May 2018

LABOR MARKET ANALYSIS

Agricultural Science & Food Safety

CALIFORNIA COMMUNITY COLLEGES
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FOR **JOBS** AND THE **ECONOMY**

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Prepared by the Central Valley/Mother Lode Center of Excellence

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SUMMARY

This study examined labor market demand, wages, skills and community college supply for occupations related to agricultural science and food safety. Four occupations were identified: Farmers, ranchers and other agriculture managers (SOC 11-9013), food scientists and technologists (SOC 19-1012), agricultural and food science technicians (SOC 19-4011) and first-line supervisors of farming, fishing and forestry workers (SOC 45-1011).

KEY FINDINGS:

- **Occupational demand —** The largest occupation is farmers, ranchers and other agricultural managers with 5,416 workers in 2017 and 397 annual openings, followed by first-line supervisors of farming, fishing and forestry workers with 1,213 workers and 164 annual openings.

- **Wages —** The highest paid occupations are food scientists and technologists, followed by agricultural and food science technicians. All five occupations exceed the region's self-sufficiency wage.

- **Employers —** Top employers in the region include Trinchero Family Estates, Cedr Training District and Crystal Cream Butter Company.

- **Job titles —** The most common occupational titles in job postings were farm and ranch managers and food scientists and technologists. The most common job titles were enologist and feeder.

- **Skills and certifications —** The top baseline skill requirement is communication skills, and the top specialized skill is quality control analysis. The top certification is a driver's license.

- **Education —** The education required for the four occupations studied varies from a bachelor's degree for food scientists and technologists to a high school diploma or equivalent for farmers, ranchers and other agricultural managers.

- **Supply —** Analysis of community college completions in the region shows that on average, 72 certificates and 198 degrees are conferred each year related to the four occupations analyzed in this study.

Based on a comparison of occupational demand and community college supply, there is an undersupply of 454 trained workers in the subregion and 1,754 trained workers in the region. As a result, the Center of Excellence recommends that Modesto Junior College work with the region's agriculture, water and environmental technologies deputy sector navigator, the college's advisory board and local industry in the expansion of its agricultural science and food safety program.

INTRODUCTION

The Central Valley/Mother Lode Center of Excellence was asked by Modesto Junior College to provide labor market information for Taxonomy of Programs (TOP) codes 010100-Agricultural Science and 011300-Food Safety.

Analysis of TOP code-title data provided the expanded titles of Agriculture Technology and Sciences, General for the TOP code 010100 and Food Processing and Related Technology for the TOP code 011300.

Since Modesto Junior College is in Stanislaus County, this analysis focuses on the North Central Valley/Northern Mother Lode (NCV/NML) subregion.

Occupational demand, supply and wage data for the region are also included for broader applicability and use. Analysis of the program and occupational data related to agricultural science and food safety resulted in the identification of four applicable occupations.

The occupational titles and their Standard Occupational Classification (SOC) System codes are:

- Farmers, ranchers and other agriculture managers (SOC 11-9013),

- Food scientists and technologists (SOC 19-1012),

- Agricultural and food science technicians (SOC 19-4011) and

- First-line supervisors of farming, fishing and forestry workers (SOC 45-1011).

The SOC codes, occupational titles, job descriptions, sample job titles, and knowledge and skills from the Bureau of Labor Statistics and O*NET OnLine are shown in Exhibit 1.

It is of note that the first-line supervisors of farming, fishing and forestry workers occupation is broken into several emerging occupations. The two most appropriate for this analysis are:

- First-line supervisors of agricultural crop and horticultural workers (SOC 45-1011.07) and

- First-line supervisors of animal husbandry and animal care workers (SOC 45-1011.08).
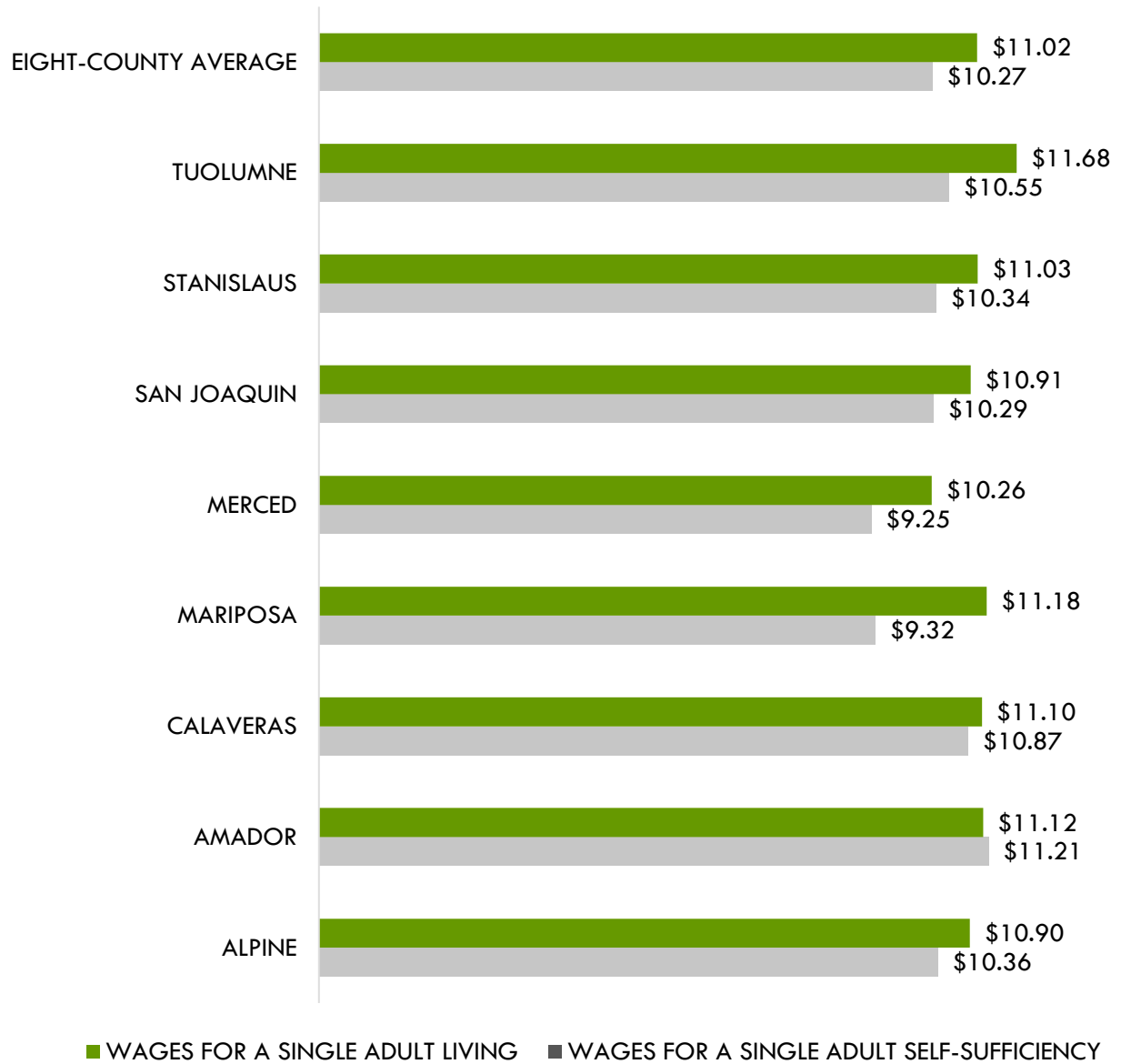
EXHIBIT 1. Agricultural-science-and-food-safety-related SOC titles, job descriptions, sample job titles, and knowledge and skills

SOC TITLE (SOC CODE)	DESCRIPTION	SAMPLE JOB TITLES	KNOWLEDGE AND SKILLS
11-9013.00 - Farmers, Ranchers and Other Agricultural Managers	Plan, direct or coordinate the management or operation of farms, ranches, greenhouses, aquacultural operations, nurseries, timber tracts or other agricultural establishments. May hire, train and supervise farm workers or contract for services to carry out the day-to-day activities of the managed operation. May engage in or supervise planting, cultivating, harvesting and financial and marketing activities.	Farm Manager, Garden Center Manager, Greenhouse Manager, Grower, Harvesting Manager, Horticulturist, Nursery Manager, Perennial House Manager, Production Manager, Propagation Manager	**Knowledge** Administration & Management Production & Processing Personnel & Human Resources Biology Sales & Marketing **Skills** Management of Personnel Resources Speaking Coordination Monitoring Active Listening
19-1012.00 - Food Scientists and Technologists	Use chemistry, microbiology, engineering and other sciences to study the principles underlying the processing and deterioration of foods; analyze food content to determine levels of vitamins, fat, sugar and protein; discover new food sources; research ways to make processed foods safe, palatable and healthful; and apply food science knowledge to determine best ways to process, package, preserve, store and distribute food.	Food Scientist, Food Technologist, Product Development Manager, Product Development Scientist, Professor, Quality Assurance Manager (QA Manager), Research and Development Director (R & D Director), Research and Development Manager (R & D Manager), Research Scientist	**Knowledge** Production & Processing Chemistry Food Production Biology English Language **Skills** Active Listening Reading Comprehension Writing Active Listening Critical Thinking
19-4011.00 - Agricultural and Food Science Technicians	Work with agricultural and food scientists in food, fiber and animal research, production and processing; and assist with animal breeding and nutrition. Conduct tests and experiments to improve yield and quality of crops or to increase the resistance of plants and animals to disease or insects. Includes technicians who assist food scientists or technologists	Agricultural Research Technician, Agricultural Research Technologist, Agricultural Technician, Laboratory Technician (Lab Tech), Research Assistant, Research Associate, Research Specialist, Research Technician, Seed	**Knowledge** Mathematics Biology Chemistry Administration & Management English Language **Skills** Reading Comprehension Active Listening Complex Problem Solving

	in the research and development of production technology, quality control, packaging, processing and use of foods.	Analyst, Senior Agricultural Assistant	Critical Thinking
			Writing
45-1011.07 - First-Line Supervisors of Agricultural Crop and Horticultural Workers	Directly supervise and coordinate activities of agricultural crop or horticultural workers.	Farm Owner Operator, Field Operations Farm Manager, Grower, Harvest Supervisor, Harvesting Supervisor, Head Grower, Orchard Manager, Pest Management Supervisor, Supervisor Grower, Team Foreman	**Knowledge**
			Production & Processing
			Administration & Management
			Biology
			Education & Training
			Food Production
			Skills
			Active Listening
			Judgment & Decision Making
			Critical Thinking
			Monitoring
			Coordination
45-1011.08 - First-Line Supervisors of Animal Husbandry and Animal Care Workers	Directly supervise and coordinate activities of animal husbandry or animal care workers.	Animal Care Supervisor, Animal Caretaker Supervisor, Broiler Supervisor, Cattle Manager, Facility Manager, Facility Supervisor, Feed Manager, Horse Farm Manager, Research Animal Facility Supervisor, Sow Farm Manager	**Knowledge**
			Administration & Management
			English Language
			Education & Training
			Psychology
			Customer & Personal Service
			Skills
			Management of Personnel Resources
			Active Listening
			Coordination
			Critical Thinking
			Judgment & Decision Making

The 2014 average self-sufficiency wage for a single adult in the North Central Valley/Northern Mother Lode (NCV/NML) subregion is $10.27/hour, and the current average living wage for a single adult is $11.02/hour. Self-sufficiency and living wage data by county and the overall eight-county average are shown in Exhibit 2. In the wages sections of this report, Pct.10 hourly denotes entry-level wages, and median represents experienced wages.

EXHIBIT 2. Self-sufficiency and living wages in the NCV/NML subregion

County	Wages for a single adult living	Wages for a single adult self-sufficiency
EIGHT-COUNTY AVERAGE	$11.02	$10.27
TUOLUMNE	$11.68	$10.55
STANISLAUS	$11.03	$10.34
SAN JOAQUIN	$10.91	$10.29
MERCED	$10.26	$9.25
MARIPOSA	$11.18	$9.32
CALAVERAS	$11.10	$10.87
AMADOR	$11.12	$11.21
ALPINE	$10.90	$10.36

■ WAGES FOR A SINGLE ADULT LIVING ■ WAGES FOR A SINGLE ADULT SELF-SUFFICIENCY

OCCUPATIONAL DEMAND

The subregion employed 7,143 agricultural science and food safety workers in 2017 in the North Central Valley/Northern Mother Lode subregion (Exhibit 3).

The largest occupation is farmers, ranchers and other agricultural managers with 5,416 workers in 2017. Although this occupation is expected to decline by 2% over the next five years, it still has the greatest number of projected annual openings, 397.

The next largest occupation is first-line supervisors of farming, fishing and forestry workers. This occupation is substantially smaller with 1,213 jobs in 2017 and the smallest growth projection, 1%. However, it has the second largest number of annual openings, 164.

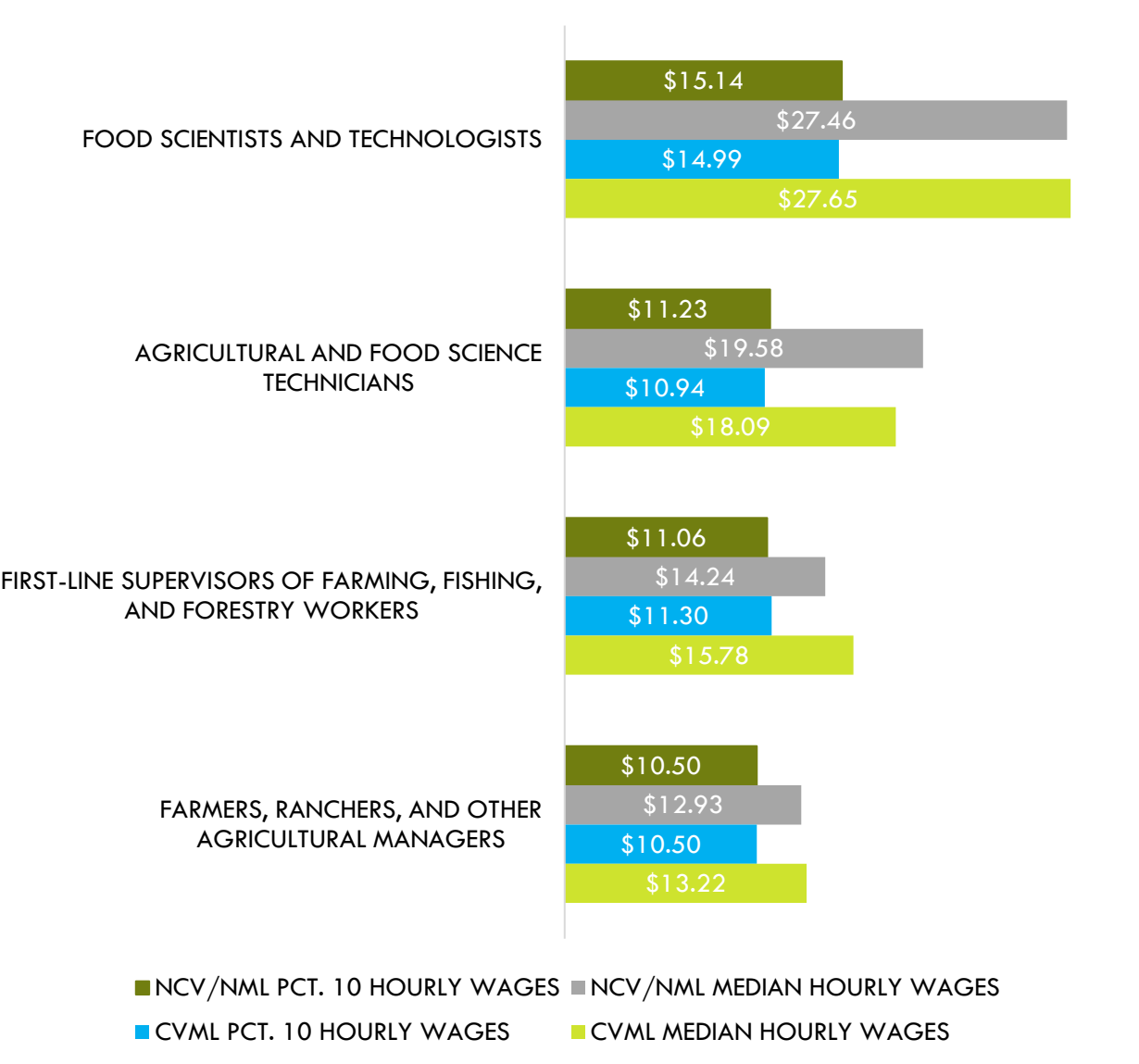**EXHIBIT 3.** Agricultural science and food safety occupational projections in the NCV/NML subregion

OCCUPATION	2017 JOBS	5-YEAR CHANGE	5-YEAR % CHANGE	ANNUAL OPENINGS
Farmers, Ranchers and Other Agricultural Managers	5,416	-130	-2%	397
First-Line Supervisors of Farming, Fishing and Forestry Workers	1,213	9	1%	164
Agricultural and Food Science Technicians	281	18	6%	32
Food Scientists and Technologists	233	8	3%	25
TOTAL	7,143	-95	-1%	618

WAGES

Exhibit 4 compares the entry-level and experienced wages of the four agricultural science and food safety occupations. The entry-level wages for farmers, ranchers and other agricultural managers exceeds the average self-sufficiency wage for a single adult in the eight-county subregion, $10.29/hour. In addition, entry-level wages for agricultural and food science technicians, and first-line supervisors of farming, fishing and forestry workers, are only slightly higher than the average living wage for a single adult, $11.02/hour, in the subregion.

EXHIBIT 4. Entry-level and experienced wage comparison in the region and subregion

FOOD SCIENTISTS AND TECHNOLOGISTS
- $15.14
- $27.46
- $14.99
- $27.65

AGRICULTURAL AND FOOD SCIENCE TECHNICIANS
- $11.23
- $19.58
- $10.94
- $18.09

FIRST-LINE SUPERVISORS OF FARMING, FISHING, AND FORESTRY WORKERS
- $11.06
- $14.24
- $11.30
- $15.78

FARMERS, RANCHERS, AND OTHER AGRICULTURAL MANAGERS
- $10.50
- $12.93
- $10.50
- $13.22

■ NCV/NML PCT. 10 HOURLY WAGES ■ NCV/NML MEDIAN HOURLY WAGES
■ CVML PCT. 10 HOURLY WAGES ■ CVML MEDIAN HOURLY WAGES

JOB POSTINGS

There were only 31 job postings for the four agricultural science and food safety occupations in the eight counties of the North Central Valley/Northern Mother Lode subregion from May 2017 through April 2018.

The top 10 employers advertising for the 31 jobs are listed in Exhibit 5.

EXHIBIT 5. Top 10 agricultural science and food safety employers by number of job postings

EMPLOYER	JOB POSTINGS
Trinchero Family Estates	4
Cedr Training District	2
Crystal Cream Butter Company	2
G3 Enterprises	2
California Berry Cultivars	1
Classified Ad	1
Cooperative Agricultural Support Services Authority	1
Crystal Creamery	1
Dellavalle Laboratory Incorporated	1
Ej Gallo	1

Exhibit 6 shows how job postings for the four targeted agricultural science and food safety occupations in the subregion were distributed across one primary occupation and five sub-occupations. The majority of job postings used the occupational title farm and ranch managers. The following two occupations—food scientists and technologists and food science technicians—are related to food safety.

EXHIBIT 6. Occupational titles related to the agricultural science and food safety in job postings

OCCUPATION	JOB POSTINGS
Farm and Ranch Managers (11-9013.02)	11
Food Scientists and Technologists (19-1012.00)	6
Food Science Technicians (19-4011.02)	5
Agricultural Technicians (19-4011.01)	4
Nursery and Greenhouse Managers (11-9013.01)	4
Aquacultural Managers (11-9013.03)	1

JOB TITLES

Analysis of the 31 advertised job titles for the targeted occupations reveals that five of the top 10 job titles are for enologists followed by feeder and scale house coordinators (weighing). Exhibit 7 shows the top 10 job titles among the job postings.

EXHIBIT 7. Top agricultural science and food safety job titles by number of job postings

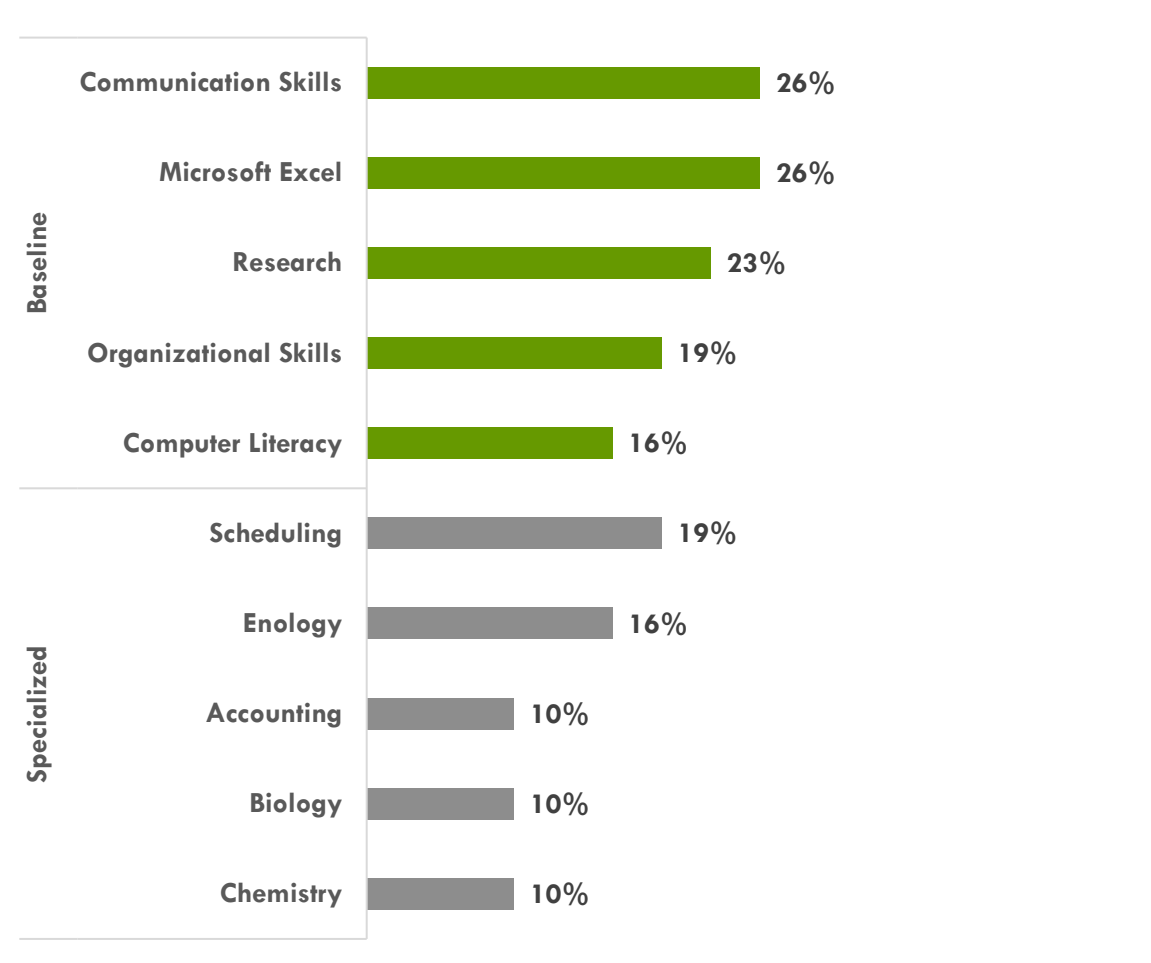| TITLE	JOB POSTINGS
Enologist	5
Feeder	3
Scale House Coordinator, Weighing	3
Agriculture Around Employment	2
Agricultural Specialist	1
Agriculture Grower/Manager	1
Area Sales Manager	1
Associate Manager, Research, Agriculture Industry	1
Field Agricultural Technician	1
Field Dairy Technician	1

SKILLS

Exhibit 8 depicts the top baseline and specialized skills for the four targeted agricultural science and food safety occupations. Just over 60% of the 31 job postings contained skills data.

Of the 19 job postings that contain skills data, the three most important baseline skills are communication skills, 26% of job postings, Microsoft Excel, 26%, and research, 23%. The top three specialized skills are scheduling, 19% of job postings, enology, 16%, and accounting, 10%.

EXHIBIT 8. Agricultural science and food safety baseline and specialized skills
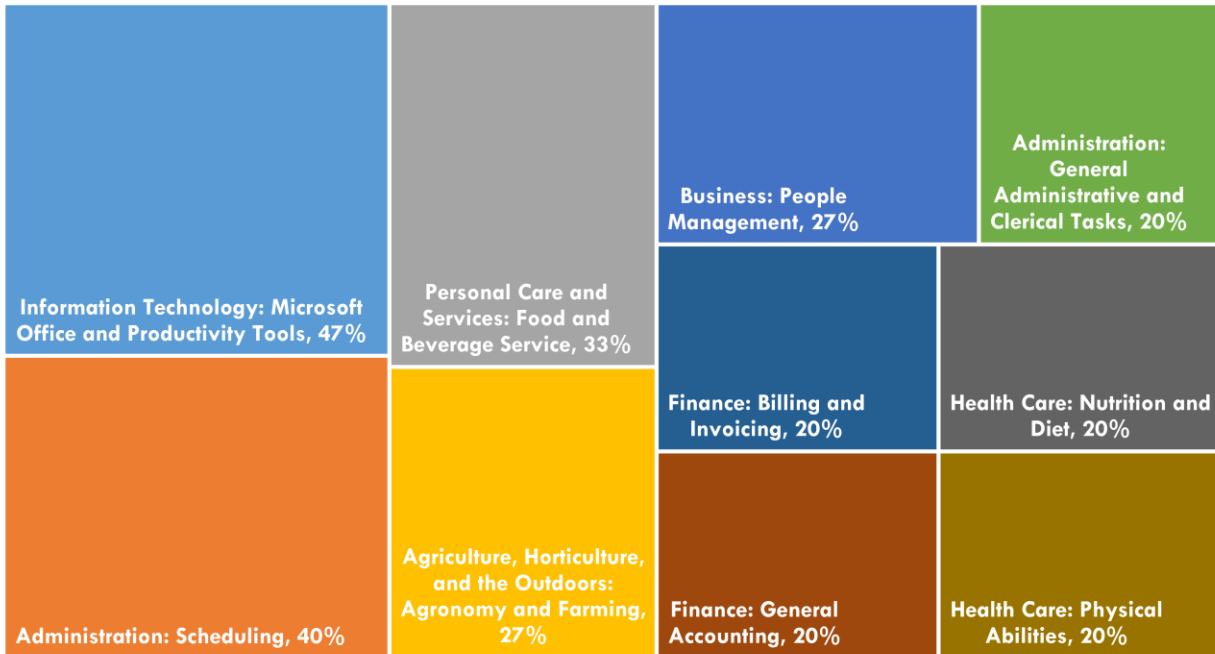

SKILL CLUSTER PROJECTIONS

Less than half of the 31 job postings contain skill cluster projections data. Analysis of this information reveals that each of the 16 postings have more than one skill cluster indicator. An evaluation of the top skill clusters that will have the greatest gains in level of importance shows that the top area is information technology: Microsoft Office and productivity tools, 62%.

Other clusters with large gain projections include administration: scheduling, 40%, and personal care and services: food and beverage services, 33%. (Exhibit 9). This latter cluster may be the result of traditional agricultural operations (wineries for example) expanding into the hospitality industry.

EXHIBIT 9. Skill cluster projections for agricultural science and food safety occupations

		Business: People Management, 27%	Administration: General Administrative and Clerical Tasks, 20%
Information Technology: Microsoft Office and Productivity Tools, 47%	Personal Care and Services: Food and Beverage Service, 33%	Finance: Billing and Invoicing, 20%	Health Care: Nutrition and Diet, 20%
Administration: Scheduling, 40%	Agriculture, Horticulture, and the Outdoors: Agronomy and Farming, 27%	Finance: General Accounting, 20%	Health Care: Physical Abilities, 20%

CERTIFICATIONS

There were only three certification requirements among the job postings. Of the nine postings that contain this data, seven indicated a need for a driver's license. The next two certifications were for Certified Pest Control and Pest Control Applicator (Exhibit 10).

EXHIBIT 10. Agricultural science and food safety certifications requested in job postings

Certification	Count
DRIVER'S LICENSE	7
CERTIFIED PEST CONTROL	1
PEST CONTROL APPLICATOR	1

EDUCATION, WORK EXPERIENCE AND TRAINING

The typical entry-level education for food scientists and technologists is a bachelor's degree and is only relevant for transfer-focused students.

The typical entry-level education for agricultural and food science technicians is an associate degree (Exhibit 11).

Farmers, ranchers and other agriculture managers, and first-line supervisors of farming, fishing and forestry workers have a typical entry-level education of a high school diploma or the equivalent, but both require prior work experience. Beyond the need for prior work experience, these two occupations also qualify as relevant to community colleges due to one or more of the following requirements:

- State of California certification requirements,
- Specialized industry knowledge and
- Performance of duties that are taught through agricultural science and food safety programs offered by local community colleges.

EXHIBIT 11. Education, work experience, training and Current Population Survey results[1]

OCCUPATION	TYPICAL ENTRY-LEVEL EDUCATION	WORK EXPERIENCE REQUIRED	TYPICAL ON-THE-JOB TRAINING	CPS
Farmers, Ranchers and Other Agricultural Managers	High school diploma or equivalent	5 years or more	None	29.1%
Food Scientists and Technologists	Bachelor's degree	None	None	16.5%
Agricultural and Food Science Technicians	Associate degree	None	Moderate-term	38.7%
First-Line Supervisors of Farming, Fishing and Forestry Workers	High school diploma or equivalent	Less than 5 years	None	23.6%

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[1] "Labor Force Statistics from the Current Population Survey," Bureau of Labor Statistics, accessed May 18, 2018, https://www.bls.gov/cps/.

SUPPLY

Analysis of California Community Colleges Chancellor's Office Curriculum Inventory (COCI) program data shows there are 11 community colleges in the region offering a total of 105 (46 certificate and 58 degree) programs contributing to workforce supply for the identified agriculture science and food safety occupations.

There are currently five colleges in the Central Valley/Mother Lode region that offer one or more active or draft 010100-Agriculture Science programs for a total of 10 programs (six degree programs and four certificate programs).

The colleges offering programs are:

- Merced – three programs (one certificate program and two degree programs),
- Modesto Junior – one degree program,
- Porterville – one degree program,
- Reedley – two programs (one certificate program and one degree program) and
- West Hills Coalinga – three programs (two certificate programs and one degree program).

Clovis is the only community college in the region that has an active 011300-Food Processing and Related Technology programs (one certificate program).

Analysis of the last three years of 010100-Agriculture Technology and Sciences, General TOP code data, from 2014 through 2017, showed that, on average, 15 certificates and 71 degrees were conferred in the Central Valley/Mother Lode region each year (Exhibit 12). There were, on average, 14 degrees and no certificates conferred in the subregion each year.

There have been no completions reported for Clovis Community College's 0111300-Food Processing and Related Technologies program in the last three years.

There are seven additional agriculture-related programs that also contribute to supply for the listed occupations.

Those other programs and their respective annual regional average supply contributions are:

- 010200-Animal Science – six certificates and 44 degrees,
- 010210-Dairy Science – one certificate and four degrees,
- 010300-Plant Science – 20 certificates and 29 degrees,
- 010310-Agricultural Pest Control Advisor and Operator, Licensed – three certificates,
- 010900-Horticulture – five certificates and 14 degrees,
- 011200-Agriculture Business, Sales and Services – 15 certificates and 71 degrees,
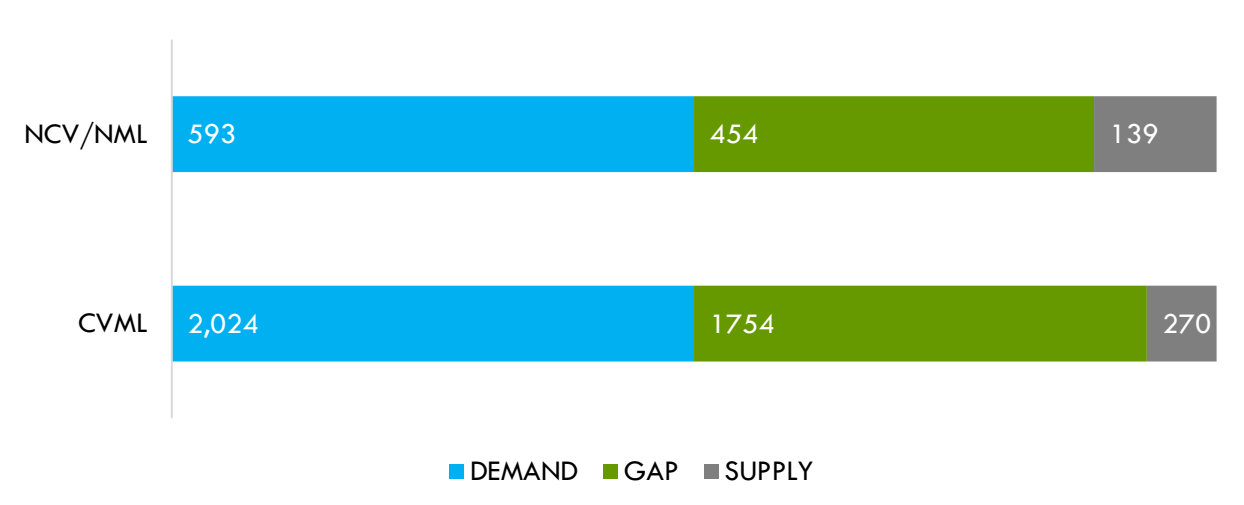- 011500-Natural Resources – 14 certificates and 11 degrees.

EXHIBIT 12. Community college supply for the four agricultural science and food safety occupations in the subregion and region

TOP TITLE AND CODE	COLLEGE	3-YEAR AVERAGE	
		CERTIFICATES	DEGREES
Agricultural Pest Control Adviser and Operator (Licensed)-010310	Sequoias	3	
Agriculture Business, Sales and Service-011200	Bakersfield	3	12
	Merced		16
	Modesto Junior		30
	Reedley	6	5
	San Joaquin Delta		2
	Sequoias	6	6
	Subtotal	**15**	**71**
Agriculture Technology and Sciences, General-010100	Merced		5
	Modesto Junior		9
	Porterville		6
	Reedley	2	2
	Sequoias		0
	West Hills Coalinga	7	2
	Subtotal	**9**	**25**
Animal Science-010200	Bakersfield	3	8
	Merced		7
	Modesto Junior		18
	Reedley		7
	San Joaquin Delta	1	
	Sequoias	2	5
	Subtotal	**6**	**44**
Dairy Science-010230	Modesto Junior		3
	Sequoias	1	1
	Subtotal	**1**	**4**
Horticulture-010900	Bakersfield	1	3
	Merced	1	5
	Modesto Junior	0	3
	Reedley		0
	San Joaquin Delta		1
	Sequoias	2	1
	Subtotal	**5**	**14**

| TOP TITLE AND CODE | COLLEGE | 3-YEAR AVERAGE | |
		CERTIFICATES	DEGREES
Natural Resources-011500	Columbia	8	11
	Reedley	6	
	Subtotal	**14**	**11**
Plant Science-010300	Bakersfield	1	7
	Merced	1	3
	Modesto Junior		15
	Reedley	15	1
	San Joaquin Delta	1	
	Sequoias	3	3
	Subtotal	**20**	**29**
TOTAL		72	198

Even with the food scientists and technologists occupation removed from the occupational demand analysis, a gap in supply appears to exist in the region and subregion. In the subregion, there is a shortage of 454 trained workers. In the region, the shortage is 1,754 trained workers (Exhibit 13).

EXHIBIT 13. Agricultural science and food safety workforce annual demand and supply in the subregion and region

NCV/NML: DEMAND 593, GAP 454, SUPPLY 139
CVML: DEMAND 2,024, GAP 1754, SUPPLY 270

DEMAND ■ GAP ■ SUPPLY

CONCLUSION

The entry-level wages for agricultural science and food safety occupations exceed the average self-sufficiency wage at the regional and subregional levels, but some of these wages fall short of the average living wage for a single adult at both levels.

There were 31 job postings in 2017 for occupations related to agricultural science and food safety in the North Central Valley/Northern Mother Lode subregion.

Analysis of skills and certificate requirements in job postings indicates:
- The top baseline skill requirement is communication skills, and the top specialized skill is quality control analysis.
- The top certification is a driver's license.

There are 11 community colleges in the region offering a total of 105 programs (46 certificate programs and 58 degree programs) contributing to workforce supply for the identified agriculture science and food safety occupations, but there remains an undersupply of trained workers, a shortage of 1,754 in the region and 454 in the subregion.

RECOMMENDATION

It is recommended that Modesto Junior College work with the region's agriculture, water and environmental technologies deputy sector navigator, the college's advisory board and local industry in the expansion of its agricultural science and food safety program.

APPENDIX A: METHODOLOGY & DATA SOURCES

Data Sources

Labor market and educational supply data compiled in this report derive from a variety of sources. Data were drawn from external sources, including the Economic Modeling Specialists, Inc., the California Community Colleges Chancellor's Office Management Information Systems Data Mart and the National Center for Educational Statistics (NCES) Integrated Postsecondary Education Data System (IPEDS). Below is the summary of the data sources found in this study.

Data Type	Source
Labor Market Information/Population Estimates and Projections/Educational Attainment	Economic Modeling Specialists, Intl. (EMSI). EMSI occupational employment data are based on final EMSI industry data and final EMSI staffing patterns. Wage estimates are based on Occupational Employment Statistics (QCEW and Non-QCEW Employees classes of worker) and the American Community Survey (Self-Employed and Extended Proprietors). Occupational wage estimates also affected by county-level EMSI earnings by industry: economicmodeling.com.
Living Wage	A living wage calculator that estimates the cost of living in a specific community or region: livingwage.mit.edu.
Typical Education Level and On-the-job Training	Bureau of Labor Statistics (BLS) uses a system to assign categories for entry-level education and typical on-the-job training to each occupation for which BLS publishes projections data: www.bls.gov/emp/ep_education_tech.htm.
Labor Force, Employment and Unemployment Estimates	California Employment Development Department, Labor Market Information Division, labormarketinfo.edd.ca.gov
Job Posting and Skills Data	Burning Glass, http://www.burning-glass.com/
Additional Education Requirements/ Employer Preferences	The O*NET Job Zone database includes over 900 occupations as well as information on skills, abilities, knowledge, work activities and interests associated with specific occupations: www.onetonline.org

Key Terms and Concepts

Annual Job Openings: Annual openings are calculated by dividing the number of years in the projection period by total job openings.

Education Attainment Level: The highest education attainment level of workers age 25 years or older.

Employment Estimate: The total number of workers currently employed.

Employment Projections: Projections of employment are calculated by a proprietary Economic Modeling Specialists, Intl. (EMSI) formula that includes historical employment and economic indicators along with national, state and local trends.

Living Wage: The cost of living in a specific community or region for one adult and no children. The cost increases with the addition of children.

Occupation: An occupation is a grouping of job titles that have a similar set of activities or tasks that employees perform.

Percent Change: Rate of growth or decline in the occupation for the projected period; this does not factor in replacement openings.

Replacements: Estimate of job openings resulting from workers retiring or otherwise permanently leaving an occupation. Workers entering an occupation often need training. These replacement needs, added to job openings due to growth, may be used to assess the minimum number of workers who will need to be trained for an occupation.

Total Job Openings (New + Replacements): Sum of projected growth (new jobs) and replacement needs. When an occupation is expected to lose jobs, or retain the current employment level, number of openings will equal replacements.

Typical Education Requirement: represents the typical education level most workers need to enter an occupation.

Typical On-The-Job Training: indicates the typical on-the-job training needed to attain competency in the skills needed in the occupation.

Wages Family Compositions: The living wage calculator estimates the living wage needed to support families. For single adult families, the adult is assumed to be employed full time. For two adult families where both adults are in the labor force, both adults are assumed to be employed full time. For two adult families where one adult is not in the labor force, one of the adults is assumed to be employed full time while the other non-wage-earning adult provides full-time child care for the family's children. Full-time work is assumed to be year-round, 40 hours per week for 52 weeks, per adult. Families with one child are assumed to have a 'young child' (4 years old). Families with two children are assumed to have a 'young child' and a 'child' (9 years old). Families with three children are assumed to have a 'young child,' a 'child,' and a 'teenager' (15 years old).