



Program Endorsement Brief

CULINARY ARTS IN THE GREATER SACRAMENTO REGION

North/Far North Center of Excellence
MARCH 2021

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COVID-19 Statement: This report includes employment projection data by EMSI. EMSI’s projections are modeled on recorded (historical) employment figures and incorporate several underlying assumptions, including the assumption that the economy during the projection period will be at approximately full employment or potential output. To the extent that a recession or labor shock, such as the economic effects of COVID-19, can cause long-term structural change, they may impact the projections. At this time, it is not possible to quantify the impact of COVID-19 on projections of industry and occupational employment. Other measures such as unemployment rates and monthly industry employment estimates will reflect the most recent information on employment and jobs in the state and, in combination with input from local employers, may help validate current and future employment needs as depicted here.

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Summary

The North/Far North Center of Excellence for Labor Market Research prepared this report to provide a labor market analysis of educational supply and occupational demand for middle-skilled career pathways in the North (Greater Sacramento) subregion. This report aims to determine if demand in the local labor market is not being met by the supply from existing community college programs and other postsecondary training providers. This report primarily focuses on training that leads to jobs in middle-skilled occupations - that is, occupations that typically require education beyond a high school diploma but less than a bachelor's degree - but may include higher-skilled occupations for training pathways that lead to a bachelor's degree. Lowered skilled occupations are rarely considered in this type of analysis due to the lessened barriers for entry-level work, such as no formal education requirements and no requirements for on-the-job training.

Key findings include:

- The North (Greater Sacramento) region held 9,992 jobs for culinary arts occupations in 2019. Sixty-five percent of these jobs were supervisory roles, such as restaurant and foodservice supervisors, while the remaining 35% were split among chefs and bakers.
- By 2024, culinary arts occupations are projected to have 1,378 annual openings in the North (Greater Sacramento) region. More than two-thirds of the projected openings are for supervisors.
- Entry-level wages for these occupations range from \$12.51 to \$13.32 per hour, while median earnings range from \$14.89 to \$17.50 per hour.
- Job postings for these occupations were concentrated in the Greater Sacramento area, with more than half located in Sacramento County.
- Between 28% and 37% of incumbent workers nationally have education levels consistent with community college offerings (some college or associate degrees).
- Awards data analysis shows that Greater Sacramento community colleges are the primary training providers of culinary art programs in the area. Between the 2017-2018 and 2019-2020 academic years, community colleges issued an average of 66 awards (certificates and associate degrees) in related culinary arts training programs.

Introduction

The North/Far North Center of Excellence was asked to provide labor market information for a proposed program at a regional community college. This report focuses on the following Standard Occupational Classification (SOC) occupations and codes:

- Chefs and Head Cooks (35-1011)
- First-Line Supervisors of Food Preparation and Serving Workers (35-1012)
- Bakers (51-3011)

A review of related programs revealed the following program(s) and Taxonomy of Programs (TOP) code(s) are appropriate for inclusion in this report:

- Nutrition, Foods, and Culinary Arts (1306.00)
- Culinary Arts (1306.30)

The corresponding Classification of Instructional Programs (CIP) code(s) are:

- Foods, Nutrition, and Wellness Studies, General (19.0501)
- Cooking and Related Culinary Arts, General (1205.00)
- Baking and Pastry Arts/Baker/Pastry Chef (12.0501)
- Culinary Arts/Chef Training (12.0503)

The SOC titles, SOC codes, and job descriptions from the Bureau of Labor Statistics (BLS) and O*Net OnLine are shown below.

Chefs and Head Cooks (35-1011)

Direct and may participate in the preparation, seasoning, and cooking of salads, soups, fish, meats, vegetables, desserts, or other foods. May plan and price menu items, order supplies and keep records and accounts.

First-Line Supervisors of Food Preparation and Serving Workers (35-1012)

Directly supervise and coordinate activities of workers engaged in preparing and serving food.

Bakers (51-3011)

Mix and bake ingredients to produce breads, rolls, cookies, cakes, pies, pastries, or other baked goods.

Occupational Demand

Exhibit 1 summarizes the five-year projected job growth for the North (Greater Sacramento) selected occupations, North/Far North, and California.

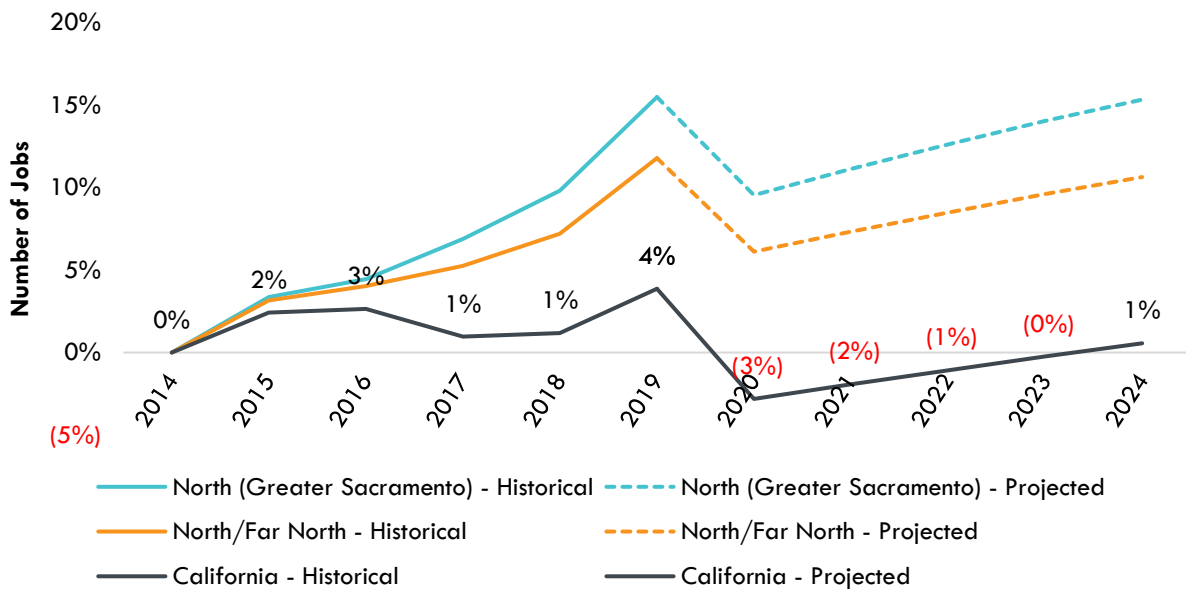
Exhibit 1. Employment and projected demand, 2019-2024¹

Occupation	2019 Jobs	2024 Jobs	2019-2024 Jobs Change	2019-2024 Jobs % Change	2019-2024 Annual Openings
Chefs and Head Cooks	1,584	1,517	(67)	(4%)	187
First-Line Supervisors of Food Preparation and Serving Workers	6,454	6,472	18	0%	938
Bakers	1,955	1,989	35	2%	253
North (Greater Sacramento)	9,992	9,979	(14)	(0%)	1,378
Chefs and Head Cooks	1,865	1,786	(79)	(4%)	220
First-Line Supervisors of Food Preparation and Serving Workers	8,399	8,328	(71)	(1%)	1,201
Bakers	2,457	2,477	19	1%	317
North/Far North	12,721	12,590	(131)	(1%)	1,738
Chefs and Head Cooks	25,454	23,583	(1,872)	(7%)	2,860
First-Line Supervisors of Food Preparation and Serving Workers	98,843	97,004	(1,838)	(2%)	13,961
Bakers	25,361	24,314	(1,047)	(4%)	3,064
California	149,658	144,901	(4,757)	(3%)	19,885

¹ EMSI 2021.1; QCEW, Non-QCEW, and Self-employed.

Exhibit 2 compares the percent change in the number of jobs between 2014 through 2019 and the projected changes through 2024. The rate of change is indexed to the total number of jobs in 2014.

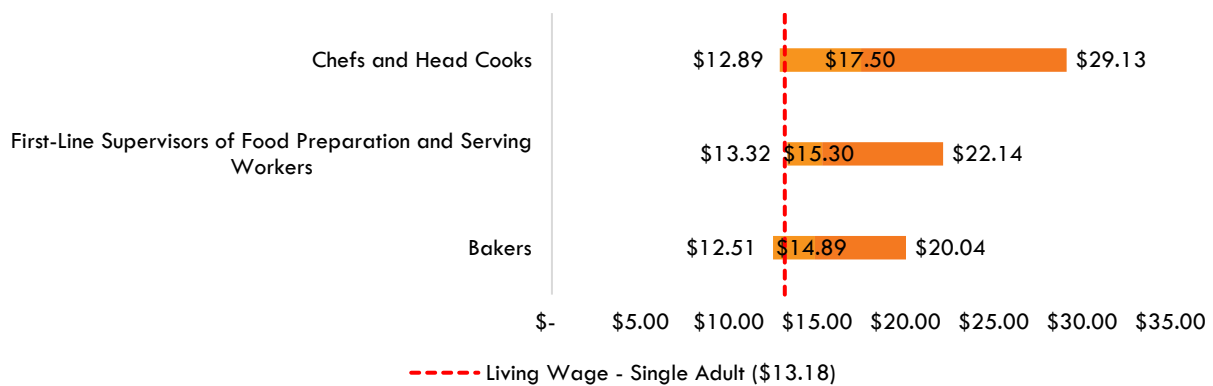
Exhibit 2. Changes in employment, 2014-2024²



Wages

Exhibit 3 compares the entry-level, median, and experienced wages for the selected occupations to the North (Greater Sacramento) living wage for a single adult - \$13.18 per hour.³

Exhibit 3. Comparison of wages by occupation, 2019⁴



² Ibid.

³ Living wage is defined as the level of income a single adult with no children must earn to meet basic needs, including food, housing, transportation, healthcare, taxes, and other miscellaneous basic needs. The 25th-percentile and 75th-percentile hourly wages are used as proxy for entry-level and experienced-level wages.

⁴ Ibid.

Job Postings

This section of the report analyzes recent data from online job postings (real-time LMI). Online job postings may provide additional insight into recent changes in the labor market that are not captured by historical trends.

The NFN COE identified 2,554 new online job postings for the selected occupations in the North (Greater Sacramento) region and Colusa Lake Counties. Job postings data comes from Burning Glass Labor Insights and represents new listings posted online within the last year, from March 1, 2020, to February 28, 2021.

Occupations and Job Titles

Exhibit 4 details the number of online job postings for the selected occupations.

Exhibit 4. Number of job postings by occupation

Occupation	Job Postings	Share of Job Postings
First-Line Supervisors of Food Preparation and Serving Workers	1,485	58%
Bakers	672	26%
Chefs and Head Cooks	397	16%
Total Job Postings	2,554	100%

Exhibit 5 shows the top 10 job titles with the most job postings and the share of job postings. All 2,554 job postings included a job title.

Exhibit 5. Top jobs titles for selected occupations in North (Greater Sacramento)

Job Title	Job Postings	Share of Job Postings
Baker	159	6%
Shift Leader	119	5%
Cake Decorator	71	3%
Shift Supervisor	59	2%
Bakery Clerk	51	2%
Night Baker	49	2%
Shift Lead	43	2%
Sushi Chef	41	2%
Team Leader	37	1%
Food Service Supervisor	35	1%

Employers

Exhibit 6 shows the number of job postings by county for the selected occupations.

Exhibit 6. Counties with the most job postings for selected occupations in North (Greater Sacramento)

County	Job Postings	Share of Job Postings
Sacramento, CA	1,376	54%
Placer, CA	479	19%
Yolo, CA	268	10%
Nevada, CA	202	8%
El Dorado, CA	155	6%
Sutter, CA	36	1%
Yuba, CA	15	1%
Lake, CA	14	1%
Colusa, CA	9	0.4%

Exhibit 7 shows the top 10 industries with the most job postings for the selected occupations. While 40% of job postings were excluded because they did not include industry, the remaining jobs postings illustrate the cross-sector nature of employment for the selected occupations.

Exhibit 7. Industries with the most job postings for selected occupations in North (Greater Sacramento)

Industry Sector (4-digit NAICS)	Job Postings	Share of Job Postings
Restaurants and Other Eating Places	815	32%
Traveler Accommodation	191	7%
Grocery Stores	123	5%
Colleges, Universities, and Professional Schools	38	1%
Special Food Services	37	1%
Other General Merchandise Stores	34	1%
Insurance Carriers	24	1%

Industry Sector (4-digit NAICS)	Job Postings	Share of Job Postings
Department Stores	24	1%
Elementary and Secondary Schools	22	1%
Other Amusement and Recreation Industries	20	1%

Exhibit 8 shows the top 10 employers with the most job postings for the selected occupations. Nine percent of job postings did not include an employer.

Exhibit 8. Employers with the most job postings for selected occupations in North (Greater Sacramento)

Employer	Job Postings	Share of Job Postings
Panera Bread	180	7%
Starbucks Coffee Company	152	6%
Nugget Market	73	3%
Marriott International Incorporated	55	2%
Taco Bell	51	2%
The Save Mart Companies	45	2%
Jack in the Box	39	2%
Vail Resorts Management Company	35	1%
Hard Rock Cafe	34	1%
Sprouts Farmers Markets	32	1%

Skills and Certifications

Exhibit 9 shows the specialized skills most requested by employers for the selected occupations.

Exhibit 9. Top skills for selected occupations in North (Greater Sacramento)

Specialized Skill	Job Postings	Share of Job Postings
Customer Service	631	25%

Specialized Skill	Job Postings	Share of Job Postings
Cooking	589	23%
Scheduling	518	20%
Cleaning	443	17%
Food Safety	385	15%
Retail Industry Knowledge	381	15%
Cash Handling	353	14%
Food Preparation	314	12%
Supervisory Skills	270	11%
Guest Services	266	10%

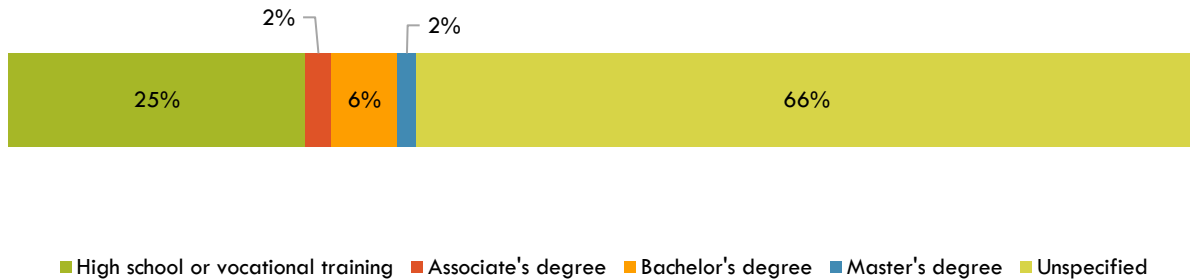
Exhibit 10 shows the most relevant certifications (for the occupations) requested by employers. Nearly 80% of job postings did not mention or require certification, so this list is not representative.

Exhibit 10. Employer-requested, relevant certifications for selected occupations

Relevant Certifications	Job Postings	Share of Job Postings
ServSafe	159	6%
Food Handler Certification	142	6%
Food Service Certification	71	3%
Certified Sous Chef	16	1%
Casino Gaming License	16	1%
Certified Barista	10	0.4%
Cash Handling Certification	7	0.3%
Registered Dietitian	6	0.2%
Baking and Pastry	6	0.2%
Certified Chef	5	0.2%

Exhibit 11 shows the minimum level of education required by employers for job postings for the selected occupations. Sixty-six percent of job postings did not include a preferred education level.

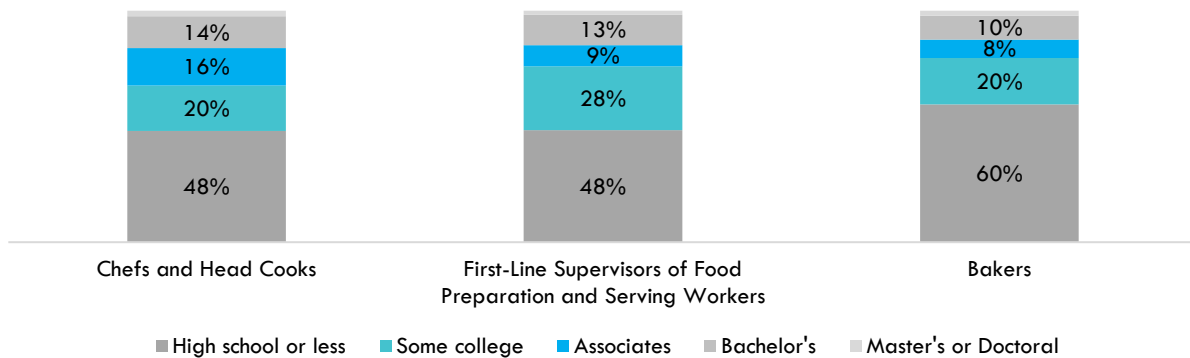
Exhibit 11. Employer-preferred minimum education levels for selected occupations



Education and Training Requirements

The U.S. Census Bureau and Bureau of Labor Statistics collected data on education achieved by workers employed in occupations. Exhibit 12 shows the national-level educational attainment of the current workforce in the selected occupations.

Exhibit 12. Educational attainment for selected occupations, 2019



The Bureau of Labor Statistics (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 the BLS publishes projections data. Exhibit 13 shows the skill level and entry-level job requirements for the selected occupations.

Exhibit 13. Typical education, training, and work experience for selected occupations

Occupation	Skill Level	Typical Entry-Level Education Required	Work Experience Required	Typical On-the-job Training Required
Chefs and Head Cooks	Middle-Skill	High school diploma or equivalent	Five years or more	None

Occupation	Skill Level	Typical Entry-Level Education Required	Work Experience Required	Typical On-the-job Training Required
First-Line Supervisors of Food Preparation and Serving Workers	Middle-Skill	High school diploma or equivalent	Less than five years	None
Bakers*	Low-Skill*	No formal educational credential	None	Long-term on-the-job training

*Low-skilled occupations are not typically included in supply and demand analyses. However, this occupation was included due to the long-term on-the-job training requirements.

Educational Supply

Educational supply for an occupation can be estimated by analyzing the number of awards issued in related Taxonomy of Programs (TOP) or Classification of Instructional Programs (CIP) codes. Exhibit 14 shows the TOP and CIP codes related to the selected occupations.

Exhibit 14. Related TOP and CIP programs and codes for the selected occupations

TOP Programs and Codes	Aligned CIP Programs and Codes
Nutrition, Foods, and Culinary Arts (1306.00)	Foods, Nutrition, and Wellness Studies, General (19.0501)
Culinary Arts (1306.30)	Cooking and Related Culinary Arts, General (1205.00)
N/A	Baking and Pastry Arts/Baker/Pastry Chef (12.0501) Culinary Arts/Chef Training (12.0503)

Community College Supply

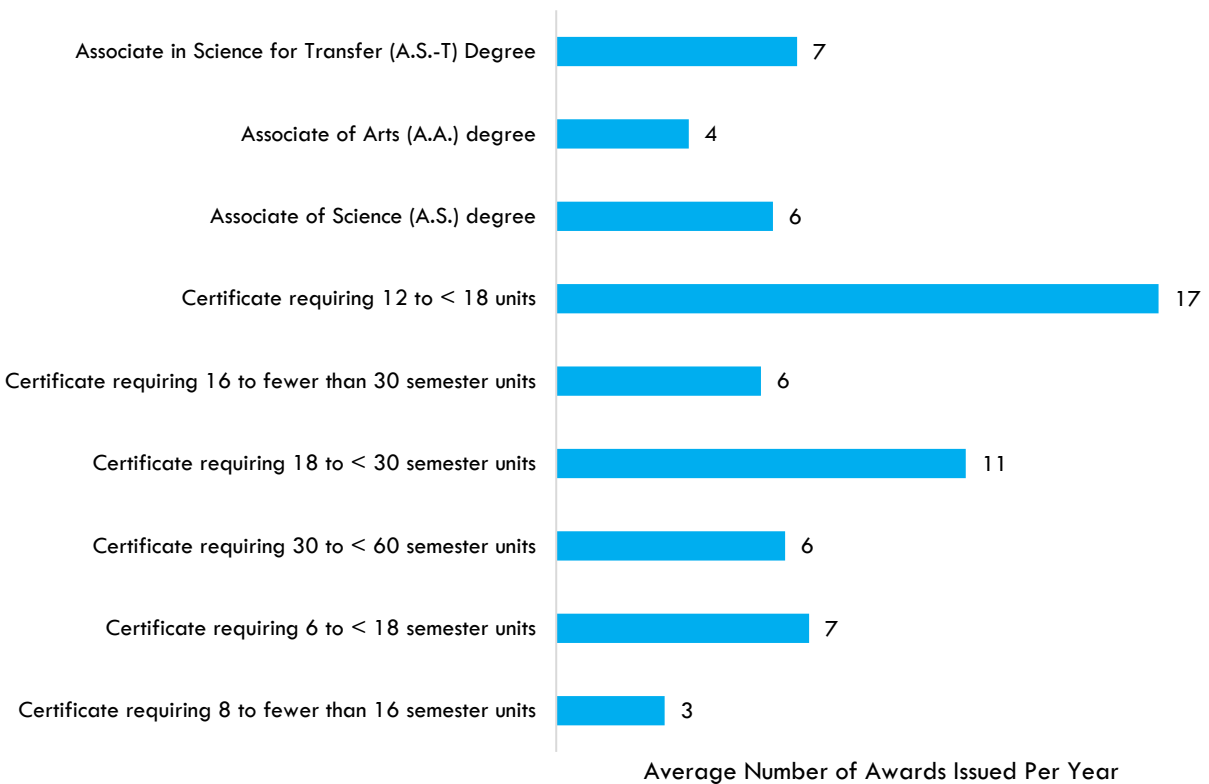
Exhibits 15 and 16 compare the average number of degrees conferred in human service programs by North (Greater Sacramento) postsecondary training providers over the last three academic years.

Exhibit 15. Community college awards (certificates and degrees), 2017-18 through 2019-20

Program	College	Annual Awards 2017-18	Annual Awards 2018-19	Annual Awards 2019-20	3-Year Annual Awards Average
Culinary Arts-1306.30	American River	27	28	19	25
	Cosumnes River	7	0	0	2
	Lake Tahoe	9	2	1	4
	Woodland	10	11	2	8
	Yuba	23	10	6	13

Program	College	Annual Awards 2017-18	Annual Awards 2018-19	Annual Awards 2019-20	3-Year Annual Awards Average
	<i>Subtotals</i>	76	51	28	52
Nutrition, Foods, and Culinary Arts-1306.00	American River	2	2	5	3
	Cosumnes River	6	14	4	8
	Folsom Lake	0	4	4	3
	Sacramento City	1	1	0	1
	Sierra	0	1	0	0
	<i>Subtotals</i>	9	22	13	15
Grand Totals		85	73	41	66

Exhibit 16. Annual average awards by type, 2017-18 through 2019-20



Non-Community College Supply

In the mid-2010s, many private training institutions closed due to changes in the U.S. federal financial aid, namely, installing a gainful employment rule, which impacted schools where students borrowed money at high rates but earned little after graduation. Among the closures were two culinary training providers in the Greater Sacramento region - The Art Institute of California (Argosy University) and Le Cordon Bleu College of Culinary Arts. Since this time, community colleges have been the primary culinary arts programs in the Greater Sacramento subregion. There are currently no other culinary arts training providers in the area.

Findings

- The North (Greater Sacramento) region held 9,992 jobs for culinary arts occupations in 2019. Sixty-five percent of these jobs were supervisory roles, such as restaurant and foodservice supervisors, while the remaining 35% were split among chefs and bakers.
- Jobs for culinary arts occupations are projected to remain relatively stable over the next five years, with job losses in one occupation offset by job gains in the other occupations. Most job loss is expected to happen among chefs, with a decline of 4% or 67 job losses. Bakers and supervisors are projected to add 53 new jobs over the next five years.
- By 2024, culinary arts occupations are projected to have 1,378 annual openings in the North (Greater Sacramento) region. More than two-thirds of the projected openings are for supervisors.
- Wage data shows that jobs in these occupations tend to pay entry-level wages below the living wage of \$13.18 per hour, except supervisory jobs that pay just over the living wage. However, median hourly earnings for the studied occupations are over this threshold, suggesting that more workers than not are earning at least a living wage. Entry-level wages for these occupations range from \$12.51 to \$13.32 per hour, while median earnings range from \$14.89 to \$17.50 per hour.
- According to real-time labor market information, there were just over 2,500 online job postings for culinary art positions between March 1, 2020, and February 28, 2021. Nearly 60% of these job postings were for restaurant and foodservice supervisors, with another 26% for bakers and 16% for chefs.
- Job postings for these occupations were concentrated in the Greater Sacramento area, with more than half located in Sacramento County.
- Analysis of job postings data shows that these occupations' jobs can be found in various settings and with different employers. While a significant share of job postings was in industries typically associated with hospitality (about 40%), these jobs were also found in grocery stores, colleges/universities, and insurance carrier groups. Employers with the largest number of job postings were typically representative of the hospitality sector and included Panera, Starbucks, Marriott Hotels, and the Hard Rock Casino Hotel.
- Between 48% and 60% of workers have a high school diploma or less, suggesting that formalized awards (i.e., certificates and degrees) aren't necessary for work in these occupations. Between 28% and 37% of incumbent workers nationally have education levels consistent with community college offerings (some college or associate degrees).
- While the incumbent workforce in culinary arts occupations tends to have lower educational attainment levels, these occupations require some work experience or on-the-job training for entry-

level work. Chefs typically need at least five years of work experience before stepping into that role, while bakers tend to require long-term on-the-job training, and supervisors require up to five years of job experience. Community colleges can provide training to satisfy some of these work requirements.

- Awards data analysis shows that Greater Sacramento community colleges are the primary training providers of culinary art programs in the area. Non-community college training providers closed in the mid-2010s due to changes in federal financial aid requirements. Between the 2017-2018 and 2019-2020 academic years, community colleges issued an average of 66 awards (certificates and associate degrees) in related culinary arts training programs. The most conferred award type (based on an average) were certificates, with an average of 48 conferred each year (vs. 17 associate degrees). Certificates requiring 12-18 and 18-30 semester units were the most popular option (representing more than half of certificates awarded, based on an average of 28 issued each year over the last three academic years).

Recommendations

- The supply gap analysis shows, based on a three-year average of annual awards in North (Greater Sacramento) region culinary arts training programs and projected yearly openings, the region seems to have room for new training programs related to these occupations.
 - Culinary arts training programs issued an average of 66 awards over the last three years, and there are 1,378 projected annual openings for related middle-skilled culinary arts occupations.
- However, educational attainment and entry-level work requirements suggest that workers can find their way into these jobs without going through a community college program. Community colleges should work with industry partners to clarify the value-add of earning a certificate or degree in a culinary arts program.
- Entry-level wages should also pose a concern for community colleges offering training in this field. Entry-level wages typically fall just below or slightly above the living wage of \$13.18 per hour. However, median hourly earnings for the studied occupations are over this threshold, suggesting that more workers than not are earning at least a living wage. Community colleges should work with industry partners to clarify how a culinary arts certificate or degree would impact earnings for students completing a program.
- The North/Far North Center of Excellence recommends cautiously moving forward with the program development.

COE Recommendation		
Move forward with the program	Proceed with caution	Program is not recommended
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Appendix A. Methodology and Sources

Occupations in this report were identified using O*Net. This report's findings were determined using labor market data from the Bureau of Labor Statistics (BLS), U.S. Census Bureau data from Emsi, and jobs posting data from Burning Glass.

Sources used for data analysis purposes in this report include:

Cal-PASS Plus LaunchBoard. California Community Colleges Chancellor's Office.
<https://www.calpassplus.org/LaunchBoard/Home.aspx>.

Emsi. <https://www.economicmodeling.com/>. 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).

Educational Attainment for Workers 25 Years and Older by Detailed Occupation, 2016-2017. Bureau of Labor Statistics. <https://www.bls.gov/emp/tables/educational-attainment.htm#>.

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<https://labormarketinfo.edd.ca.gov/>.

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<https://www.cccco.edu/-/media/CCCCO-Website/About-Us/Divisions/Educational-Services-and-Support/Academic-Affairs/What-we-do/Curriculum-and-Instruction-Unit/Files/TOPmanual6200909corrected12513pdf.ashx>.

For more information, please contact:

Ebony J. Benzing, Manager
North/Far North Center of Excellence
Ebony.Benzing@losrios.edu

