives, wholesale and manufacturing, technical and scientific products (41-4011); and*
- *Farmworkers and laborers, crop, nursery, and greenhouse (45-2092).*

Middle-skill occupations typically require some postsecondary education, but less than a bachelor’s degree.¹ Although the occupation, *sales representatives, wholesale and manufacturing, technical and scientific products*, typically requires a bachelor’s degree, it is considered middle-skill because approximately one-third of workers in the field have completed some college or an associate degree. This report is intended to help determine whether there is demand in the local labor market that is not being met by the supply from community college programs that align with the relevant occupations.

Based on the available data, there appears to be a supply gap for these two occupations in the region. In addition to the majority of annual openings having entry-level wages that exceed the self-sufficiency standard wage in both Los Angeles and Orange counties, the occupation with the majority of annual openings (*sales representatives, wholesale and manufacturing, technical and scientific products*) has at least 31% of workers in the field who have completed some college or an associate degree. **Due to all of the criteria being met, the LA COE endorses this proposed program.** Detailed reasons include:

¹ The COE classifies middle-skill jobs as the following:

- All occupations that require an educational requirement of some college, associate degree or apprenticeship;
- All occupations that require a bachelor’s degree, but also have more than one-third of their existing labor force with an educational attainment of some college or associate degree; or
- All occupations that require a high school diploma or equivalent or no formal education, but also require short- to long-term on-the-job training where multiple community colleges have existing programs.

Demand:

- **Supply Gap Criteria** – Over the next five years, there is projected to be **1,760 jobs available annually** in the region due to retirements and workers leaving the field, **which is more than the 86 awards conferred annually** by educational institutions in the region.
 - However, *sales representatives, wholesale and manufacturing, technical and scientific products* (SOC 41-4011) includes a variety of sales occupations, including cannabis sales. Since the SOC does not solely represent cannabis-related sales representatives, **the number of annual job openings is overstated.**
 - Over the past 12 months, there were **8,749 cannabis-related job postings, and 25 cannabis-related job postings for the occupations in this report.**
- **Living Wage Criteria** – In Los Angeles County, the **majority (58%) of annual job openings** for these occupations have **entry-level wages above the self-sufficiency standard hourly wage** (\$18.10/hour).²
- **Educational Criteria** – In the LA/OC region, **61% of the annual job openings** for the occupations of interest **typically require a bachelor's degree.**
 - National-level educational attainment data indicates that between 15% and 31% of workers in the field have completed some college or an associate degree; **the occupation with the majority of annual openings (*sales representatives, wholesale and manufacturing, technical and scientific products*) has at least 31% of workers in the field who have completed some college or an associate degree.**

Supply:

- Between 2017 and 2020, **9 community colleges** in the LA/OC region issued awards in horticulture and/or sales, conferring an average of **86 awards.**
- Over the past three years, no non-community college institutions in the LA/OC region have issued awards in relevant programs.

² Self-Sufficiency Standard wage data was pulled from The Self-Sufficiency Standard Tool for California. For more information, visit: <http://selfsufficiencystandard.org/california>.

Occupational Demand

Exhibit 1 shows the five-year occupational demand projections for the two occupations of interest. In the Los Angeles/Orange County region, the number of jobs related to these occupations is projected to decrease by 4% through 2025. However, there will be nearly 1,800 job openings per year through 2025 due to retirements and workers leaving the field.

NOTE: The occupation, *sales representatives, wholesale and manufacturing, technical and scientific products*, includes many sales occupations and not solely cannabis-related sales representatives. Therefore, the data in Exhibit 1 is overstated for cannabis sales representatives.

This report includes employment projection data by Emsi which uses EDD information. Emsi's projections are modeled on recorded (historical) employment figures and incorporate several underlying assumptions, including the assumption that the economy, during the projection period, will be at approximately full employment. To the extent that a recession or labor shock, such as the economic effects of COVID-19, can cause long-term structural change, it may impact the projections. At this time, it is not possible to quantify the full impact of COVID-19 on projections of industry and occupational employment. Therefore, the projections included in this report do not take the full impacts of COVID-19 into account.

Exhibit 1: Occupational demand in Los Angeles and Orange Counties³

Geography	2020 Jobs	2025 Jobs	2020-2025 Change	2020-2025 % Change	Annual Openings
Los Angeles	10,022	9,636	(386)	(4%)	1,156
Orange	5,437	5,248	(189)	(3%)	603
Total	15,459	14,883	(576)	(4%)	1,760

Wages

The labor market endorsement in this report considers the hourly wages for the occupations of interest in Los Angeles County, as they relate to the county's self-sufficiency standard wage. Orange County wages are included below in order to provide a complete analysis of the LA/OC region. Detailed wage information, by county, is included in Appendix A.

Los Angeles County—The majority (58%) of annual openings for the occupations of interest have entry-level wages above the self-sufficiency standard wage for one adult (\$18.10 in Los Angeles County). Typical entry-level hourly wages are in a range between \$12.23 and \$30.37. While *sales representatives, wholesale and manufacturing, technical and scientific products* typically earn entry-level wages above the self-sufficiency standard wage (\$30.37), *farmworkers and laborers, crop, nursery, and greenhouse* earn \$12.23, which is below the self-sufficiency standard wage. Experienced *sales representatives, wholesale and manufacturing, technical and scientific products* can expect to earn \$60.59, yet experienced *farmworkers and laborers, crop, nursery, and greenhouse* can expect to earn \$16.29 – still below the self-sufficiency standard wage estimate.

³ Five-year change represents new job additions to the workforce. Annual openings include new jobs and replacement jobs that result from retirements and separations.

Orange County—The majority (67%) of annual openings for the occupations of interest have entry-level wages **above** the self-sufficiency standard wage for one adult (\$20.63 in Orange County). Typical entry-level hourly wages are in a range between \$12.04 and \$33.20. While *sales representatives, wholesale and manufacturing, technical and scientific products* typically earn entry-level wages above the self-sufficiency standard wage (\$33.20), *farmworkers and laborers, crop, nursery, and greenhouse* earn \$12.04, which is below the self-sufficiency standard wage. Experienced *sales representatives, wholesale and manufacturing, technical and scientific products* can expect to earn \$65.83, yet experienced *farmworkers and laborers, crop, nursery, and greenhouse* can expect to earn \$15.29 – below the self-sufficiency standard wage estimate.

Job Postings

Sales representatives, wholesale and manufacturing, technical and scientific products

There were 21 online job postings for *sales representatives, wholesale and manufacturing, technical and scientific products* that also mentioned ‘cannabis’ listed in the past 12 months. The highest number of job postings were for cannabis sales executives, sales managers, and cannabis field sales and marketing. The top skills were sales, customer service, and technical sales. The top employers, by number of job postings, in the region were High Tide Organics and VetCBD.

Farmworkers and laborers, crop, nursery, and greenhouse

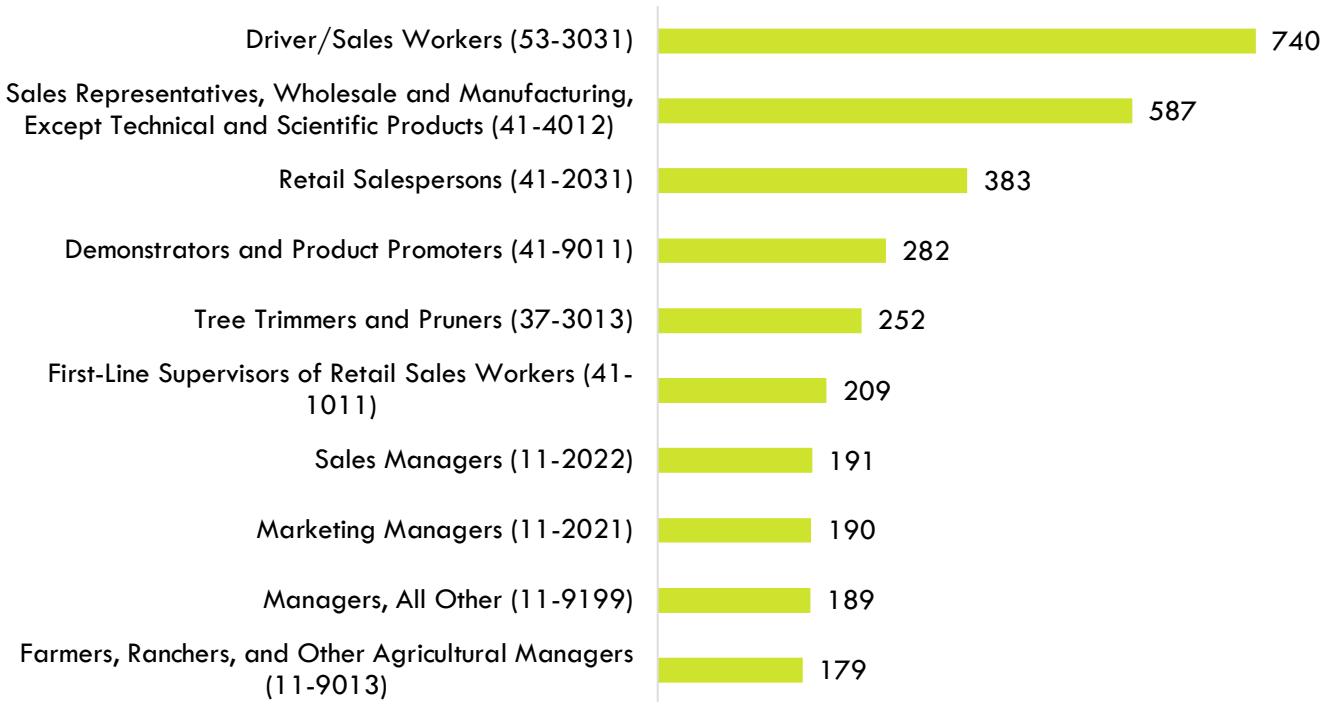
There were 4 online job postings for *farmworkers and laborers, crop, nursery, and greenhouse* that also mentioned ‘cannabis’ listed in the past 12 months. The job postings were for post-harvest production, greenhouse associate, and grower. The top skills were botany, oil extraction, biotechnology, and cleaning. The employers who posted jobs in the region were Vertical Horizon Technology and Flowerhire.

Cannabis Industry Occupations

In the LA/OC region, there were 8,749 online job postings that mentioned ‘cannabis’ in the last 12 month. Exhibit 2 shows the top ten cannabis-related occupations according to job postings. The greatest number of job postings were for *drivers/sales workers* (740 job postings), followed by *sales representatives, wholesale and manufacturing, except technical and scientific products* (587). The top employers, by number of job postings, in the region were Traditional, Flowerhire, and Malibu Gold.

It is important to note that the job postings data included in this section reflects online job postings listed in the past 12 months and does not yet demonstrate the full impact of COVID-19. While employers have generally posted fewer online job postings since the beginning of the pandemic, the long-term effects are currently unknown.

Exhibit 2: Job Postings by Occupation



Educational Attainment

The Bureau of Labor Statistics (BLS) lists the following typical entry-level education levels for the occupations in this report:

- **Bachelor's degree:** *Sales representatives, wholesale and manufacturing, technical and scientific products (41-4011)*
- **No formal educational credential:** *Farmworkers and laborers, crop, nursery, and greenhouse (45-2092)*

In the LA/OC region, the majority of annual job openings (61%) typically require a bachelor's degree. National-level educational attainment data indicates that between 15% and 31% of workers in the field have completed some college or an associate degree; the occupation with the majority of annual openings (*sales representatives, wholesale and manufacturing, technical and scientific products*) has at least 31% of workers in the field who have completed some college or an associate degree.

Educational Supply

Community College Supply—Exhibit 3 shows the annual and three-year average number of awards conferred by community colleges in programs that have historically trained for the occupations of interest. The colleges with the most completions in the region are Orange Coast, Santa Monica, and Saddleback.

Exhibit 3: Regional community college awards (certificates and degrees), 2017-2020

TOP Code	Program	College	2017-18 Awards	2018-19 Awards	2019-20 Awards	3-Year Average
0109.00	Horticulture	El Camino	-	1	10	4
		LA Pierce	13	5	6	8
		Long Beach	11	4	8	8
		Mt San Antonio	4	7	3	5
		LA Subtotal	28	17	27	24
		Fullerton	1	-	2	1
		Orange Coast	9	15	23	16
		Saddleback	16	13	17	15
		OC Subtotal	26	28	42	32
Supply Subtotal/Average			54	45	69	56
0109.30	Nursery Technology	Mt San Antonio	3	8	1	4
		LA Subtotal	3	8	1	4
		Fullerton	3	4	4	4
		OC Subtotal	3	4	4	4
Supply Subtotal/Average			6	12	5	8
0509.40	Sales and Salesmanship	Santa Monica	16	13	19	16
		LA Subtotal	16	13	19	16
		Orange Coast	11	3	5	6
		Santa Ana	1	-	-	0
OC Subtotal			12	3	5	7
Supply Subtotal/Average			28	16	24	23
Supply Total/Average			88	73	98	86

Non-Community College Supply – Over the past three years, no non-community college institutions in the LA/OC region have issued awards in relevant programs.

Appendix A: Occupational demand and wage data by county

Exhibit 4. Los Angeles County

Occupation (SOC)	2020 Jobs	2025 Jobs	5-Yr Change	5-Yr % Change	Annual Openings	Entry-Level Hourly Earnings (25 th Percentile)	Median Hourly Earnings	Experienced Hourly Earnings (75 th Percentile)
Sales Representatives, Wholesale and Manufacturing, Technical and Scientific Products (41-4011)	6,969	6,719	(250)	(4%)	667	\$30.37	\$42.45	\$60.59
Farmworkers and Laborers, Crop, Nursery, and Greenhouse (45-2092)	3,053	2,917	(136)	(4%)	489	\$12.23	\$13.67	\$16.29
Total	10,022	9,636	(386)	(4%)	1,156			

Exhibit 5. Orange County

Occupation (SOC)	2020 Jobs	2025 Jobs	5-Yr Change	5-Yr % Change	Annual Openings	Entry-Level Hourly Earnings (25 th Percentile)	Median Hourly Earnings	Experienced Hourly Earnings (75 th Percentile)
Sales Representatives, Wholesale and Manufacturing, Technical and Scientific Products (41-4011)	4,191	4,116	(75)	(2%)	403	\$33.20	\$46.26	\$65.83
Farmworkers and Laborers, Crop, Nursery, and Greenhouse (45-2092)	1,246	1,132	(114)	(9%)	200	\$12.04	\$12.85	\$15.29
Total	5,437	5,248	(189)	(3%)	603			

Exhibit 6. Los Angeles and Orange Counties

Occupation (SOC)	2020 Jobs	2025 Jobs	5-Yr Change	5-Yr % Change	Annual Openings	Typical Entry-Level Education
Sales Representatives, Wholesale and Manufacturing, Technical and Scientific Products (41-4011)	11,160	10,835	(325)	(3%)	1,071	Bachelor's degree
Farmworkers and Laborers, Crop, Nursery, and Greenhouse (45-2092)	4,299	4,048	(251)	(6%)	689	No formal educational credential
Total	15,459	14,883	(576)	(4%)	1,760	-

Appendix B: Sources

- O*NET Online
- Labor Insight/Jobs (Burning Glass)
- Economic Modeling Specialists, International (Emsi)
- Bureau of Labor Statistics (BLS)
- California Employment Development Department, Labor Market Information Division, OES
- California Community Colleges Chancellor's Office Management Information Systems (MIS)
- Self-Sufficiency Standard at the Center for Women's Welfare, University of Washington
- Chancellor's Office Curriculum Inventory (COCI 2.0)

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