

# Occupations Report



## For the Agriculture/Farming Sector



Prepared for the Monterey County Workforce Development Board  
Data Source: JobsEQ May 2017

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# Agriculture in Monterey County



Monterey County is recognized as the Salad Bowl of the World. Its temperate climate, rich soils, and unparalleled infrastructure support system make this the ideal growing area for cool season vegetables, wine grapes, strawberries and flowers. The County is also the home of the packaged salad and pre-cut fresh vegetables, representing 90% market share of the fresh vegetable value added industry. Because the agriculture here is year-round and highly labor intensive, Monterey County has the State's highest agricultural payroll.

- **Farming supports local families** - nearly 1 in 4 households relies on income related to agriculture which supports 76,054 jobs.
- **Farming supports the local economy** - Agriculture contributes over \$4.49 billion per year to Monterey County's economic output, with a total estimated impact of over \$8.1 billion on the local economy.
- **Monterey County feeds our Nation** - crops grown in Monterey County supply large percentages of total national pounds produced each year: 61% of leaf lettuce, 57% of celery, 56% of head lettuce, 48% of broccoli, 38% of spinach, 30% of cauliflower, 28% of strawberries, and 3.6% of wine grapes.
- **Farming provides a healthy local food supply** – Monterey County farmers are among the most productive and efficient in the world growing more than 150 crops.

(Source: Farm Bureau Monterey County)



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June 22, 2017  
Section A



## **Occupation Report for Farmworkers and Laborers, Crop, Nursery, and Greenhouse Monterey County, California**



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# Definition of 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).

## Occupation Snapshot

As of 2017Q1, total employment for Farmworkers and Laborers, Crop, Nursery, and Greenhouse in Monterey County, California was 37,197. Over the past three years, this occupation added 3,134 jobs in the region and is expected to increase by 1,561 jobs over the next seven years, or at an annual average rate of 0.6%.

Occupation Snapshot of Farmworkers and Laborers, Crop, Nursery, and Greenhouse in Monterey County, California											
Current					Historical		Forecast				
Four Quarters Ending with 2017q1			2017q1		Total Change over the Last 3 Years	Avg Ann % Chg in Empl 2014q1-2017q1	Over the Next 7 Years				
Empl	Avg. Annual Wages <sup>1</sup>	Location Quotient	Unempl	Unempl Rate	Empl	Monterey County, California	Current Online Job Ads <sup>2</sup>	Total Repl Demand	Total Growth Demand	Avg. Annual Growth Percent	
37,197	\$25,600	49.39	7,167	17.8%	3,134	3.0%	4	7,045	1,561	0.6%	

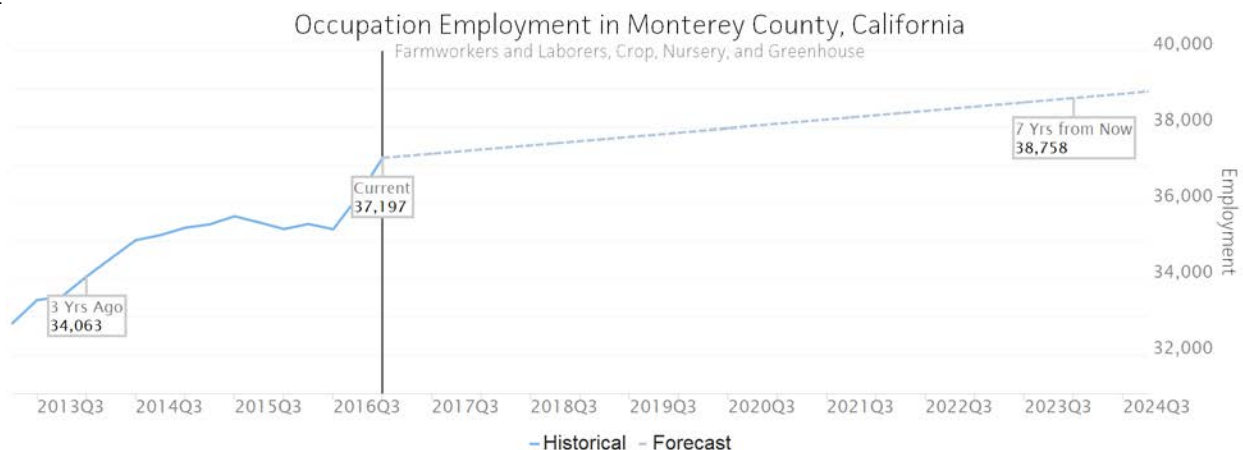
Source: JobsEQ®

Data as of 2017Q1 unless noted otherwise

Note: Figures may not sum due to rounding.

1. Occupation wages are as of 2016 and should be taken as the average for all Covered Employment

2. Data represent found online ads active within the last thirty days in any zip code intersecting or within the selected region; data represents a sampling rather than the complete universe of postings.

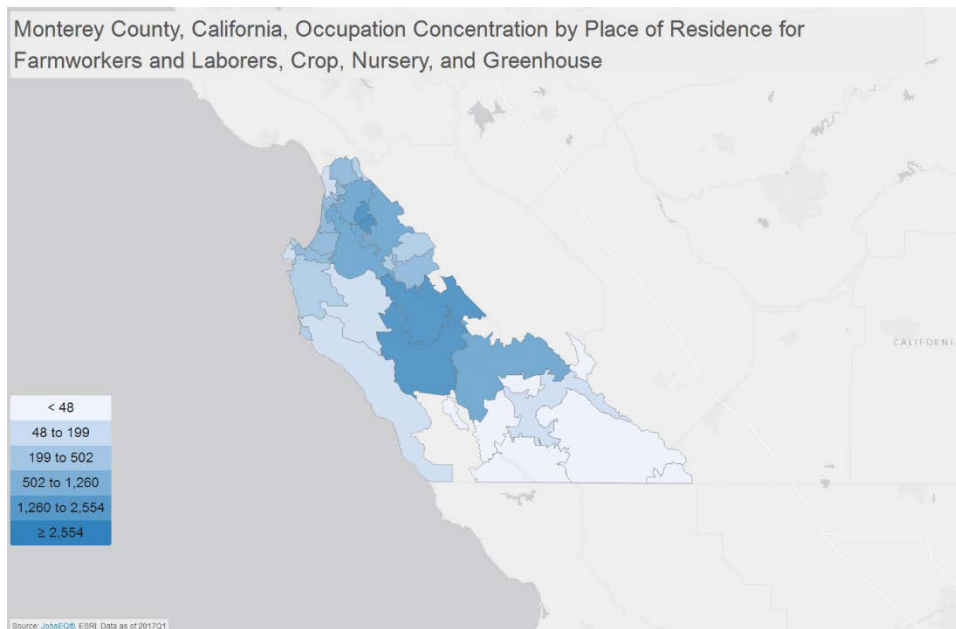
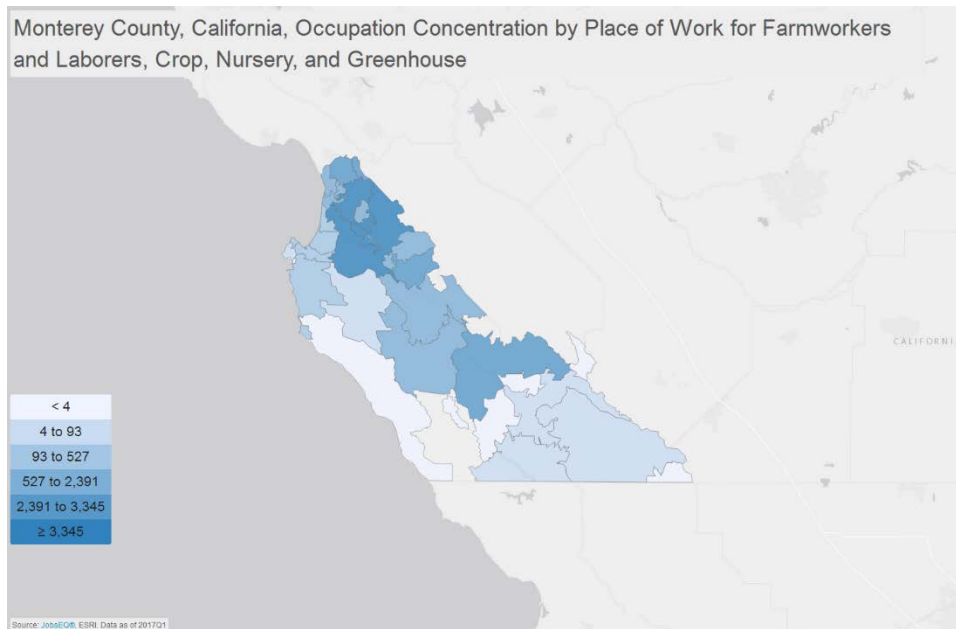


Source: JobsEQ®. Data as of 2017Q1. The shaded areas represent national recessions.

Occupation employment data are estimated via industry employment data and the industry/occupation mix. Industry employment data are derived from the Quarterly Census of Employment and Wages, provided by the Bureau of Labor Statistics and currently updated through 2016Q3, imputed where necessary with preliminary estimates updated to 2017Q1. Wages by occupation are as of 2016 provided by the BLS and imputed where necessary. Forecast employment growth uses national projections from the Bureau of Labor Statistics adapted for regional growth patterns. Occupation unemployment figures are imputed by Chmura.

# Geographic Distribution

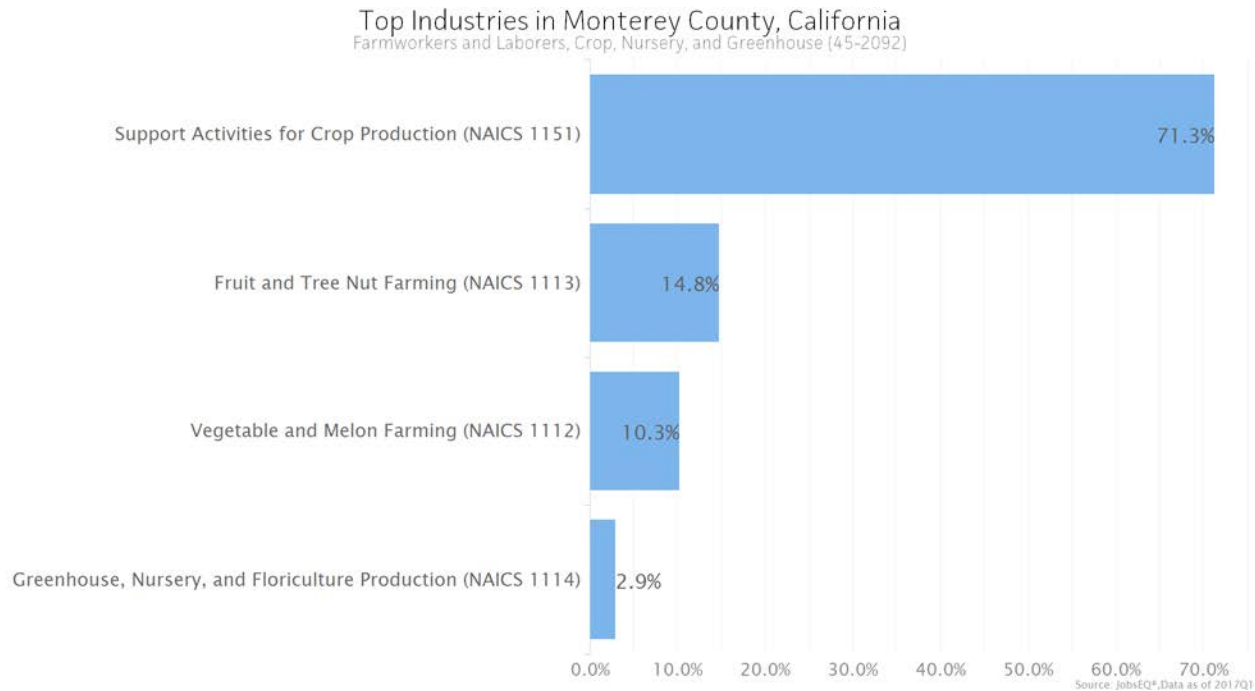
The below maps illustrate the ZCTA-level distribution of employed Farmworkers and Laborers, Crop, Nursery, and Greenhouse in Monterey County, California. Employment is shown by place of work and by residence.



Occupation employment data are estimated via industry employment data and the industry/occupation mix. Industry employment data are derived from the Quarterly Census of Employment and Wages, provided by the Bureau of Labor Statistics and currently updated through 2016Q3, imputed where necessary with preliminary estimates updated to 2017Q1. Occupation by residence data are derived from the same in addition to commuting pattern data.

# Employment by Industry

The following chart and table illustrate the industries in Monterey County, California which most employ Farmworkers and Laborers, Crop, Nursery, and Greenhouse. The single industry most employing this occupation in the region is Support Activities for Crop Production, NAICS 1151. This industry employs 26,514 Farmworkers and Laborers, Crop, Nursery, and Greenhouse—employment which is expected to increase by 2,892 jobs over the next ten years; furthermore, 7,415 additional new workers in this occupation will be needed for this industry due to replacement demand, that is, to replace workers in this occupation and industry that retire or move into a different occupation.



Occupation employment data are estimated via industry employment data and the industry/occupation mix. Industry employment data are derived from the Quarterly Census of Employment and Wages, provided by the Bureau of Labor Statistics and currently updated through 2016Q3, imputed where necessary with preliminary estimates updated to 2017Q1.

Top Industry Distribution for Farmworkers and Laborers, Crop, Nursery, and Greenhouse (45-2092) in Monterey County, California					
NAICS Code	Industry Title	Current Occupation Employment	10-Year Repl Demand	10-Year Growth Demand	10-Year Total Demand
1151	Support Activities for Crop Production	26,514	7,415	2,892	10,307
1113	Fruit and Tree Nut Farming	5,485	1,412	-333	1,079
1112	Vegetable and Melon Farming	3,815	982	-231	751
1114	Greenhouse, Nursery, and Floriculture Production	1,089	280	-66	214
	-All Others-	294	76	-12	64

Source: JobsEQ®

Data as of 2017Q1 except wages which are as of 2016. Note that occupation-by-industry wages represent adjusted national data and may not be consistent with regional, all-industry occupation wages shown elsewhere in JobsEQ.

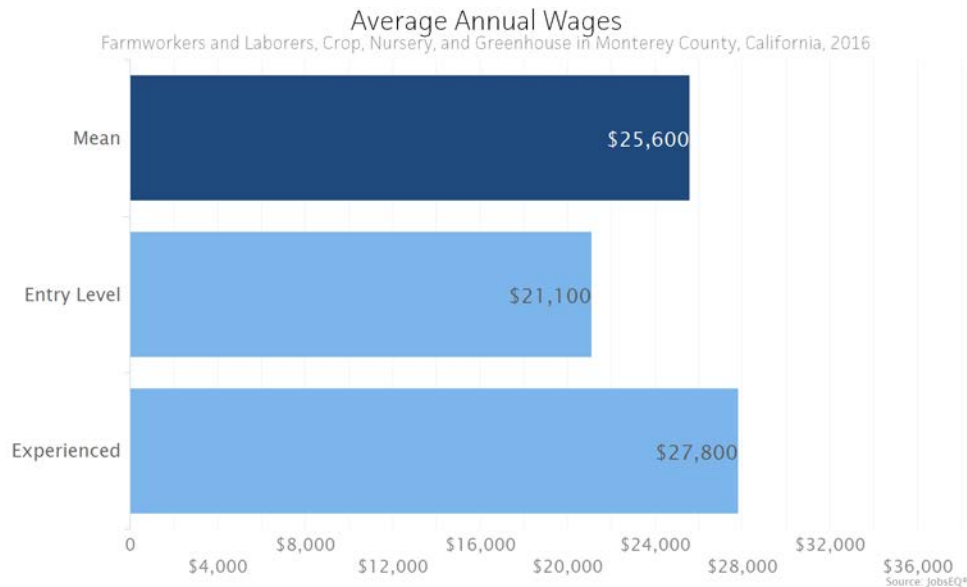
Note: Figures may not sum due to rounding.

Occupation employment data are estimated via industry employment data and the industry/occupation mix. Industry employment data are derived from the Quarterly Census of Employment and Wages, provided by the Bureau of Labor Statistics and currently updated through 2016Q3, imputed where necessary with preliminary estimates updated to 2017Q1. Forecast employment growth uses national projections from the Bureau of Labor Statistics adapted for regional growth patterns.



# Wages

The average (mean) annual wage for Farmworkers and Laborers, Crop, Nursery, and Greenhouse was \$25,600 in Monterey County, California as of 2016. For the same year, average entry level wages were approximately \$21,100 compared to an average of \$27,800 for experienced workers.



Occupation wages (mean, median, and percentiles) are as of 2016 provided by the BLS, modified and imputed by Chmura where necessary. Entry-level and experienced wages are derived from these source data, computed by Chmura.

# Education Profile

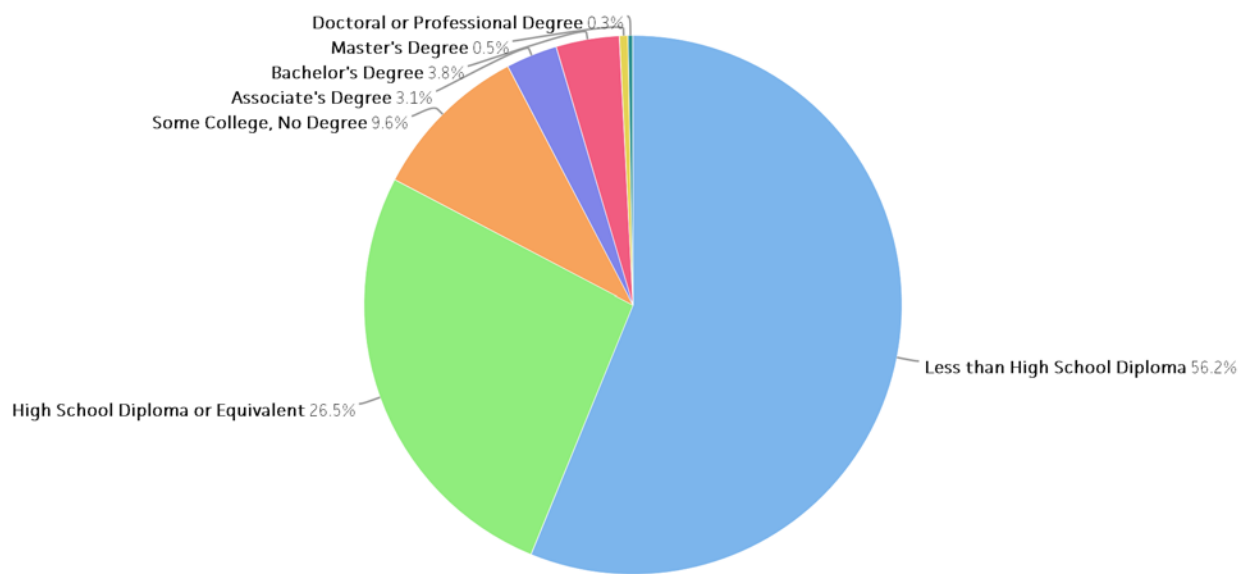
Typical education and training requirements for Farmworkers and Laborers, Crop, Nursery, and Greenhouse are described below.

Education and Training Requirements	
Typical Entry-Level Education:	Less than high school
Previous Work Experience:	None
Typical On-the-Job Training:	Short-term on-the-job training

Source: JobsEQ®

The below education mix for Farmworkers and Laborers, Crop, Nursery, and Greenhouse is estimated from national survey data.

Educational Attainment Profile, Age 25+



Source: JobsEQ®

Education and training requirements as well as educational attainment mix data are from the Bureau of Labor Statistics.

the above.

# FAQ

## What is SOC?

The Standard Occupational Classification system (SOC) is used to classify workers into occupational categories. All workers are classified into one of over 840 occupations according to their occupational definition. To facilitate classification, occupations are combined to form 23 major groups, 97 minor groups, and 461 occupation groups. Each occupation group includes detailed occupations requiring similar job duties, skills, education, or experience.

## What is a location quotient?

A location quotient (LQ) is a measurement of concentration in comparison to the nation. An LQ of 1.00 indicates a region has the same concentration of an occupation (or industry) as the nation. An LQ of 2.00 would mean the region has twice the expected employment compared to the nation and an LQ of 0.50 would mean the region has half the expected employment in comparison to the nation.

## What is training concentration?

The training concentration analysis compares local postsecondary training output compared to the national norm. Let's consider registered nurses as an example. If in the nation, one RN award is granted for every ten RNs employed, that 1:10 ratio is the national norm. If in your region your schools also grant one RN award for every ten RNs employed, then your region will be right at the national norm, or we say at 100% of the national norm which is termed a 100% training concentration. If your region grants two RN awards for every ten employed, your region would be at twice the national norm or have a 200% training concentration. Similarly, if your region grants one RN award for every twenty employed, your region would be at half the national norm or have a 50% training concentration.

## What is the program-to-occupation crosswalk?

Training programs are classified according to the Classification of Instructional Programs (CIP codes). For relating training programs, this report uses a modified version of the CIP to SOC crosswalk from the National Center for Education Statistics (NCES). While this is a very helpful crosswalk for estimating occupation production from training program awards data, the crosswalk is neither perfect nor comprehensive. Indeed, it is hard to imagine such a crosswalk being perfect since many training program graduates for one reason or another do not end up employed in occupations that are most related to the training program from which they graduated. Therefore, the education program analyses should be considered in this light.

As an example of the many scenarios that may unfold, consider a journalism degree that crosswalks into three occupations: editors, writers, and postsecondary communications teachers. Graduates with a journalism degree may get a job in one of these occupations—and that may be the most-likely scenario—but a good number of these graduates may get a job in a different occupation altogether (the job may be somewhat related, such as a reporter, or the job may be totally unrelated, such as a real estate agent). Furthermore, a graduate may stay in school or go back to school for a degree that will lead to other occupation possibilities. Still another possibility includes the graduate not entering the labor market (maybe being unemployed, being a non-participant, or moving to another region).

## What is replacement demand?

Replacement demand is the number of jobs required due to replacements—retirements and turnover resulting from workers moving from one occupation into another. Note that replacement demand does not include all turnover—it does not include when workers stay in the same occupation but switch employers. The replacement demand shown in this report may also be understated; thus, it can be taken to be a minimum measure of the number of workers who will need to be trained for the occupation due to replacements. The total projected demand for an occupation is the sum of the replacement demand and the growth demand (which is the increase or decrease of jobs in an occupation expected due to expansion or contraction of the overall number of jobs in that occupation).

## What is NAICS?

The North American Industry Classification System (NAICS) is used to classify business establishments according to the type of economic activity. The NAICS Code comprises six levels, from the “all industry” level to the 6-digit level. The first two digits define the top level category, known as the “sector,” which is the level examined in this report.

## About This Report

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