

LABOR MARKET DATA

Food Safety in Animal Science

**Overview:**

Onet Online, sponsored by the U.S. Department of Labor/Employment and Training Administration (USDOL/ETA) describes the position of *Agricultural and Food Science Technician* (919-4011.00)[[1]](#footnote-1) as follows:

* 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 in the research and development of production technology, quality control, packaging, processing, and use of foods.

According to the article *Occupational Analysis of the Present and Future Food Safety Workforce,[[2]](#footnote-2)* **“**… a general shortage of qualified food safety professionals has been observed in recent years...“ Although this report is a national study, when looking at the Central Valley there is strong evidence that students earning a certificate in *Agricultural and Food Science Technicians* will be gainfully employed.

**Section I: Labor Market Demand**

The chart below details the projected employment growth for *Agricultural and Food Science Technicians* in California.[[3]](#footnote-3) The chart from Careeronestop.com, a site sponsored by the U.S. Department of Labor details California’s growth rate in this employment field between 2014 through 2024. Growth is listed as +19%.

**Employment for Agricultural and Food Science Technicians:**



**Looking at Central Valley specific data,** *The Regional Labor Market Assessment*[[4]](#footnote-4) (Central Valley/Mother Lode Region) a report prepared by Centers of Excellence explains employment estimates, five-year projected growth, as well as demand for replacement workers. Moreover, replacement estimates include retirements and general separations, but not turnover within the occupation. Therefore, job openings, combining replacements and new job growth, is a good measure of demand for workers. As you can see a 4% increase is currently expected.

**Five-Year Projections for Life, Physical and Social Science Occupations:**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Occupations SOC  | Occupation  | 2015 Jobs  | 5-Yr Change  | 5-Yr % Change  | 5-Yr Re-placements  | Annual Openings  |
| 19-4011  | Agricultural and Food Science Technicians  | 821  | 34  | 4%  | 146  | 36  |

**Section II: Wages**

The Centers of Excellence states that a livable wage in the Central Valley for one adult is **$10.64**. That is an important detail when considering new program implementation.

The table below lists wages for *Agricultural and Food Science Technicians* in California. Below are a couple Central Valley data-sets provided by careersonestop.com (sponsored by the US Department of Labor**[[5]](#footnote-5)**). The hourly wage at the tenth percentile exceeds the livable wage**:**

|  |
| --- |
| **2017 Available Workforce - Wages for Agricultural and Food Science Technicians in California** |
| **Location**  | **Pay Period** | **10%** | **25%** | **Median** | **75%** | **90%** |
| **United States** | *Hourly* | *$12.67* | *$15.42* | *$19.19* | *$24.00* | *$30.16* |
| *Yearly* | *$26,350* | *$32,070* | *$39,910* | *$49,920* | *$62,740* |
| **California** | *Hourly* | *$12.77* | *$15.88* | *$20.16* | *$24.49* | *$29.50* |
| *Yearly* | *$26,560* | *$33,040* | *$41,940* | *$50,930* | *$61,370* |
| Visalia-Porterville, CA MSA | **Hourly** | **$11.95** | $14.81 | $20.39 | $23.70 | **$27.27** |
| Yearly | $24,860 | $30,800 | $42,420 | $49,290 | $56,720 |
| Fresno, CA MSA | **Hourly** | **$11.79** | $16.07 | $18.39 | $22.52 | **$27.41** |
| Yearly | $24,530 | $33,420 | $38,250 | $46,840 | $57,010 |

When comparing data with the Centers of Excellence[[6]](#footnote-6), a summary of all Central Valley data, the data confirms that the bottom tenth percentile is above liveable wage, and amongst experienced wages (median) reaching $16.34.



**Section III: Job Description, Knowledge & Skills**

According to *Occupational Analysis of the Present and Future Food Safety Workforces[[7]](#footnote-7),* **“**Agricultural and food science technicians measure and analyze the quality of food and agricultural products, under the supervision of scientists. They work in offices, laboratories, and in processing plants.”

*Occupational Analysis of the Present and Future Food Safety Workforces[[8]](#footnote-8),*also lists the following knowledge needed for this position:

* Food safety
* Quality assurance
* Accountability
* Laboratory skills

Skills needed:

* Critical thinking
* Communication
1. <https://www.onetonline.org/link/summary/19-4011.00#AdditionalInformation> [↑](#footnote-ref-1)
2. <http://www.foodprotection.org/files/food-protection-trends/Mar-Apr-15-Stevenson.pdf>, foodprotection.org page 105 [↑](#footnote-ref-2)
3. <https://www.careeronestop.org/Toolkit/StateAndLocal/ProjectedEmployment.aspx?soccode=194011&location=California&dataview=table> [↑](#footnote-ref-3)
4. <https://dwmshowcase.com/lmilibrary/documents/lma_CVML_16.pdf> page 48 [↑](#footnote-ref-4)
5. <https://www.careeronestop.org/Toolkit/StateAndLocal/Wages.aspx?soccode=194011&location=California&dataview=table> [↑](#footnote-ref-5)
6. <https://dwmshowcase.com/lmilibrary/documents/lma_CVML_16.pdf> Page 48 [↑](#footnote-ref-6)
7. <http://www.foodprotection.org/files/food-protection-trends/Mar-Apr-15-Stevenson.pdf>, foodprotection.org page 102 [↑](#footnote-ref-7)
8. <http://www.foodprotection.org/files/food-protection-trends/Mar-Apr-15-Stevenson.pdf>, foodprotection.org page 103 [↑](#footnote-ref-8)