

Labor Market Analysis for Program Recommendation: 1306.00/Nutrition, Foods, and Culinary Arts (Nutrition and Food Foundation)

Orange County Center of Excellence, November 2022



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"/>
-------------------------	---	---	---

Program LMI Endorsement Criteria

	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Supply Gap:	<i>Comments:</i> there is projected to be 7,819 annual job openings throughout Los Angeles and Orange counties for these nutrition and food occupations, which is more than the 1,025 awards conferred by educational institutions.	
Living Wage: (Entry-Level, 25 th)	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
	<i>Comments:</i> All annual job openings for these nutrition and food occupations have entry-level hourly wages significantly below the OC living wage of \$20.63.	
Education:	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
	<i>Comments:</i> The typical entry-level education for these nutrition and food occupations ranges from no formal educational credential to an associate degree. Furthermore, a significant number of workers in the field have completed some college or an associate degree as their highest level of education.	

Emerging Occupation(s)

Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
<i>Comments:</i> N/A	

The Orange County Center of Excellence for Labor Market Research (OC COE) prepared this report to determine whether there is a supply gap in the Los Angeles/Orange County regional labor market related to three middle-skill occupations:

- Dietetic Technicians (29-2051)
- First-Line Supervisors of Food Preparation and Serving Workers (35-1012)
- Cooks, Institution and Cafeteria (35-2012)

Based on the available data there appears to be a supply gap for these nutrition and food occupations and typical education requirements for these occupations align with a community college education. However, all annual job openings have entry-level wages significantly below the living wage. **Therefore, 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 the occupations included in this report.

Exhibit 1: Labor Market Endorsement Summary

Occupation (SOC)	Demand (Annual Openings)	Supply (CC and Non-CC)	Entry-Level Hourly Earnings (25 th Percentile)	Typical Entry-Level Education	Community College Educational Attainment
Dietetic Technicians (29-2051)	107	22	OC: \$17.30	Associate degree	41%
First-Line Supervisors of Food Preparation and Serving Workers (35-1012)	6,443	988	OC: \$17.00	High school diploma or equivalent	38%
Cooks, Institution and Cafeteria (35-2012)	1,269	15	OC: \$17.55	No formal educational credential	25%
Total	7,819	1,025	N/A	N/A	N/A

Demand:

- The number of jobs related to these nutrition and food occupations are projected to increase 5% through 2026, equating to 7,819 annual job openings.
- Hourly entry-level wages for these nutrition and food occupations range from \$17.00 to \$17.55 in Orange County; all annual job openings have entry-level wages significantly below the living wage.
- There were 15,181 online job postings for these nutrition and food occupations over the past 12 months. The highest number of postings were for shift leaders, shift supervisors, and team leads.
- The typical entry-level education for these nutrition and food occupations ranges from no formal educational credential to an associate degree.
- Between 25% and 41% of workers in the field have completed some college or an associate degree as their highest level of educational attainment.

Supply:

- There was an average of 904 awards conferred by 21 community colleges in Los Angeles and Orange Counties from 2018 to 2021.
- Non-community college institutions conferred an average of 121 awards from 2017 to 2020.
- Orange County community college students that exited nutrition, foods, and culinary arts programs in the 2018-2019 academic year had a median annual wage of \$27,662 after exiting the program and 33% attained the regional living wage.
- Throughout Orange County, 65% of nutrition and food students that exited their program in 2017-18 reported that they are working in a job closely related to their field of study.

Demand

Occupational Projections:

Exhibit 2 shows the annual percent change in jobs for these nutrition and food occupations from 2016 through 2026. There was an 11% decline in employment for these nutrition and food occupations from 2019 to 2020 in Orange County, which is higher than the 7% decline across all occupations from 2019 to 2020 due to the COVID-19 pandemic. However, employment for these nutrition and food occupations increased 24% from 2020 to 2021. Employment for these nutrition and food occupations is projected to grow at a slightly higher rate than all occupations through 2026.

Exhibit 2: Annual Percent Change in Jobs for Nutrition and Food Occupations, 2016-2026

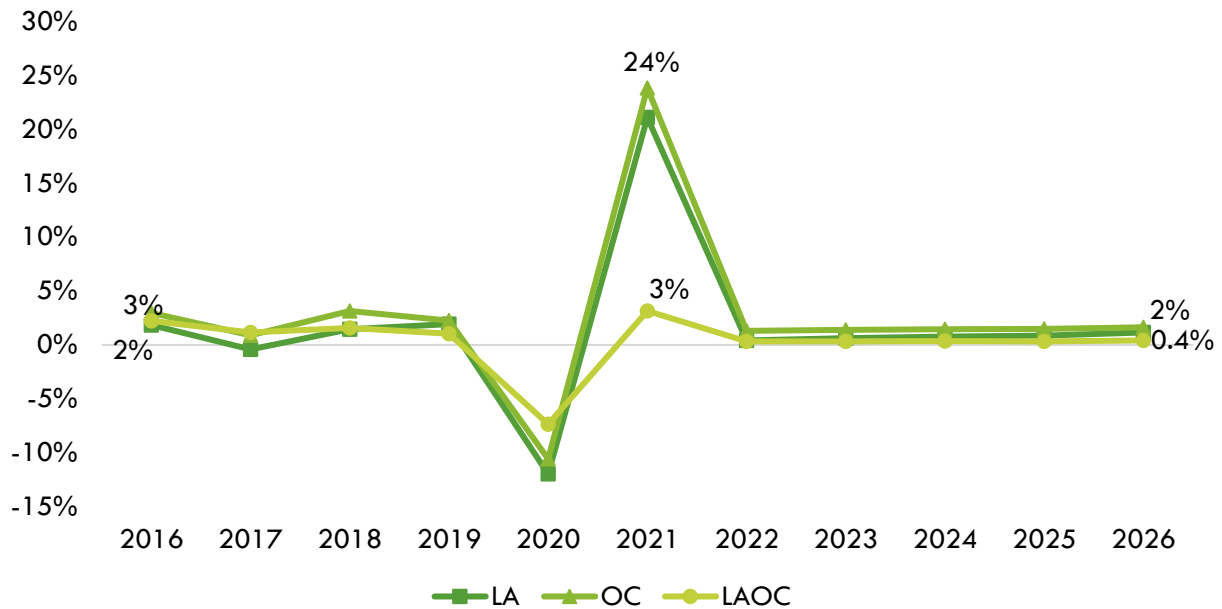


Exhibit 3 shows the five-year occupational demand projections for these nutrition and food occupations. In Los Angeles/Orange County, the number of jobs related to these occupations is projected to increase by 5% through 2026. There is projected to be 7,819 jobs available annually.

Exhibit 3: Occupational Demand in Los Angeles and Orange Counties¹

Geography	2021 Jobs	2026 Jobs	2021-2026 Change	2021-2026 % Change	Annual Openings
Los Angeles	36,672	38,112	1,440	4%	5,658
Orange	13,150	14,140	990	8%	2,161
Total	49,822	52,252	2,430	5%	7,819

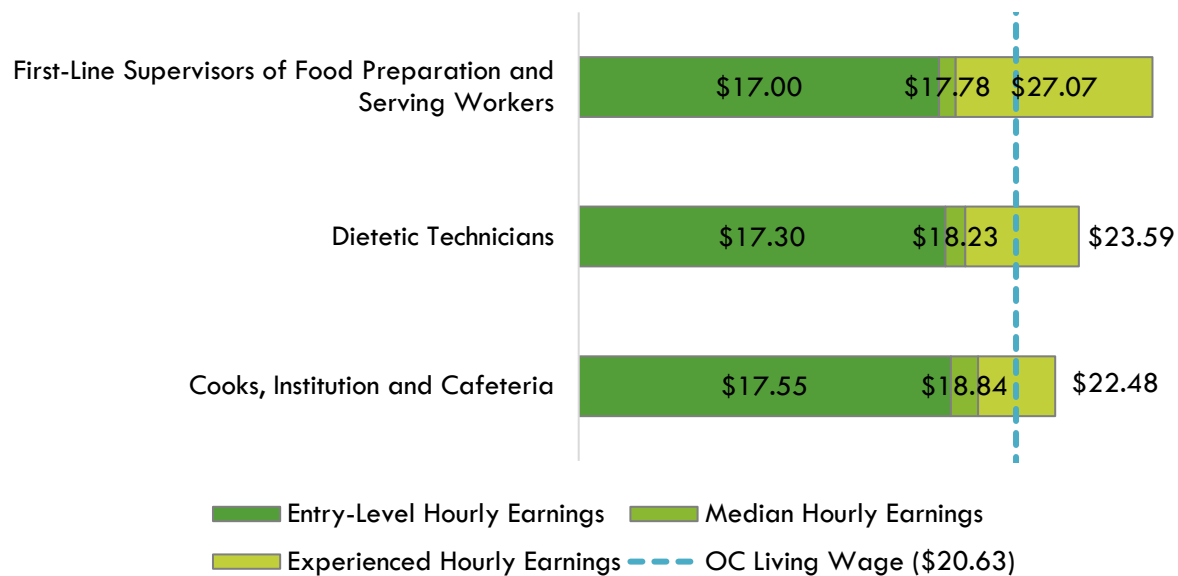
¹ Five-year change represents new job additions to the workforce. Annual openings include new jobs and replacement jobs that result from retirements and separations.

Wages:

The labor market endorsement in this report considers the entry-level hourly wages for these nutrition and food occupations in Orange County as they relate to the county's living wage. Los Angeles County wages are included below in order to provide a complete analysis of the LA/OC region.

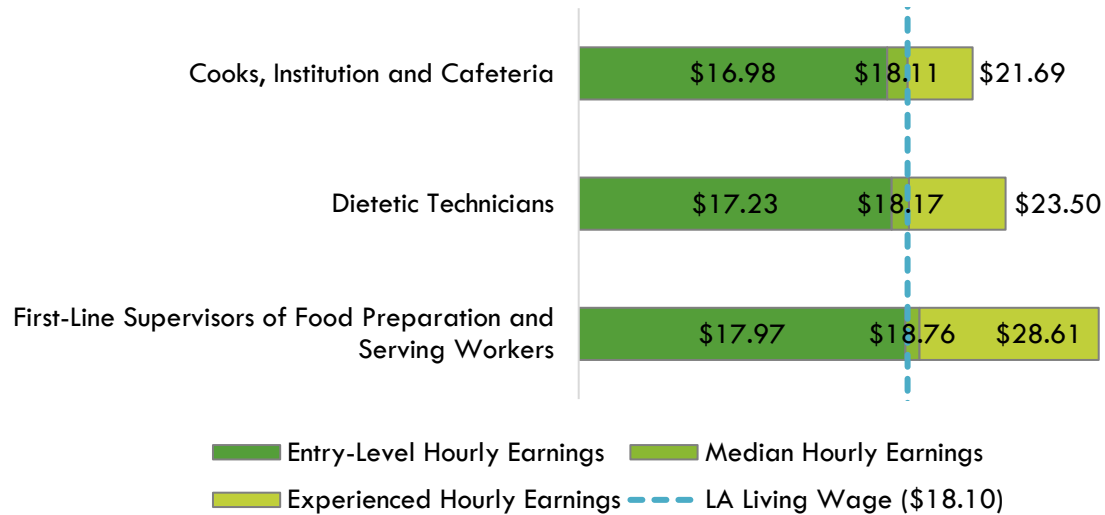
All annual openings for these nutrition and food occupations have entry-level wages significantly below the living wage for one adult (\$20.63 in Orange County). Typical entry-level hourly wages range between \$17.00 and \$17.55. Though median wages are also below the living wage, experienced workers can expect to earn between \$22.48 and \$37.07, which is above the living wage. Orange County's average wages are nearly identical to the average statewide wage of \$21.42 for these occupations. Exhibit 4 shows the wage range for each of these nutrition and food occupations in Orange County and how they compare to the regional living wage, sorted from lowest to highest entry-level wage.

Exhibit 4: Wages by Occupation in Orange County



All annual openings for these nutrition and food occupations have entry-level wages below the living wage for one adult (\$18.10 in Los Angeles County). Typical entry-level hourly wages are in a range between \$16.98 and \$17.97. Median wages for these occupations range from \$18.11 to \$18.76, which is above the living wage. Los Angeles County's average wages are slightly above the average statewide wage of \$21.42 for these occupations. Exhibit 5 shows the wage range for each of these nutrition and food occupations in Los Angeles County how they compare to the regional living wage, sorted from lowest to highest entry-level wage.

Exhibit 5: Wages by Occupation in Los Angeles County



Job Postings:

There were 15,181 online job postings related to these nutrition and food occupations listed in the past 12 months. Exhibit 6 shows the number of job postings by occupation. Nearly all job postings were for *first-line supervisors of food preparation and serving workers* (97%).

Exhibit 6: Number of Job Postings by Occupation (n=15,181)

Occupation	Job Postings	Percentage of Job Postings
First-Line Supervisors of Food Preparation and Serving Workers	14,786	97%
Dietetic Technicians	270	2%
Cooks, Institution and Cafeteria	125	1%
Total Postings	15,181	100%

The top employers in the region, by number of job postings, are shown in Exhibit 7.

Exhibit 7: Top Employers by Number of Job Postings (n=15,181)

Employer	Job Postings	Percentage of Job Postings
Starbucks	2,213	15%
Target	376	2%
Rubio's Restaurants	332	2%
Taco Bell	270	2%
AmeriCorps NCCC	242	1%
Great Wolf Lodge	202	1%
Sweetgreen	183	1%
Tri Star Foods	159	1%
Hilton Hotels & Resorts	156	1%
Disneyland Resort	152	1%

The top specialized, soft, and software/computer skills 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=15,181)

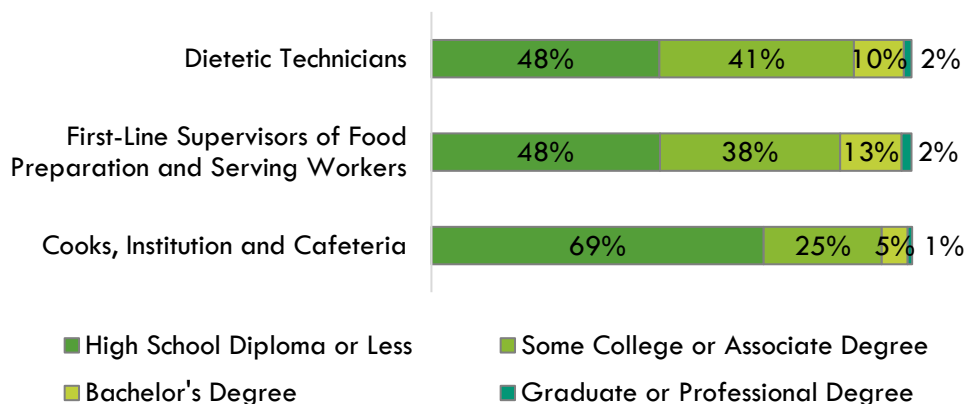
Top Specialized Skills	Top Soft Skills	Top Computer Skills
Restaurant Operation (7,165)	Customer Service (7,198)	Microsoft Office (586)
Cash Handling (3,689)	Communications (6,467)	Microsoft Excel (535)
Food Safety And Sanitation (2,743)	Leadership (5,992)	Microsoft Outlook (429)
Food Services (2,157)	Management (5,034)	Microsoft Word (229)
Retail Operations (2,142)	Operations (3,823)	Microsoft PowerPoint (221)
Cash Register (1,365)	Interpersonal Communications (3,169)	Software Systems (127)
Customer Complaint Resolution (1,252)	Verbal Communication Skills (2,623)	Java (Programming Language) (104)
Food Quality Assurance And Control (1,144)	Coordinating (2,493)	Operating Systems (97)
Merchandising (951)	Energetic (2,492)	Microsoft Access (69)
Restaurant Management (935)	Lifting Ability (2,442)	Google Workspace (26)

Educational Attainment:

The Bureau of Labor Statistics (BLS) lists no formal educational credential as the typical entry-level education for *cooks, institution and cafeteria* a high school diploma or equivalent for *first-line supervisors of food preparation and serving workers* and an associate degree for *dietetic technicians*. The national-level educational attainment data indicates between 25% and 41% of workers in the field have completed some college or an associate degree as their highest level of education. Exhibit 9 shows the educational attainment for each occupation, sorted by highest community college educational attainment to lowest.

Of the 30% of the cumulative job postings for these nutrition and food occupations that listed a minimum education requirement in Los Angeles/Orange County, 86% (3,847) requested a high school diploma or an associate degree and 14% (634) requested a bachelor's degree.

Exhibit 9: National-level Educational Attainment for Occupations



Educational Supply

Community College Supply:

Exhibit 10 shows the three-year average number of awards conferred by community colleges in the related TOP codes: Nutrition, Foods, and Culinary Arts (1306.00), Dietetic Services and Management (1306.20), Culinary Arts (1306.30), Dietetic Technology (1306.60), and Restaurant and Food Services and Management (1307.10). The colleges with the most completions in the region are: LA Mission, Cypress, LA Trade, and Orange Coast. Over the past 12 months, there were three other related program recommendation requests from regional community colleges.

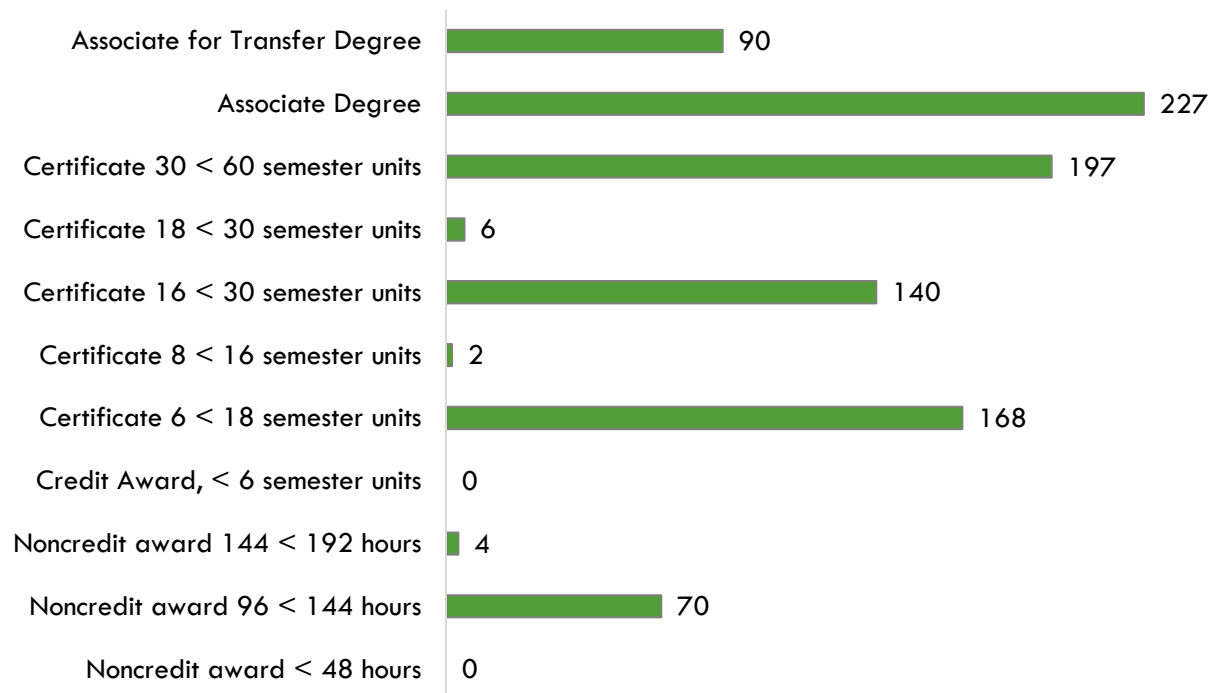
Exhibit 10: Regional Community College Awards (Certificates and Degrees), 2018-2021

TOP Code	Program	College	2018-2019 Awards	2019-2020 Awards	2020-2021 Awards	3-Year Award Average
1306.00	Nutrition, Foods, and Culinary Arts	Citrus	0	0	4	1
		East LA	14	23	18	18
		Glendale	3	6	0	3
		LA City	0	1	0	0
		LA Mission	4	4	7	5
		LA Southwest	0	0	2	1
		Long Beach	8	8	19	12
		Mt San Antonio	15	15	19	16
		Pasadena	2	2	10	5
		Rio Hondo	0	1	3	1
		Santa Monica	3	5	9	6
		West LA	4	2	4	3
		LA Subtotal	53	67	95	71
		Cypress	0	2	1	1
		Fullerton	6	8	17	10
		Orange Coast	17	20	17	18
		Saddleback	26	19	24	23
		Santa Ana	3	3	1	2
		OC Subtotal	52	52	60	54
		Supply Subtotal/Average			105	119
1306.20	Dietetic Services and Management	Glendale	14	16	12	14
		LA City	7	7	8	7
		Long Beach	8	5	8	6
		LA Subtotal	29	28	28	27
		Orange Coast	11	3	6	7
		OC Subtotal	11	3	6	7
Supply Subtotal/Average			60	67	65	64

TOP Code	Program	College	2018-2019 Awards	2019-2020 Awards	2020-2021 Awards	3-Year Award Average
1306.30	Culinary Arts	Cerritos	69	86	68	75
		Glendale	1	0	0	0
		LA Harbor	61	14	40	38
		LA Mission	146	151	74	124
		LA Trade	144	80	71	98
		Long Beach	48	44	46	46
		Mt San Antonio	16	15	3	11
		LA Subtotal	485	390	302	392
		Cypress	99	61	58	73
		Orange Coast	76	82	60	72
		Saddleback	32	23	28	27
		Santa Ana	0	0	1	0
		Santiago Canyon	89	55	67	70
		OC Subtotal	296	221	214	242
Supply Subtotal/Average			781	611	516	634
1306.60	Dietetic Technology	Long Beach	13	12	17	14
		LA Subtotal	13	12	17	14
		Orange Coast	13	2	8	8
		OC Subtotal	13	2	8	8
Supply Subtotal/Average			26	14	25	22
1307.10	Restaurant and Food Services Management	Cerritos	5	6	11	7
		LA Mission	26	40	15	27
		LA Trade	12	11	5	9
		Mt San Antonio	13	8	1	7
		LA Subtotal	56	65	32	50
		Cypress	59	41	15	38
		Orange Coast	2	0	1	1
		OC Subtotal	61	41	16	39
Supply Subtotal/Average			117	106	48	89
Supply Total/Average			1,069	881	778	904

Exhibit 11 shows the annual average community college awards by type from 2018-19 through 2020-21. The plurality of the awards are for associate degrees, followed by certificates between 30 and less than 60 semester units, and certificates between 6 and less than 18 semester units.

Exhibit 11: Annual Average Community College Awards by Type, 2018-2021



Community College Student Outcomes:

Exhibit 12 shows the Strong Workforce Program (SWP) metrics for nutrition, foods, and culinary arts programs at Rancho Santiago Community College District (RSCCD), the Orange County Region, and California. Of the 6,957 nutrition, foods, and culinary arts students in the 2019-20 academic year, 23% (1,608) attended a RSCCD college.

Additionally, RSCCD students that exited nutrition, foods, and culinary arts programs in the 2018-19 academic year had a higher percentage change in median annual earnings (46%) compared to all nutrition, foods, and culinary arts students in Orange County (32%) and statewide (24%). However, median earnings after exiting for RSCCD nutrition, foods, and culinary arts students were \$27,662, which is similar to both Orange County (\$27,772) and statewide (\$27,540); all figures are significantly below the living wage.

Exhibit 12: Nutrition, Foods, and Culinary Arts (1306.00) Strong Workforce Program Metrics, 2019-20²

SWP Metric	RSCCD	OC Region	California
SWP Students	1,608	6,957	60,356
SWP Students Who Earned 9 or More Career Education Units in the District in a Single Year	9%	12%	14%
SWP Students Who Completed a Noncredit CTE or Workforce Preparation Course	90%	89%	76%

² All SWP metrics are for 2019-20 unless otherwise noted.

SWP Metric	RSCCD	OC Region	California
SWP Students Who Earned a Degree or Certificate or Attained Apprenticeship Journey Status	Insufficient Data	49	252
SWP Students Who Transferred to a Four-Year Postsecondary Institution (2018-19)	119	518	4,089
SWP Students with a Job Closely Related to Their Field of Study (2017-18)	Insufficient Data	65%	61%
Median Annual Earnings for SWP Exiting Students (2018-19)	\$27,662 (\$13.30)	\$27,772 (\$13.35)	\$27,540 (\$13.24)
Median Change in Earnings for SWP Exiting Students (2018-19)	46%	32%	24%
SWP Exiting Students Who Attained the Living Wage (2018-19)	33%	27%	40%

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 these nutrition and food occupations. Exhibit 13 shows the annual and three-year average number of awards conferred by these institutions in the related Classification of Instructional Programs (CIP) Codes: Culinary Arts/Chef Training (12.0503) and Food Preparation/Professional Cooking/Kitchen Assistant (12.0505). Due to different data collection periods, the most recent three-year period of available data is from 2017 to 2020. Between 2017 and 2020, non-community college institutions in the region conferred an average of 121 awards annually in related training programs.

Exhibit 13: Regional Non-Community College Awards, 2017-2020

CIP Code	Program	College	2017-2018 Awards	2018-2019 Awards	2019-2020 Awards	3-Year Award Average
12.0503	Culinary Arts/Chef Training	Hacienda La Puente Adult Education	19	6	9	11
		Institute of Culinary Education	0	86	164	83
		University of Antelope Valley	36	0	0	12
Supply Subtotal/Average			55	92	173	106
12.0505	Food Preparation/Professional Cooking/Kitchen Assistant	Baldwin Park Adult & Community Education	21	25	0	15
		Supply Subtotal/Average	21	25	0	15
Supply Total/Average			76	117	173	121

Regional Demographics

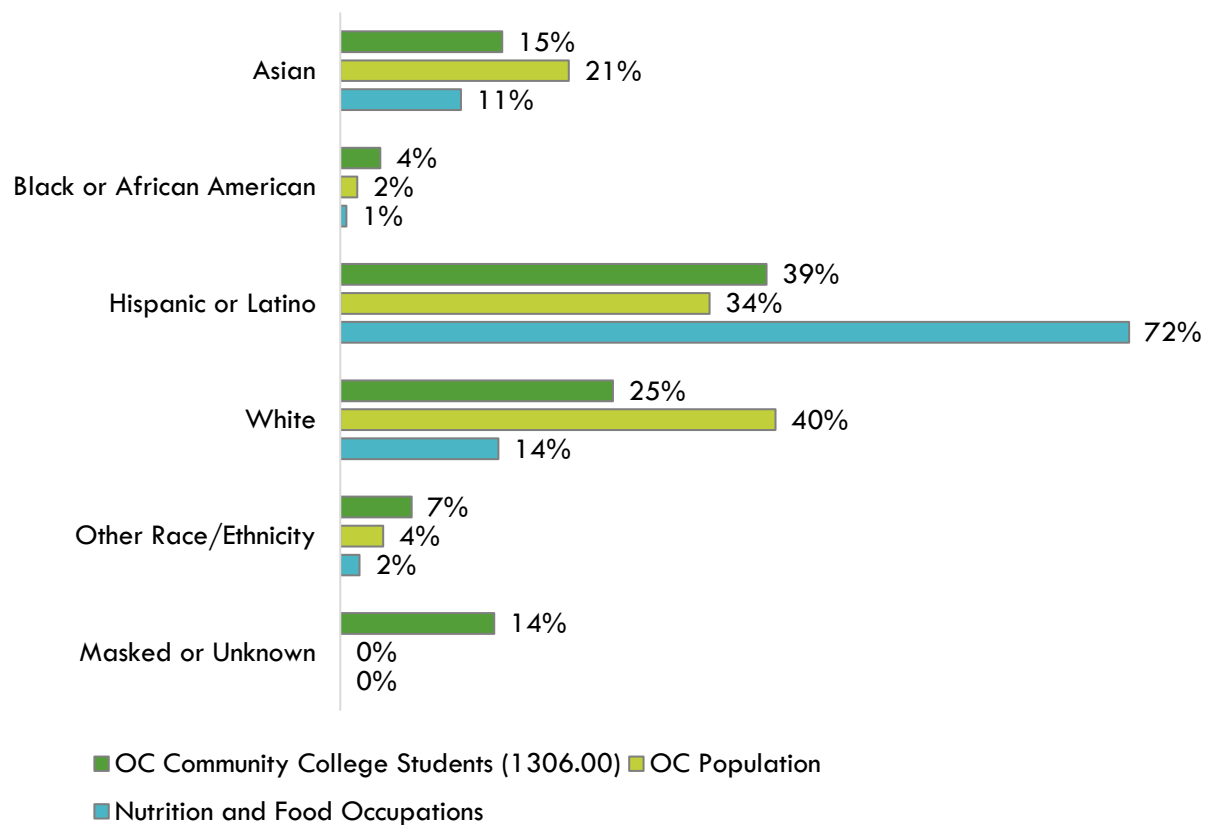
This section analyzes demographic data for Orange County community college students enrolled in nutrition, foods, and culinary arts programs compared to the OC population, as well occupational data, for the purpose of identifying potential diversity and equity issues that can be addressed by community college programs.

Ethnicity:

Exhibit 14 shows the ethnicity of Orange County community college students enrolled in nutrition, foods, and culinary arts programs compared to the overall Orange County population, as well as the three nutrition and food occupations included in this report. Notably, the overwhelming majority of workers employed in these nutrition and food occupations are Hispanic or Latino (72%), which is significantly higher than the population (34%) and community college nutrition, foods, and culinary arts students (39%).

Examining disaggregated data for each occupation (not shown), the occupation with the highest percentage of Hispanic or Latino workers is *cooks, institution and cafeteria* (75%), which has the lowest typical entry-level education requirements but the highest entry-level wages of all three nutrition and food occupations. However, this occupation also has the lowest experienced wages, indicating that the long-term earnings potential of this occupation is low compared to the other two occupations in this report. *First-line supervisors of food preparation and serving workers* also has a high percentage of Hispanic or Latino workers (62%) and has the highest experienced wages of all three occupations in this report. Notably, only 20% of *dietetic technicians* – which has the highest typical entry-level education requirements – are Hispanic or Latino. *Dietetic technicians* has a significantly higher percentage of Asian workers (47%) compared to the population (21%) and nutrition, foods, and culinary arts students (15%).

Exhibit 14: Program and County Demographics by Ethnicity

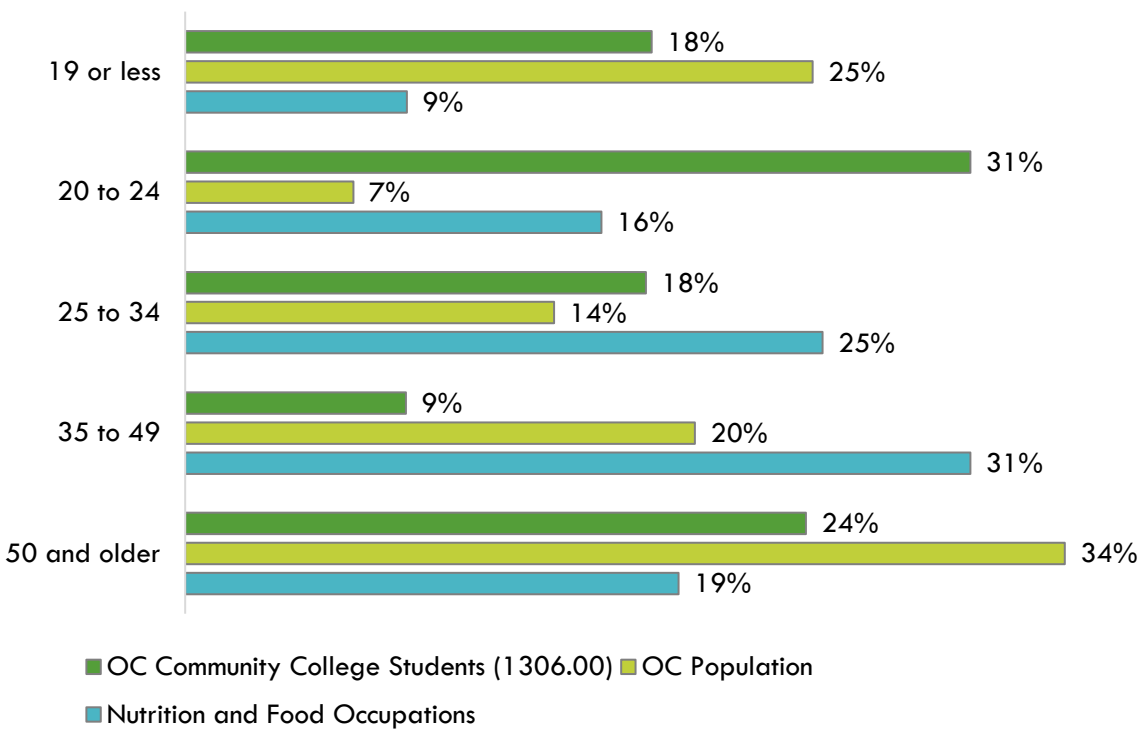


Age:

Exhibit 14 shows the age of Orange County community college students enrolled in nutrition, foods, and culinary arts programs compared to the overall Orange County population, as well as the three nutrition and food occupations included in this report. The plurality of workers in these nutrition and food occupations are 35 to 49 (31%), which is higher than the population (20%) and significantly higher than community college nutrition, foods, and culinary arts students (9%). Conversely, nearly half of community college nutrition, foods, and culinary arts are 24 or less (49%), which is much higher than the population (32%), and workers in these nutrition and food occupations (25%).

Examining disaggregated data for each occupation (not shown), 34% of *first-line supervisors of food preparation and serving workers* and *dietetic technicians* are 24 or less, which is significantly higher than *cooks, institution and cafeteria* (23%). Conversely, 42% of *cooks, institution and cafeteria* are 40 and older, which is significantly higher than *First-line supervisors of food preparation and serving workers* (33%) and *dietetic technicians* (14%).

Exhibit 14: Program and County Demographics by Age

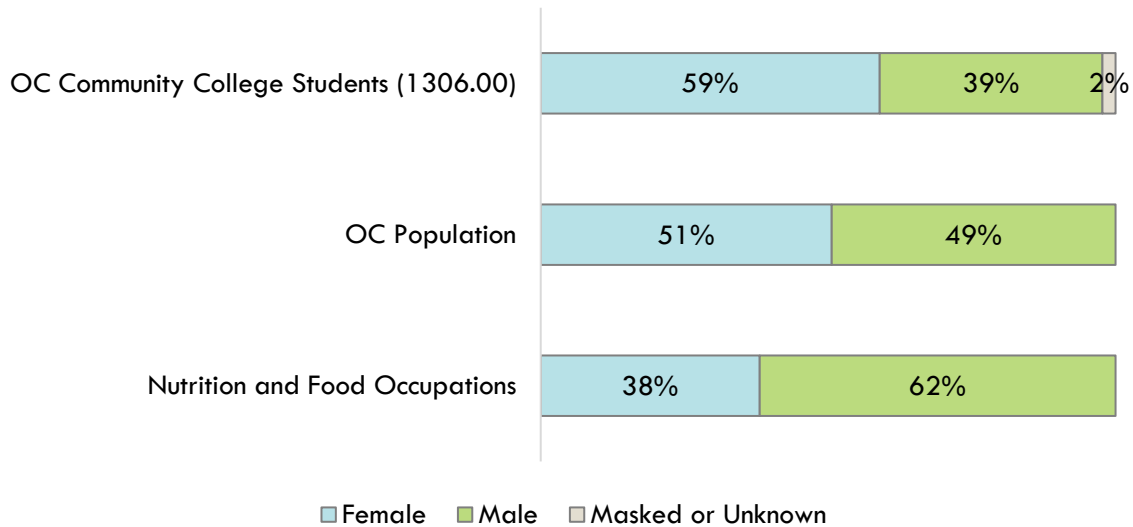


Sex:

Exhibit 15 shows the sex of Orange County community college students enrolled in nutrition, foods, and culinary arts programs compared to the overall Orange County population as well as these nutrition and food occupations.

Though the Orange County population is split nearly evenly, 59% of community college nutrition, foods, and culinary arts students are women but 62% of workers in these nutrition and food occupations are men. Examining disaggregated data by occupation (not shown), *first-line supervisors of food preparation and serving workers* is split nearly evenly, but there is a higher percentage of male *dietetic technicians* (73%) and *cooks, institution and cafeteria* (65%).

Exhibit 15: Program and County Demographics by Sex



Appendix A: Methodology A

The OC 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 OC 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 OC 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) and CIP code data comes from the Integrated Postsecondary Education Data System (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 OC 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 https://lightcast.io/</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, child care, health care, transportation, and taxes. For more information, see: https://insightccd.org/family-needs-calculator/</p> <p>The living wage for one adult in Orange County is \$20.63 per hour (\$42,910.40 annually). This figure is 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 https://www.bls.gov/emp/documentation/education/tech.htm</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 https://www.onetonline.org/help/online/</p>
Educational Supply	<p>The CCCCCO Data Mart provides information about students, courses, student services, outcomes and faculty and staff. For more information, see: https://datamart.cccco.edu</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 https://nces.ed.gov/ipeds/use-the-data/survey-components/7/completions</p>
Student Metrics and Demographics	<p>LaunchBoard, 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: https://www.calpassplus.org/LaunchBoard/Home.aspx</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: https://www.census.gov/programs-surveys/acs</p> <p>Data is sourced from IPUMS USA, a database providing access to ACS and other Census Bureau data products. For more information, see: https://usa.ipums.org/usa/about.shtml</p>

For more information, please contact the Orange County Center of Excellence:

Jesse Crete, Ed. D., Director
 crete_jesse@rscdd.edu

Jacob Poore, Research Analyst
 poore_jacob@rscdd.edu

November 2022

