

Program Endorsement Brief: 0109.00/Horticulture Urban Farming

Los Angeles/Orange County Center of Excellence, February 2019

Introduction:

The Orange County Center of Excellence for Labor Market Research (COE) prepared this report to provide regional labor market supply and demand data related to horticulture, **specifically, urban farming**. 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 relevant occupations.

The Food and Agriculture Organization of the United Nations reports that 800 million people worldwide grow vegetables or fruits or raise animals in cities, which equates to 15-20% of the world's food. The U.S. Department of Agriculture does not currently track the number of urban farmers, so determining the occupational demand is difficult using traditional labor market data. However, the USDA affirms that urban farming is a growing industry based on demand for federal programs that fund urban farming education and infrastructure.¹

According to the United States Environmental Protection Agency's Urban Farm Business Plan Business Handbook², workforce needs for urban farms include operations jobs such as farm management and farm workers, as well as many other non-agricultural jobs such as marketing, sales, distribution, administration, and financial support. While an urban farm manager may be a full-time paid position, some urban farm worker positions may be voluntary (including not-for-profit or community/school farms), and require little prior knowledge, skill or education.

Summary:

Traditional labor market data sources do not separate urban farming data from traditional farming; therefore, it is difficult to determine the actual demand for urban farming occupations, as well as the number of students needed to fill these positions. Because there is not a Standard Occupational Classification (SOC) code that directly translates to the work for which this proposed program will prepare students, three related occupations ("Farmers, Ranchers, and Other Agricultural Managers", "First-Line Supervisors of Landscaping, Lawn Service, and Groundskeeping Workers", and "Farmworkers and Laborers, Crop, Nursery, and Greenhouse") will be analyzed in this report using traditional labor market information and real-time job postings data. It should be noted that figures in the following exhibits are not exclusive to the jobs for which this proposed program prepares students.

¹ <https://www.greenbiz.com/article/urban-farms-now-produce-15-worlds-food>

² https://www.epa.gov/sites/production/files/2015-10/documents/1.urban_farm_business_plan_handbook_091511_508.pdf

The following summarizes key findings from this data brief:

- Urban farming-related occupations are projected to **decrease by 9% through 2022**. Nearly **1,450 job openings** will be available annually due to new job growth and replacement need.
- In 2018, there were **77 online job postings** for urban farming-related occupations in Los Angeles and Orange Counties.
- **Zero related program recommendation requests under the same TOP Code** were received between January and December 2018. However, there was one program recommendation request with the same program name.
- Between 2014 and 2017, community colleges in the region conferred an average of **69 awards annually** (associate degrees and certificates) in related training programs under the same TOP Code.

Occupational Demand—Exhibit 1 shows the five year occupational demand projections for urban farming-related occupations. In Los Angeles/Orange County, the number of jobs related to urban farming is projected to decline by 9% through 2022. There will be nearly 1,450 job openings per year through 2022.

Exhibit 1: Occupational demand in Los Angeles and Orange Counties³

Geography	2017 Jobs	2022 Jobs	2017-2022 Change	2017-2022 % Change	Annual Openings
Los Angeles	8,965	8,230	(735)	(8%)	1,045
Orange	3,596	3,168	(428)	(12%)	1,964
Total	12,562	11,398	(1,164)	(9%)	1,448

Wages—Entry-level and median hourly wages for Urban Farming-related occupations are \$11.91 and \$14.21, respectively. Entry-level wages for Urban Farming-related occupations are lower than the MIT Living hourly wage estimate for one adult in the region (\$13.51 in Los Angeles County and \$15.31 in Orange County). Experienced workers earn between \$16.29 and \$39.56, which is higher than the living wage estimate. Regional average wages are above the average statewide wage of \$14.26 for these occupations. Wage information, by county, is included in Appendix A.

Job Postings—In order to identify job postings closely related to urban farming, the following keywords/search terms were used across all occupations and industries: urban farm*, agricult*, and horticult*. There were 77 online job postings related to urban farming listed in the past 12 months. The highest number of job postings are for agricultural chemical sprayer, agricultural inspector, and manager, agriculture industry. Top specialized skills are: scheduling, customer service, and repair. The top three employers, by number of job postings, in the region are: Los Angeles County, The Farm Project, and Cal Poly Pomona Foundation.

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.

Educational Attainment—The Bureau of Labor Statistics (BLS) lists no formal educational credential or high school diploma or equivalent as the typical entry-level education required for these occupations. The national-level educational attainment data indicates that between 12.9% and 33.6% of workers in the field have completed some college or an associate degree. In Los Angeles/Orange County, 13% of job postings request a high school diploma and 6% request an associate’s degree; however, 87% of postings did not include a specified level of education.

Community College Supply –Exhibit 2 shows the three-year average number of awards conferred by community colleges in the related TOP code: Horticulture (0109.00). The colleges/programs with the most completions in the region are: Saddleback and Orange Coast. Though the other colleges listed in the table below have programs with the same TOP code, none of those programs have a specific emphasis on preparing students for urban farming. Between January and December 2018, there were no other related program recommendation requests from regional community colleges.

Exhibit 2: Regional community college awards (certificates and degrees), 2014-2017

TOP Code	Program	College	2014-15 Awards	2015-16 Awards	2016-2017 Awards	3-Year Award Average
0109.00	Horticulture	El Camino	7	9	9	8
		Fullerton	3	5	3	4
		LA Pierce	8	7	2	6
		Long Beach	4	6	7	6
		Mt San Antonio	20	12	4	12
		Orange Coast	13	11	15	13
		Saddleback	26	13	24	21
		Total/Average	81	63	64	69

Appendix A: Occupational demand and wage data by county

Exhibit 3. Los Angeles County

Occupation (SOC)	2017 Jobs	2022 Jobs	5-Yr Change	5-Yr % Change	Annual Openings	Entry-Level Hourly Earnings	Median Hourly Earnings	Experienced Hourly Earnings
Farmers, Ranchers, and Other Agricultural Managers (11-9013)	944	773	(171)	(18%)	62	\$9.07	\$13.51	\$37.54
First-Line Supervisors of Landscaping, Lawn Service, and Groundskeeping Workers (37-1012)	3,774	3,837	63	2%	392	\$13.87	\$16.62	\$38.66
Farmworkers and Laborers, Crop, Nursery, and Greenhouse (45-2092)	4,247	3,620	(627)	(15%)	591	\$10.50	\$11.71	\$17.50
Total	8,965	8,230	(735)	(8%)	1,045			

Exhibit 4. Orange County

Occupation (SOC)	2017 Jobs	2022 Jobs	5-Yr Change	5-Yr % Change	Annual Openings	Entry-Level Hourly Earnings	Median Hourly Earnings	Experienced Hourly Earnings
Farmers, Ranchers, and Other Agricultural Managers (11-9013)	316	188	(128)	(41%)	19	\$9.09	\$13.43	\$60.47
First-Line Supervisors of Landscaping, Lawn Service, and Groundskeeping Workers (37-1012)	1,771	1,804	33	2%	177	\$14.58	\$19.58	\$40.01
Farmworkers and Laborers, Crop, Nursery, and Greenhouse (45-2092)	1,509	1,176	(333)	(22%)	208	\$10.50	\$11.22	\$14.37
Total	3,596	3,168	(428)	(12%)	403			

Exhibit 5. Los Angeles and Orange Counties

Occupation (SOC)	2017 Jobs	2022 Jobs	5-Yr Change	5-Yr % Change	Annual Openings	Entry-Level Hourly Earnings	Median Hourly Earnings	Experienced Hourly Earnings
Farmers, Ranchers, and Other Agricultural Managers (11-9013)	1,261	961	(300)	(24%)	81	\$9.15	\$13.47	\$38.88
First-Line Supervisors of Landscaping, Lawn Service, and Groundskeeping Workers (37-1012)	5,546	5,641	95	2%	569	\$14.00	\$17.12	\$39.56
Farmworkers and Laborers, Crop, Nursery, and Greenhouse (45-2092)	5,755	4,796	(959)	(17%)	798	\$10.50	\$11.57	\$16.29
Total	12,562	11,398	(1,164)	(9%)	1,448			

Appendix B: Sources

- O*NET Online
- Labor Insight/Jobs (Burning Glass)
- Economic Modeling Specialists, International (EMSI)
- Bureau of Labor Statistics (BLS)
- Employment Development Department, Labor Market Information Division, OES
- Employment Development Department, Unemployment Insurance Dataset
- Living Insight Center for Community Economic Development
- California Community Colleges Chancellor’s Office Management Information Systems (MIS)
- MIT Living Wage
- Chancellor’s Office Curriculum Inventory (COCI 2.0)

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