

Labor Market Analysis for Program Recommendation:  
 1306.30/Culinary Arts  
*Fundamental Skills of Culinary Arts;*  
*Advanced Skills of Culinary Arts;*  
*Food Service Management*



FOR LABOR MARKET RESEARCH  
 CENTRAL VALLEY/MOTHER LODGE

CVML Center of Excellence, December 2024

Summary

Program LMI Endorsement	Endorsed: All LMI Criteria Met <input type="checkbox"/>	Endorsed: Some LMI Criteria Met <input checked="" type="checkbox"/>	Not LMI Endorsed <input type="checkbox"/>
<b>Program LMI Endorsement Criteria</b>			
	Yes <input checked="" type="checkbox"/>		No <input type="checkbox"/>
Supply Gap:	<p>Comments: There is projected to be <b>3,329 annual job openings</b> throughout the SCV/SML subregion for <i>Culinary Arts and Food Service-Related Occupations</i>, which is <b>more than the 110 awards conferred by educational institutions</b>.</p>		
	Yes <input checked="" type="checkbox"/>		No <input type="checkbox"/>
Living Wage: (Entry-Level, 25 <sup>th</sup> )	<p>Comments: <i>Chefs and Head Cooks</i> (\$20.65); <i>Food Service Managers</i> (\$20.29); <i>Cooks, Institution and Cafeteria</i> (\$17.55); and <i>First-Line Supervisors of Food Preparation and Serving Workers</i> (\$17.11) have an entry-level hourly wage higher than the SCV/SML hourly wage of \$16.08. <i>Food Preparation Workers</i> (\$15.70) have an entry-level hourly wage below the SCV/SML hourly wage.</p> <p><b>Approximately 68% of all annual openings related to the occupations of interest have an entry-level hourly wage above the regional living wage.</b></p>		
	Yes <input type="checkbox"/>		No <input checked="" type="checkbox"/>
Education:	<p>Comments: The typical entry-level education for <i>Chefs and Head Cooks</i>; <i>First-Line Supervisors of Food Preparation and Serving Workers</i>; and <i>Food Service Managers</i> is a high school diploma or equivalent, while <i>Cooks, Institution and Cafeteria</i>, and <i>Food Preparation Workers</i> typically do not require a formal educational credential. Between 24% to 38% of incumbent workers in the field have completed some college or an associate degree as their highest level of education.</p>		
<b>Emerging Occupation(s)</b>			
	Yes <input type="checkbox"/>		No <input checked="" type="checkbox"/>
	Comments: N/A		

The Central Valley/Mother Lode Center of Excellence for Labor Market Research (CVML COE) prepared this report to determine whether there is a supply gap in the South Central Valley/Southern Mother Lode regional labor market related to the following occupations:

- Food Service Managers (11-9051)
- Chefs and Head Cooks (35-1011)
- First-Line Supervisors of Food Preparation and Serving Workers (35-1012)
- Cooks, Institution and Cafeteria (35-2012)
- Food Preparation Workers (35-2021)

Based on the available data, there appears to be a supply gap for *Culinary Arts and Food Service-Related Occupations*. Although four of the five occupations in this report have entry-level hourly wages above the regional living wage, three of the five occupations have a typical entry-level education of a high school diploma or equivalent and the remaining two occupations do not have a formal educational credential requirement. **Due to some of the regional labor market criteria being met, the COE endorses this proposed program.**

Exhibit 1 lists the occupational demand, supply, typical entry-level education, and educational attainment for *Culinary Arts and Food Service-Related Occupations*.

### Exhibit 1: Labor Market Endorsement Summary

Occupation (SOC)	Demand (Annual Openings)	Supply (CC and Non-CC)	Entry-Level Hourly Earnings (25th Percentile)	Typical Entry-Level Education	Community College Educational Attainment
Chefs and Head Cooks (35-1011)	NCV/NML: 110 SCV/SML: 174		NCV/NML: \$18.15 SCV/SML: \$20.65	High school diploma or equivalent	38%
Cooks, Institution and Cafeteria (35-2012)	NCV/NML: 190 SCV/SML: 363		NCV/NML: \$17.81 SCV/SML: \$17.55	No formal educational credential	24%
Food Preparation Workers (35-2021)	NCV/NML: 675 SCV/SML: 1,052	NCV/NML: 71 SCV/SML: 110	NCV/NML: \$16.44 SCV/SML: \$15.70	No formal educational credential	25%
Food Service Managers (11-9051)	NCV/NML: 275 SCV/SML: 418		NCV/NML: \$20.02 SCV/SML: \$20.29	High school diploma or equivalent	36%
First-Line Supervisors of Food Preparation and Serving Workers (35-1012)	NCV/NML: 800 SCV/SML: 1,322		NCV/NML: \$17.33 SCV/SML: \$17.11	High school diploma or equivalent	38%
<b>Total</b>	<b>5,379</b>	<b>181</b>	<b>-</b>	<b>-</b>	<b>-</b>

## Demand:

- The number of jobs related to *Culinary Arts and Food Service-Related Occupations* is projected to increase 12% in the SCV/SML subregion through 2028. There will be 3,329 annual job openings.
- The entry-level hourly wages for *Culinary Arts and Food Service-Related Occupations* are between \$15.70 and \$20.65 in SCV/SML. Four of the five occupations have entry-level hourly wages above the living wage of \$16.08.
- There were 2,848 online job postings for *Culinary Arts and Food Service-Related Occupations* over the past 12 months. The highest number of postings were for *Food Service Managers*.
- The typical entry-level education for *Food Service Managers; Chefs and Head Cooks; and First-Line Supervisors of Food Preparation and Serving Workers* is a high school diploma or equivalent, while *Cooks, Institution and Cafeteria, and Food Preparation Workers* typically do not require a formal educational credential.
- Between 24% to 38% of incumbent workers in the field have completed some college or an associate degree as their highest level of education.

## Supply:

- Between 2020 and 2023, there were 81 awards conferred by four community colleges in the SCV/SML subregion.
- Between 2019 and 2022, there were 29 awards conferred by one SCV/SML non-community college institution in relevant program(s).

## Demand

### Occupational Projections

Exhibit 2 shows the annual percent change in jobs for *Culinary Arts and Food Service-Related Occupations* from 2018 through 2028. Employment in these occupations experienced a 10% decrease in 2020 (SCV/SML), but then experienced an increase of 15% in 2021 (SCV/SML), significantly higher than the 2% increase across all occupations in 2021 (CVML). Employment projections through 2028 for *Culinary Arts and Food Service-Related Occupations* is projected to remain steady across the two subregions and the region.

**Exhibit 2: Annual Percent Change in Jobs for Culinary Arts and Food Service-Related Occupations, 2018-2028**

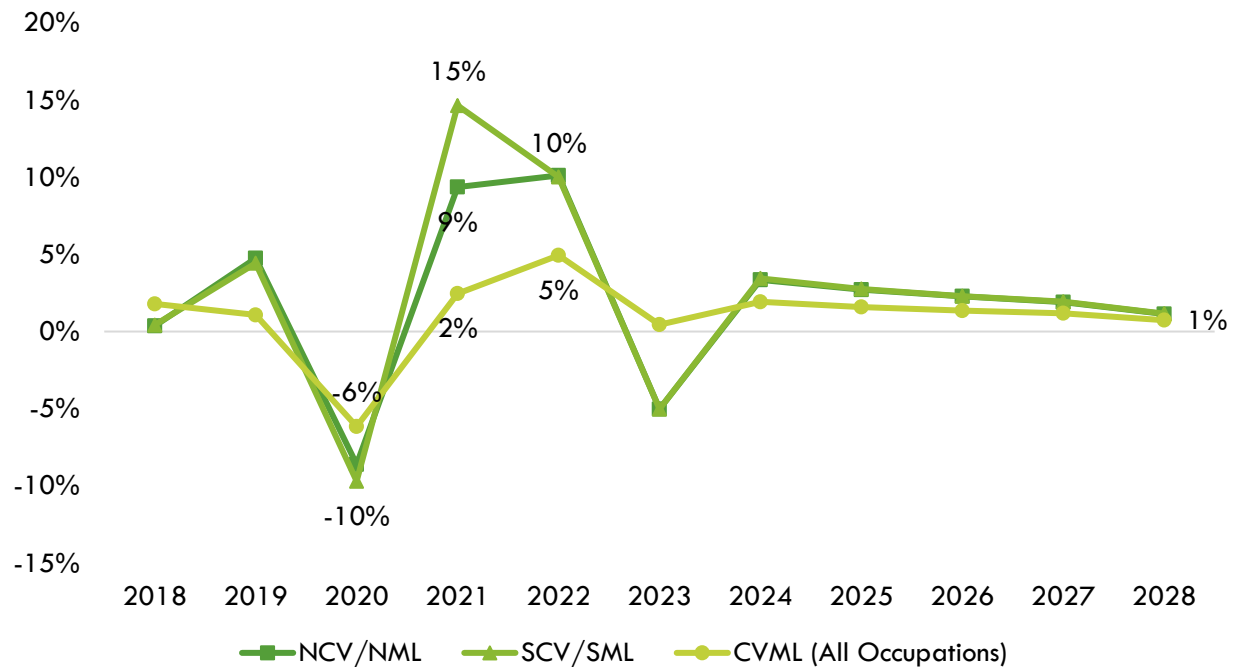


Exhibit 3 shows the five-year occupational demand projections for *Culinary Arts and Food Service-Related Occupations*. In the SCV/SML subregion, the number of jobs related to these occupations is projected to increase by 12% through 2028. There is projected to be 3,329 jobs available annually in the SCV/SML subregion.

**Exhibit 3: Occupational Demand in NCV/NML, SCV/SML and CVML**

Geography	2023 Jobs	2028 Jobs	2023-2028 Change	2023-2028 % Change	Annual Openings
NCV/NML	11,405	12,761	1,356	12%	2,050
SCV/SML	18,428	20,661	2,233	12%	3,329
<b>CVML</b>	<b>29,833</b>	<b>33,422</b>	<b>3,589</b>	<b>12%</b>	<b>5,379</b>

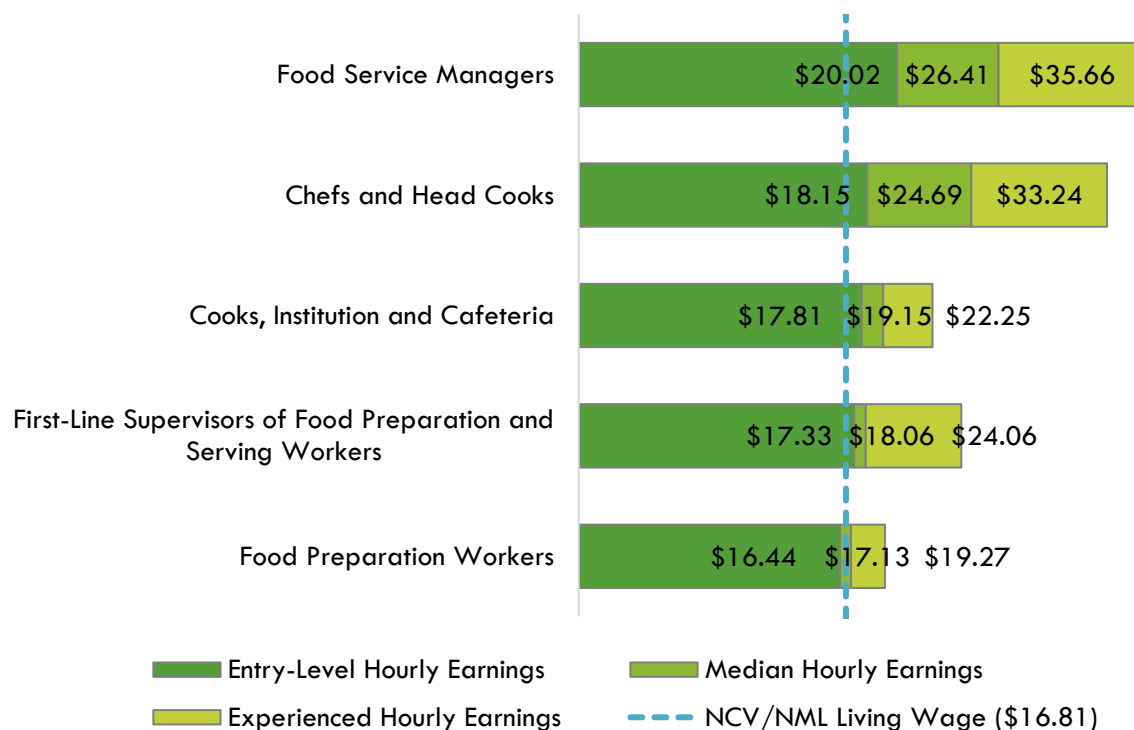
## Wages:

The labor market endorsement in this report considers the entry-level hourly wages for *Culinary Arts and Food Service-Related Occupations* as they relate to both subregions and the region's living wage. NCV/NML, SCV/SML, and CVML wages are included below to provide a complete analysis of the region.

### NCV/NML

The typical entry-level hourly wage for *Food Service Managers* (\$20.02), *Chefs and Head Cooks* (\$18.15), *Cooks, Institution and Cafeteria* (\$17.81), and *First-Line Supervisors of Food Preparation and Serving Workers* (\$17.33) are above the living wage for one adult in the NCV/NML subregion (\$16.81); the entry-level hourly wage for *Food Preparation Workers* (\$16.44) is slightly below the NCV/NML living wage. The NCV/NML average wage for these occupations is \$22.36, which is below the average statewide wage of \$23.95. Exhibit 4a shows the wage range for the five occupations of interest and how they compare to the NCV/NML subregion's living wage.

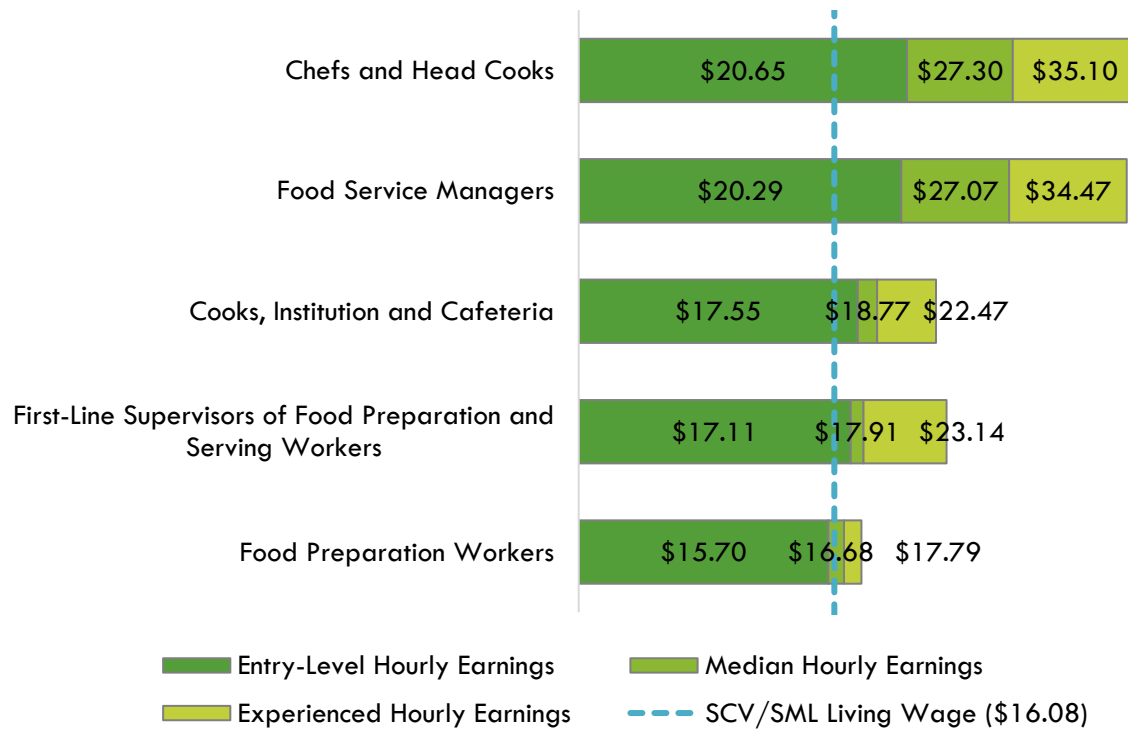
Exhibit 4a: Wages by Occupation in NCV/NML



### SCV/SML

The typical entry-level hourly wage for *Chefs and Head Cooks* (\$20.65), *Food Service Managers* (\$20.29), *Cooks, Institution and Cafeteria* (\$17.55), and *First-Line Supervisors of Food Preparation and Serving Workers* (\$17.11) are above the living wage for one adult in the SCV/SML subregion (\$16.08); the entry-level hourly wage for *Food Preparation Workers* (\$15.70) is below the SCV/SML living wage. The SCV/SML average wage for these occupations is \$21.94, which is below the average statewide wage of \$23.95. Exhibit 4b shows the wage range for the five occupations of interest and how they compare to the SCV/SML subregion's living wage.

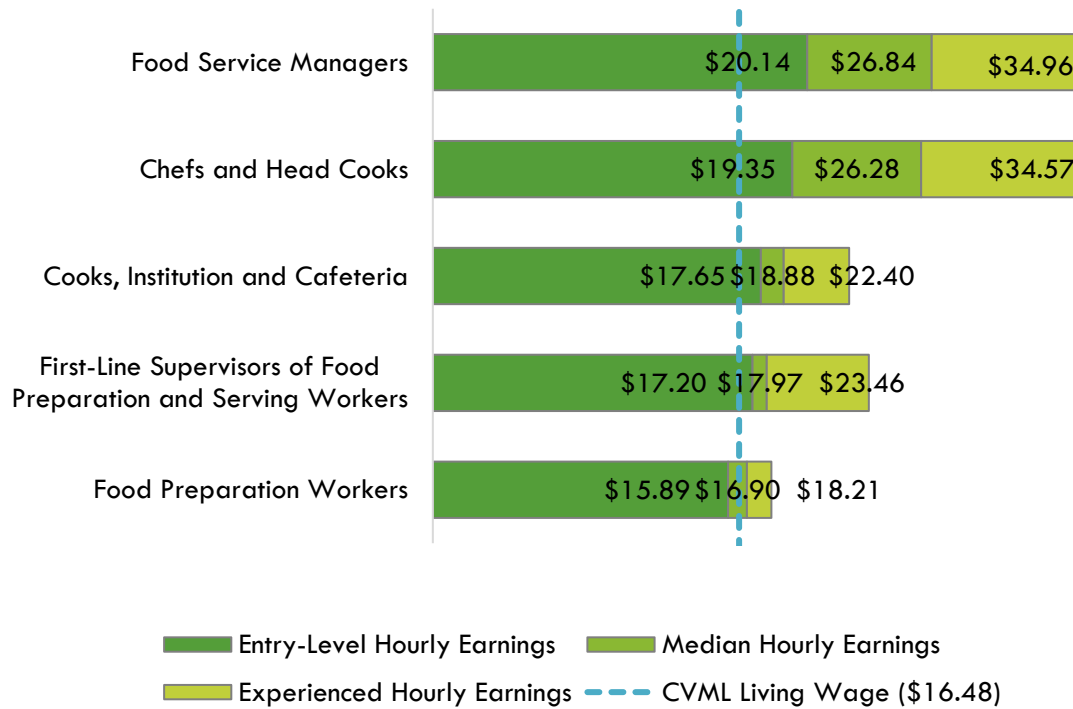
Exhibit 4b: Wages by Occupation in SCV/SML



## CVML

The typical entry-level hourly wage for *Food Service Managers* (\$20.14), *Chefs and Head Cooks* (\$19.35), *Cooks, Institution and Cafeteria* (\$17.65), and *First-Line Supervisors of Food Preparation and Serving Workers* (\$17.20) are above the living wage for one adult in the CVML region (\$16.48); the entry-level hourly wage for *Food Preparation Workers* (\$15.89) is below the CVML living wage. The CVML average wage for these occupations is \$22.10, which is below the average statewide wage of \$23.95. Exhibit 5 shows the wage range for the five occupations of interest and how they compare to the CVML living wage.

Exhibit 5: Wages by Occupation in CVML



## Job Postings:

Online job postings data is sourced from Lightcast, a labor market analytics firm that scrapes, collects, and organizes data from online job boards such as LinkedIn, Indeed, Glassdoor, Monster, GovernmentJobs.com, and thousands more. Lightcast uses natural language processing (NLP) to determine the related company, industry, occupation, and other information for each job posting. However, NLP has limitations that include understanding contextual words of phrases; determining differences in words that can be used as nouns, verbs, and/or adjectives; and misspellings or grammatical errors. For these reasons, job postings could be assigned to the wrong employer, industry, or occupation within Lightcast’s database.

Additionally, there are several limitations when analyzing job postings. A single job posting may not represent a single job opening, as employers may be creating a pool of candidates for future openings or hiring for multiple positions with a single posting. Additionally, not all jobs are posted online, and jobs may be filled through other methods such as internal promotion, word-of-mouth advertising, physical job boards, or a variety of other channels.<sup>1</sup>

There were 2,848 online job postings related to Culinary Arts and Food Service listed in the past 12 months. Exhibit 6 shows the number of job postings for the five occupations of interest.

**Exhibit 6: Number of Job Postings by Occupation (n=2,848)**

Occupation	Job Postings	Percentage of Job Postings
Food Service Managers	1,101	39%
First-Line Supervisors of Food Preparation and Serving Workers	1,082	38%
Food Preparation Workers	490	17%
Chefs and Head Cooks	159	6%
Cooks, Institution and Cafeteria	16	1%

<sup>1</sup> K. R. Chowdhary, *Fundamentals of Artificial Intelligence* (Basingstoke: Springer Nature, 2020), <https://link.springer.com/book/10.1007/978-81-322-3972-7>.



The top employers in the region for *Culinary Arts and Food Service*, by number of job postings, are shown in Exhibit 7.

**Exhibit 7: Top Employers by Number of Job Postings (n=2,848)**

Employer	Job Postings	Percentage of Job Postings
Starbucks	454	16%
Taco Bell	176	6%
Panda Express	95	3%
Pilot Company	89	3%
Domino's Pizza	64	2%
The Habit Burger Grill	61	2%
Love's	46	2%
Save Mart Supermarkets	42	1%
Chipotle	40	1%
Denny's	38	1%

The top specialized, soft, and computer skills for *Culinary Arts and Food Service* are listed by those most frequently mentioned in job postings (denoted in parentheses) are shown in Exhibit 8.

**Exhibit 8: Top Skills by Number of Job Postings (n=2,848)**

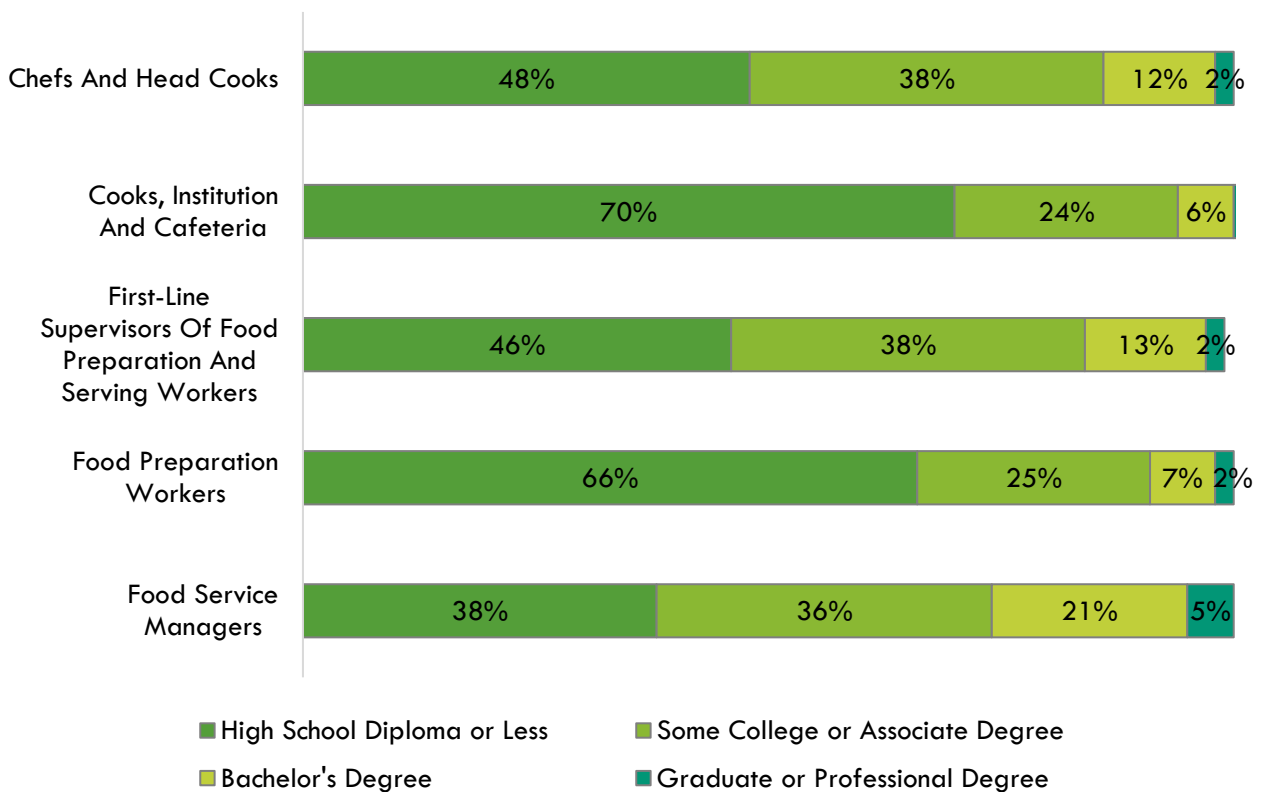
Top Specialized Skills	Top Soft Skills	Top Computer Skills
Restaurant Operation (1,615)	Customer Service (1,701)	Microsoft Outlook (103)
Cash Handling (719)	Communication (1,458)	Microsoft Excel (99)
Food Safety and Sanitation (713)	Leadership (1,122)	Microsoft Office (92)
Retail Operations (517)	Management (981)	Microsoft Word (80)
Food Services (442)	Operations (914)	Microsoft PowerPoint (46)
Restaurant Management (426)	Sales (681)	Inventory Management System (42)
Collective Bargaining (333)	Verbal Communication Skills (666)	Applicant Tracking Systems (26)
Cooking (332)	Interpersonal Communications (661)	Spreadsheets (24)
Marketing (317)	Cleanliness (623)	Kronos (Timekeeping Software) (23)
Food Preparation (300)	Coordinating (584)	Operating Systems (9)

## Educational Attainment:

The Bureau of Labor Statistics (BLS) lists a high school diploma or equivalent as the typical entry-level education for *Food Service Managers; Chefs and Head Cooks; and First-Line Supervisors of Food Preparation and Serving Workers*; no formal educational credential is required for *Cooks, Institution and Cafeteria and Food Preparation Workers*. National-level educational attainment data indicates that between 24% and 38% of workers have completed some college or an associate degree as their highest level of education, as shown in Exhibit 9.

Of the 2,848 online job postings, 57% (equivalent to 1,628 postings) of cumulative job postings for *Culinary Arts and Food Service* listed a minimum education requirement in the SCV/SML subregion, and 27% (772) requested a high school diploma or GED.

**Exhibit 9: National-level Educational Attainment for Culinary Arts and Food Service-Related Occupations**



# Educational Supply

## Community College Supply:

Exhibit 10 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 Bakersfield, Columbia, and San Joaquin Delta.

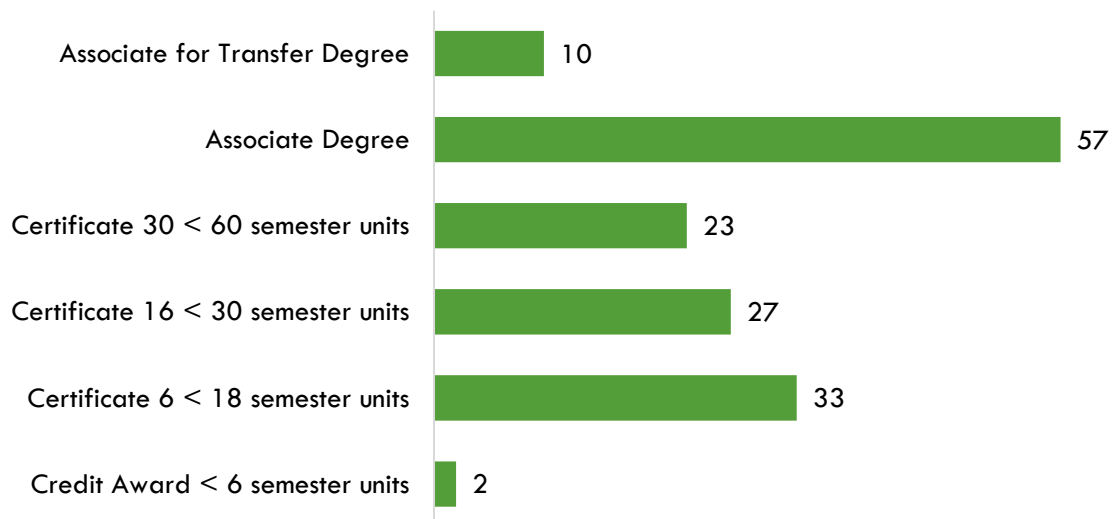
**Exhibit 10: Regional Community College Awards (Certificates and Degrees), 2020-2023**

TOP Code	Program	College	2020-2021 Awards	2021-2022 Awards	2022-2023 Awards	3-Year Award Average
1306.00	Nutrition, Foods, and Culinary Arts	Columbia	1	-	2	1
		Merced	6	5	2	4
		<b>NCV/NML Subtotal</b>	<b>7</b>	<b>5</b>	<b>4</b>	<b>5</b>
		Bakersfield	2	3	8	4
		Fresno City	6	6	9	7
		Sequoias	1	1	3	2
		<b>SCV/SML Subtotal</b>	<b>9</b>	<b>10</b>	<b>20</b>	<b>13</b>
<b>Supply Subtotal/Average</b>			<b>16</b>	<b>15</b>	<b>24</b>	<b>18</b>
1306.20	Dietetic Services and Management	Merced	6	9	7	7
		<b>NCV/NML Total</b>	<b>6</b>	<b>9</b>	<b>7</b>	<b>7</b>
		Bakersfield	2	6	8	5
		Fresno City	1	1	-	1
		<b>SCV/SML Subtotal</b>	<b>3</b>	<b>7</b>	<b>8</b>	<b>6</b>
<b>Supply Subtotal/Average</b>			<b>9</b>	<b>16</b>	<b>15</b>	<b>13</b>
1306.30	Culinary Arts	Columbia	20	11	27	19
		Merced	2	8	5	5
		San Joaquin Delta	33	28	16	26
		<b>NCV/NML Subtotal</b>	<b>55</b>	<b>47</b>	<b>48</b>	<b>50</b>
		Bakersfield	9	32	19	20
		Sequoias	4	3	25	11
		<b>SCV/SML Subtotal</b>	<b>13</b>	<b>35</b>	<b>44</b>	<b>31</b>
<b>Supply Subtotal/Average</b>			<b>68</b>	<b>82</b>	<b>92</b>	<b>81</b>

TOP Code	Program	College	2020-2021 Awards	2021-2022 Awards	2022-2023 Awards	3-Year Award Average
1307.00	Hospitality	Columbia	1	-	-	0
		<b>NCV/NML Subtotal</b>	<b>1</b>	<b>-</b>	<b>-</b>	<b>0</b>
		<b>Supply Subtotal/Average</b>	<b>1</b>	<b>-</b>	<b>-</b>	<b>0</b>
1307.10	Restaurant and Food Services and Management	Columbia	18	6	2	9
		<b>NCV/NML Subtotal</b>	<b>18</b>	<b>6</b>	<b>2</b>	<b>9</b>
		Fresno City	8	5	6	6
		West Hills Lemoore	32	23	14	23
		<b>SCV/SML Subtotal</b>	<b>40</b>	<b>28</b>	<b>20</b>	<b>29</b>
<b>Supply Subtotal/Average</b>			<b>58</b>	<b>34</b>	<b>22</b>	<b>38</b>
1307.20	Lodging Management	West Hills Lemoore	2	1	2	2
		<b>SCV/SML Subtotal</b>	<b>2</b>	<b>1</b>	<b>2</b>	<b>2</b>
		<b>Supply Subtotal/Average</b>	<b>2</b>	<b>1</b>	<b>2</b>	<b>2</b>
<b>Supply Total/Average</b>			<b>154</b>	<b>148</b>	<b>155</b>	<b>152</b>

Exhibit 11 shows the average community college awards by type from 2020 through 2023. Of the 152 awards conferred in the CVML region, 38% (57) were for associate degrees.

### Exhibit 11: Annual Average Community College Awards by Type, 2020-2023



## Non-Community College Supply:

For a comprehensive regional supply analysis, it is also important to consider the supply from other institutions in the region that provide training programs for the occupations of interest. Exhibit 12 shows the annual and three-year average number of awards conferred by these institutions in the related Classification of Instructional Programs (CIP) Code: Baking and Pastry Arts/Baker/Pastry Chef (12.0501). Between 2019 and 2022, non-community colleges in the CVML region conferred an average of 29 awards annually in related training program(s). All 29 awards were conferred in the SCV/SML subregion.

**Exhibit 12: Non-Community College Awards, 2019-2022**

<b>CIP Code</b>	<b>Program</b>	<b>Institution</b>	<b>2019-2020 Awards</b>	<b>2020-2021 Awards</b>	<b>2021-2022 Awards</b>	<b>3-Year Award Average</b>
12.0501	Baking and Pastry Arts/Baker/Pastry Chef	Institute of Technology	28	26	34	29
	<b>SCV/SML Subtotal</b>		<b>28</b>	<b>26</b>	<b>34</b>	<b>29</b>
<b>Supply Total/Average</b>			<b>28</b>	<b>26</b>	<b>34</b>	<b>29</b>

## Appendix A: Methodology

The CVML COE prepared this report by analyzing data from occupations and education programs.

Occupational data is derived from Lightcast, a labor market analytics firm that consolidates data from the California Employment Development Department (EDD), U.S. Bureau of Labor Statistics (BLS) and other government agencies. Program supply data is drawn from two systems: Taxonomy of Programs (TOP) and Classification of Instructional Programs (CIP).

Using a TOP-SOC crosswalk, the CVML COE identified middle-skill jobs for which programs within these TOP codes train. Middle-skill jobs include:

- 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.

The CVML COE determined labor market supply for an occupation or SOC code by analyzing the number of program completers or awards in a related TOP or CIP code. The COE developed a "supply table" with this information, which is the source of the program supply data for this report. TOP code data comes from the California Community Colleges Chancellor's Office MIS Data Mart ([datamart.cccco.edu](http://datamart.cccco.edu)) and CIP code data comes from the Integrated Postsecondary Education Data System ([nces.ed.gov/ipeds/use-the-data](http://nces.ed.gov/ipeds/use-the-data)), also known as IPEDS. TOP is a system of numerical codes used at the state level to collect and report information on California community college programs and courses throughout the state that have similar outcomes. CIP codes are a taxonomy of academic disciplines at institutions of higher education in the United States and Canada. Institutions outside of the California Community College system do not use TOP codes in their reporting systems.

Data included in this analysis represent the labor market demand for relevant positions most closely related to the proposed program as expressed by the requesting college in consultation with the CVML COE. Traditional labor market information was used to show current and projected employment based on data trends, as well as annual average awards granted by regional community colleges. Real-time labor market information captures job post advertisements for occupations relevant to the field of study which can signal demand and show what employers are looking for in potential employees but is not a perfect measure of the quantity of open positions.

All representations have been produced from primary research and/or secondary review of publicly and/or privately available data and/or research reports. The most recent data available at the time of the analysis was examined; however, data sets are updated regularly and may not be consistent with previous reports. Efforts have been made to qualify and validate the accuracy of the data and findings; however, neither the Centers of Excellence for Labor Market Research (COE), COE host district, nor California Community Colleges Chancellor's Office are responsible for the applications or decisions made by individuals and/or organizations based on this study or its recommendations.

## Appendix B: Data Sources

Data Type	Source
Occupational Projections, Wages, and Job Postings	<p>Traditional labor market information data is sourced from Lightcast, a labor market analytics firm. Lightcast occupational employment data are based on final Lightcast industry data and final Lightcast staffing patterns. Wage estimates are based on Occupational Employment Statistics and the American Community Survey. For more information, see <a href="https://lightcast.io/">https://lightcast.io/</a></p>
Living Wage	<p>The living wage is derived from the Insight Center's California Family Needs Calculator, which measures the income necessary for an individual of family to afford basic expenses. The data assesses the cost of housing, food, childcare, health care, transportation, and taxes. For more information, see: <a href="https://selfsufficiencystandard.org/California/">https://selfsufficiencystandard.org/California/</a></p> <p>Wage figures are used by the CCCCCO to calculate the percentage of students that attained the regional living wage.</p>
Typical Education and Training Requirements, and Educational Attainment	<p>The Bureau of Labor Statistics (BLS) provides information about education and training requirements for hundreds of occupations. BLS uses a system to assign categories for entry-level education, work experience in a related occupation, and typical on-the-job training to each occupation for which BLS publishes projections data. For more information, see <a href="https://www.bls.gov/emp/documentation/education/tech.htm">https://www.bls.gov/emp/documentation/education/tech.htm</a></p>
Emerging Occupation Descriptions, Additional Education Requirements, and Employer Preferences	<p>The O*NET database includes information on skills, abilities, knowledges, work activities, and interests associated with occupations. For more information, see <a href="https://www.onetonline.org/help/online/">https://www.onetonline.org/help/online/</a></p>
Educational Supply	<p>The CCCCCO Data Mart provides information about students, courses, student services, outcomes and faculty and staff. For more information, see: <a href="https://datamart.cccco.edu">https://datamart.cccco.edu</a></p> <p>The National Center for Education Statistics (NCES) Integrated Postsecondary Integrated Data System (IPEDS) collects data on the number of postsecondary awards earned (completions). For more information, see <a href="https://nces.ed.gov/ipeds/use-the-data/survey-components/7/completions">https://nces.ed.gov/ipeds/use-the-data/survey-components/7/completions</a></p>
Student Metrics and Demographics	<p>DataVista, a statewide data system supported by the California Community Colleges Chancellor's Office and hosted by Cal-PASS Plus, provides data on progress, success, employment, and earnings outcomes for California community college students. For more information, see: <a href="https://datavista.cccco.edu/">https://datavista.cccco.edu/</a></p>

Data Type	Source
Population and Occupation Demographics	<p>The Census Bureau’s American Community Survey (ACS) is the premier source for detailed population and housing information. For more information, see: <a href="https://www.census.gov/programs-surveys/acs">https://www.census.gov/programs-surveys/acs</a></p> <p>Data is sourced from IPUMS USA, a database providing access to ACS and other Census Bureau data products. For more information, see: <a href="https://usa.ipums.org/usa/about.shtml">https://usa.ipums.org/usa/about.shtml</a></p>

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December 2024

