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

Orange County Center of Excellence, February 2024

Summary

Program LMI Endorsement	Endorsed: All LMI Criteria Met ☐	Endorsed: Some LMI Criteria Met ☒	Not LMI Endorsed ☐

Program LMI Endorsement Criteria		
	Yes ☑	No ☐
Supply Gap:	*Comments:* There is projected to be **107 annual job openings** throughout Los Angeles and Orange counties for *dietetic technicians*, which **is less than the 201 awards conferred by educational institutions**. However, these educational programs train for an additional five other related occupations **which account for 22,400 additional annual job openings. *Because these programs train for a variety of occupations with high demand, there is an undersupply of labor for dietetic technicians*.**	
	Yes ☐	No ☑
Living Wage: (Entry-Level, 25th)	*Comments:* **Entry-level hourly wages** for *dietetic technicians* **are $16.50, which is significantly below the OC living wage of $20.63.**	
	Yes ☑	No ☐
Education:	*Comments: Dietetic technicians* typically require an associate degree and **a significant percentage of workers in the field have completed some college or an associate degree as their highest level of education**.	

Emerging Occupation(s)	
Yes ☐	No ☑
Comments: 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 one middle-skill occupation:

- *Dietetic Technicians* (29-2051)

Based on the available data, there appears to be a supply gap for *dietetic technicians* in the region. Though the number of awards for this occupation exceeds demand, supply is overstated because the related educational programs train for an additional five occupations. When considering the high demand for these occupations, there is an undersupply of labor for *dietetic technicians*. Though typical education requirements for this occupation align with a community college education, entry-level wages are 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 occupation included in this report.

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
Dietetic Technicians (29-2051)	LA: 134 OC: 36	LA: 138 OC: 64	OC: $16.50	Associate degree	41%
Total	**170**	**201**	**N/A**	**N/A**	**N/A**

Demand:

- The number of jobs related to *dietetic technicians* is projected to increase 8% through 2027, equating to 107 annual job openings.
- Hourly entry-level wages for *dietetic technicians* are $16.50 in Orange County, which is below the living wage of $20.63.
- There were 290 online job postings for *dietetic technicians* over the past 12 months. The highest number of postings were for nutrition assistants, nutrition services assistants, and child nutrition assistants.
- The typical entry-level education for *dietetic technicians* is an associate degree.
- Approximately 41% of workers in the field have completed some college or an associate degree as their highest level of educational attainment.

Supply:

- It is important to note that the educational programs that train for *dietetic technicians* also train for five other occupations for which there is significant demand. Therefore, supply is overstated when considering only *dietetic technicians*.
- There was an average of 197 awards conferred by 19 community colleges in Los Angeles and Orange Counties from 2019 to 2022.
- Non-community college institutions conferred an average of 4 awards from 2019 to 2021.
- Orange County community college students that exited nutrition, foods, and culinary programs in the 2020-21 academic year had a median annual wage of $36,026 ($17.32 per hour) after exiting the program and 36% attained the regional living wage.
- Throughout Orange County, 62% of nutrition, foods, and culinary students that exited their program in 2019-20 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 *dietetic technicians* from 2017 through 2027. Though there was a 7% decline across all occupations in Orange County from 2019 to 2020 due to the COVID-19 pandemic, employment for *dietetic technicians* only decreased 6% during the same period. Employment for *dietetic technicians* is projected to grow each year at a the same rate as all occupations through 2027.

Exhibit 2: Annual Percent Change in Jobs for Dietetic Technicians, 2017-2027

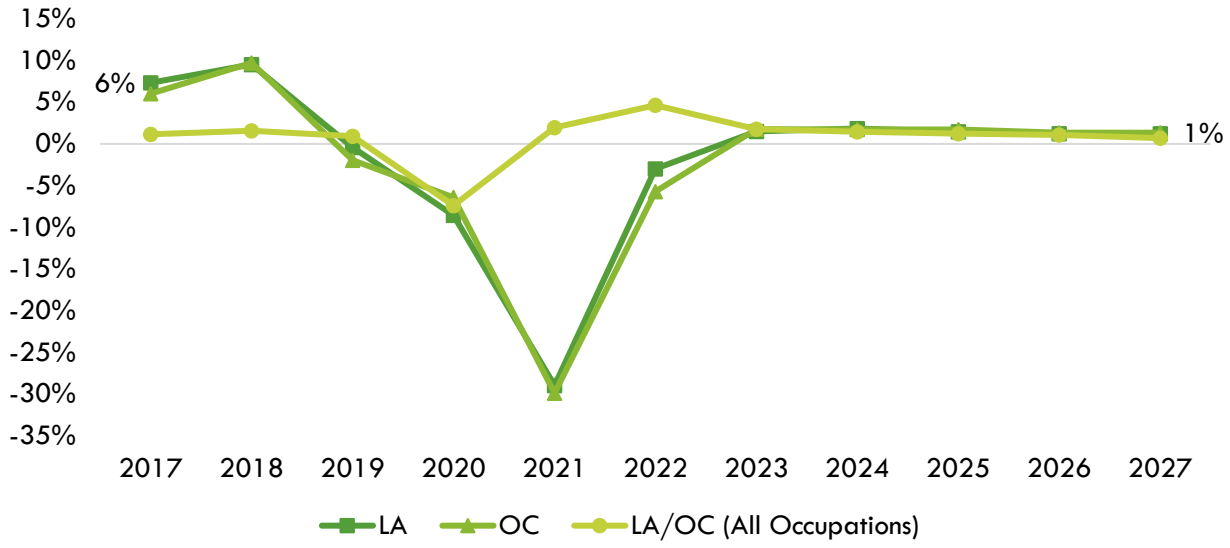


Exhibit 3 shows the five-year occupational demand projections for *dietetic technicians*. In Los Angeles/Orange County, the number of jobs related to this occupation is projected to increase by 8% through 2027. There is projected to be 170 jobs available annually.

Exhibit 3: Occupational Demand in Los Angeles and Orange Counties[1]

Geography	2022 Jobs	2027 Jobs	2022-2027 Change	2022-2027 % Change	Annual Openings
Los Angeles	1,068	1,148	80	7%	134
Orange	281	304	23	8%	36
Total	**1,349**	**1,452**	**103**	**8%**	**170**

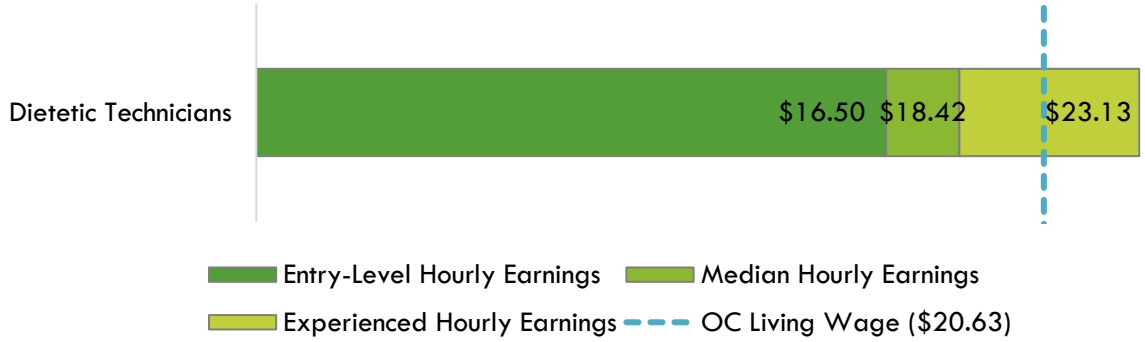
[1] Five-year change represents new job additions to the workforce. Annual openings include new jobs and replacement jobs that result from retirements and separations.

Wages:

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

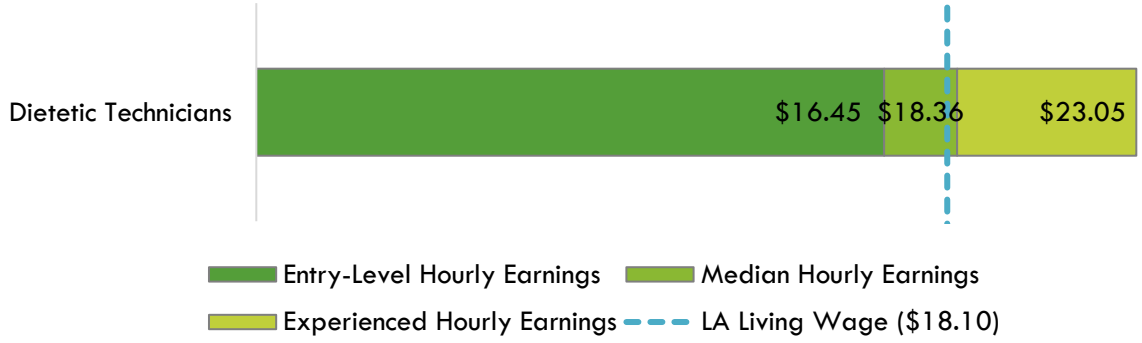
The typical entry-level hourly wage for *dietetic technicians* is $16.50, which is below the living wage for one adult ($20.63 in Orange County). The experienced hourly wage is 23.13, which is above the living wage. Orange County's average wage of $20.72 is lower relative to the average statewide wage of $21.31 for this occupation. Exhibit 4 shows the wage range for *dietetic technicians* in Orange County and how it compares to the regional living wage.

Exhibit 4: Wages by Occupation in Orange County



The typical entry-level hourly wage for *dietetic technicians* is $16.45, which is below the living wage for one adult ($18.10 in Los Angeles County). Median wages are $18.36, which is above the living wage. Los Angeles County's average wage of $20.66 is below the average statewide wage of $21.31 for this occupation. Exhibit 5 shows the wage range for *dietetic technicians* in Los Angeles County and how it compares to the regional living wage.

Exhibit 5: Wages by Occupation in Los Angeles County



Job Postings:

Important Online Job Postings Data Note: *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.*[2] *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.

There were 290 online job postings related to *dietetic technicians* listed in the past 12 months, as shown in Exhibit 6.

Exhibit 6: Number of Job Postings by Occupation (n=290)

Occupation	Job Postings	Percentage of Job Postings
Dietetic Technicians	290	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=290)

Employer	Job Postings	Percentage of Job Postings
Jba Institute	13	4%
West Covina Unified SCH Dist	11	4%
CommonSpirit Health	10	3%
Redondo Beach Unified School District	10	3%
Reasons Eating Disorder Center	9	3%
Westside Union School District	9	3%
Hoag Health System	8	3%
Newport Mesa Unified School District	8	3%
University of California	8	3%
Whittier Union High School District	8	3%

[2] 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 specialized, soft, and computer skills listed by those most frequently mentioned in job postings (denoted in parentheses) are shown in Exhibit 8.

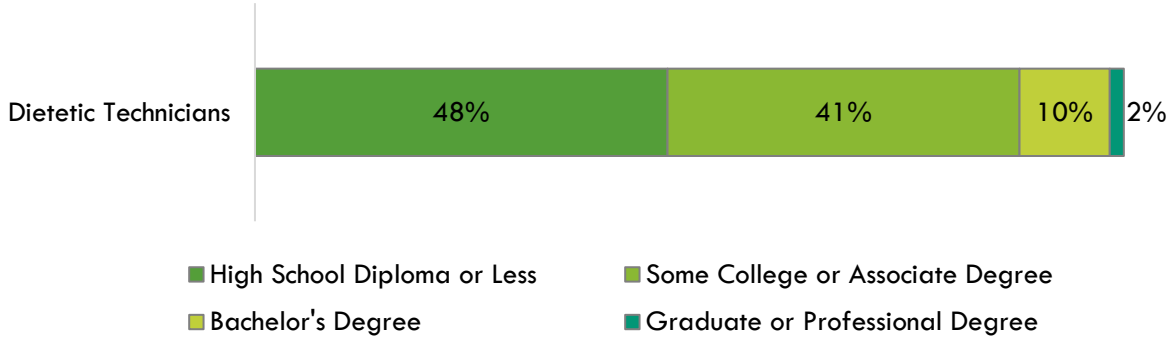
Exhibit 8: Top Skills by Number of Job Postings (n=290)

Top Specialized Skills	Top Soft Skills	Top Computer Skills
Food Services (152)	Sanitation (83)	Microsoft Office (17)
Nutrition Services (117)	Customer Service (75)	Spreadsheets (13)
Cooking (77)	Communication (67)	Microsoft Excel (11)
Food Preparation (74)	Operations (37)	Database Systems (6)
Cashiering (43)	Computer Literacy (34)	Software Systems (6)
Dietetics (42)	Sales (30)	Microsoft Word (5)
Child Nutrition (34)	English Language (29)	Operating Systems (4)
Eating Disorder Treatment (34)	Writing (28)	Microsoft Outlook (3)
Baking (31)	Record Keeping (26)	Microsoft PowerPoint (1)
Nutrition Education (30)	Clerical Works (24)	

Educational Attainment:

The Bureau of Labor Statistics (BLS) lists an associate degree as the typical entry-level education for *dietetic technicians*. Additionally, the national-level educational attainment data indicates 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 *dietetic technicians*.

Exhibit 9: National-level Educational Attainment for Occupations



Of the 97% of the cumulative job postings for *dietetic technicians* that listed a minimum education requirement in Los Angeles/Orange County, 65% (183) requested a high school diploma or an associate degree and 28% (79) requested a bachelor's degree.

Educational Supply

It is important to note that the educational programs included in the following supply figures train for *dietetic technicians*, as well as five other occupations that account for over 22,000 annual job openings. Therefore, supply is overstated when considering only *dietetic technicians*.

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), and Dietetic Technology (1306.60). The colleges with the most completions in the region are: Long Beach, Orange Coast, East LA, and Glendale. Over the past 12 months, there were no other related program recommendation requests from regional community colleges.

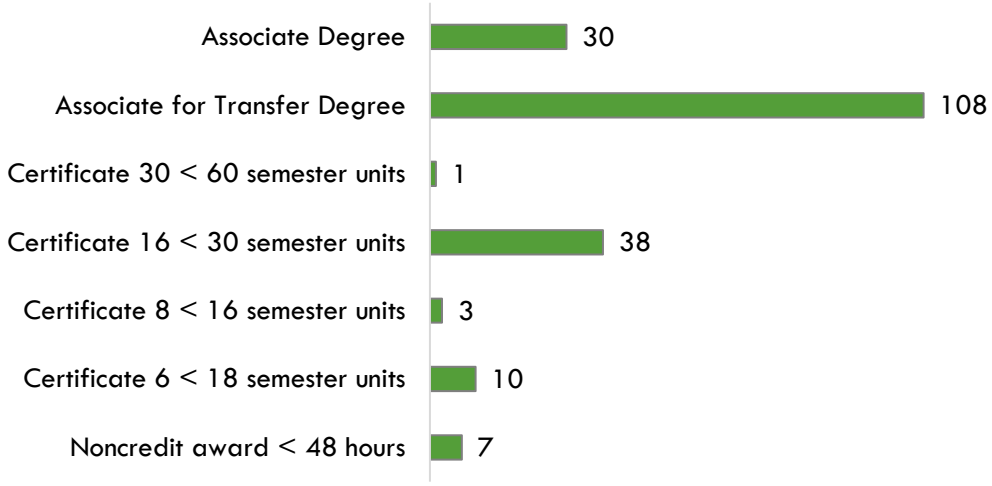
Exhibit 10: Regional Community College Awards (Certificates and Degrees), 2019-2022

TOP Code	Program	College	2019-2020 Awards	2020-2021 Awards	2021-2022 Awards	3-Year Award Average
1306.00	Nutrition, Foods, and Culinary Arts	Glendale	6	0	6	4
		LA City	1	0	4	2
		Long Beach	8	19	16	14
		Mt San Antonio	15	19	25	20
		Pasadena	2	10	3	5
		Rio Hondo	1	3	1	2
		Citrus	0	4	6	3
		West LA	2	4	5	4
		Santa Monica	5	9	11	8
		Easy LA	23	18	21	21
		LA Harbor	0	0	3	1
		LA Mission	4	7	4	5
		LA Southwest	0	2	2	1
		LA Trade	0	0	3	1
		LA Subtotal	**67**	**95**	**110**	**91**
		Santa Ana	3	1	2	2
		Orange Coast	20	17	11	16
		Saddleback	19	24	12	18
		Cypress	2	1	3	2
		Fullerton	8	17	13	13
		OC Subtotal	**52**	**60**	**41**	**51**
Supply Subtotal/Average			**119**	**155**	**151**	**142**
1306.20	Dietetic Services and Management	Glendale	16	12	23	17
		LA City	7	8	6	7
		Long Beach	5	8	23	12

TOP Code	Program	College	2019-2020 Awards	2020-2021 Awards	2021-2022 Awards	3-Year Award Average
		LA Subtotal	**28**	**28**	**52**	**36**
		Orange Coast	3	6	3	4
		OC Subtotal	**3**	**6**	**3**	**4**
		Supply Subtotal/Average	**31**	**34**	**55**	**40**
1306.60	Dietetic Technology	Long Beach	12	17	4	11
		LA Subtotal	**12**	**17**	**4**	**11**
		Orange Coast	2	8	4	5
		OC Subtotal	**2**	**8**	**4**	**5**
		Supply Subtotal/Average	**14**	**25**	**8**	**16**
		Supply Total/Average	**164**	**214**	**214**	**197**

Exhibit 11 shows the annual average community college awards by type from 2019-20 to 2021-22. The plurality of the awards are for associate for tranfer degrees, followed by certificates between 16 and less than 30 semester units and associate degrees.

Exhibit 11: Annual Average Community College Awards by Type, 2019-2022



Community College Student Outcomes:

Exhibit 12 shows the Strong Workforce Program (SWP) metrics for nutrition, foods, and culinary arts programs in North Orange County Community College District (NOCCCD), the Orange County Region, and California. Of the 6,508 nutrition, foods, and culinary arts students in the 2020-21 academic year, 46% (3,012) attended an NOCCCD college.

Additionally, NOCCCD students that exited nutrition, foods, and culinary arts programs in the 2020-21 academic year had lower median annual earnings ($31,696 or $15.24 per hour) compared to all culinary, foods, and students in Orange County ($36,026 or $17.32 per hour). A lower percentage of NOCCCD nutrition, foods, and culinary arts students attained the living wage (29%) when compared to all nutrition, foods, and culinary arts students in Orange County (36%).

Exhibit 12: Nutrition, Foods, and Culinary Arts (1306.00) Strong Workforce Program Metrics, 2020-21[3]

SWP Metric	NOCCCD	OC Region	California
SWP Students	3,012	6,508	55,015
SWP Students Who Earned 9 or More Career Education Units in the District in a Single Year	11%	13%	15%
SWP Students Who Completed a Noncredit CTE or Workforce Preparation Course	95%	94%	88%
SWP Students Who Earned a Degree or Certificate or Attained Apprenticeship Journey Status	15	56	351
SWP Students Who Transferred to a Four-Year Postsecondary Institution (2019-20)	Insufficient Data	Insufficient Data	Insufficient Data
SWP Students with a Job Closely Related to Their Field of Study (2019-20)	83%	62%	59%
Median Annual Earnings for SWP Exiting Students	$31,696 ($15.24)	$36,026 ($17.32)	$34,280 ($16.48)
Median Change in Earnings for SWP Exiting Students	39%	33%	30%
SWP Exiting Students Who Attained the Living Wage	29%	36%	48%

Non-Community College Supply:

To comprehensively analyze the regional supply, it is crucial to include data from other institutions offering nutrition, foods, and culinary arts programs. Exhibit 13 displays the annual and two-year average awards granted by these institutions under the related Classification of Instructional Programs (CIP) Code: Foods, Nutrition and Wellness Studies, General (19.0501). No metrics were available for the following related CIP Codes: Dietetic Technician (51.3101) and Dietitian Assistant (51.3104). The available data covers 2019 to 2021. During this period, non-community college institutions in the region conferred an average of 4 awards annually in related programs.

Exhibit 13: Regional Non-Community College Awards, 2019-2021

CIP Code	Program	College	2019-2020 Awards	2020-2021 Awards	2-Year Award Average
19.0501	Foods, Nutrition, and Wellness Studies, General	Charles R Drew University of Medicine and Science	0	0	0
		University of Massachusetts Global	4	4	4
Supply Total/Average			**4**	**4**	**4**

[3] All SWP metrics are for 2020-21 unless otherwise noted.

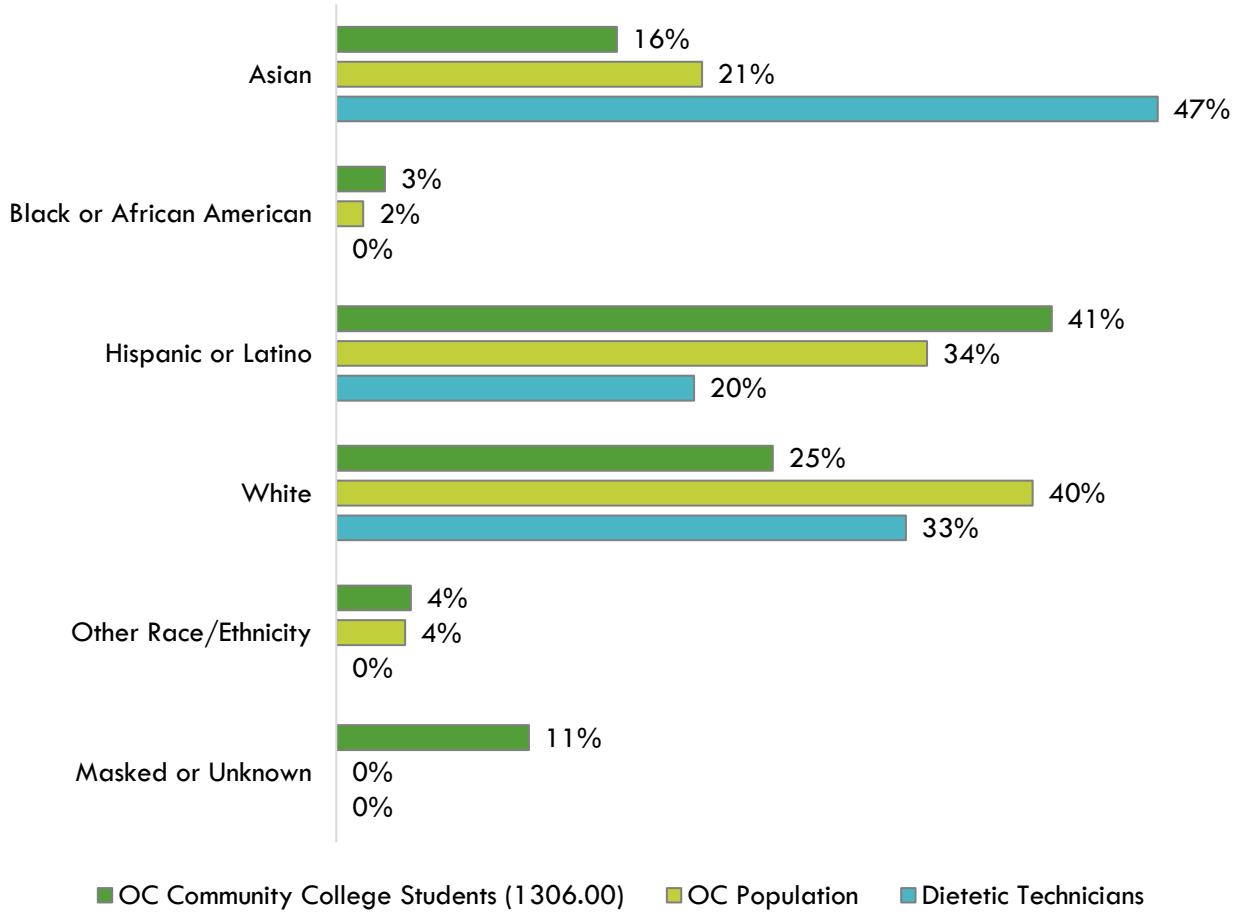
Regional Demographics

This section examines demographic data for Orange County community college students in nutrition, foods, and culinary arts programs compared to the Orange County population, along with occupational data, to identify potential diversity and equity issues addressable by community college programs.

Ethnicity:

Exhibit 14 compares the ethnicity of Orange County community college students enrolled in nutrition, foods, and culinary arts programs, the overall Orange County population, and occupation-specific data for *dietetic technicians*. Only three ethnic groups (Asian, Hispanic or Latino, or white) are represented in this occupation, of which the plurality (47%) of workers are Asian, more than double Orange County's Asian population and nearly three times that of Orange County Asian community college students in related programs. Of the three groups, Hispanic or Latino workers (20%) are least represented despite being over a third of the county's population and the majority of Orange County community college nutrition, foods, and culinary arts students.

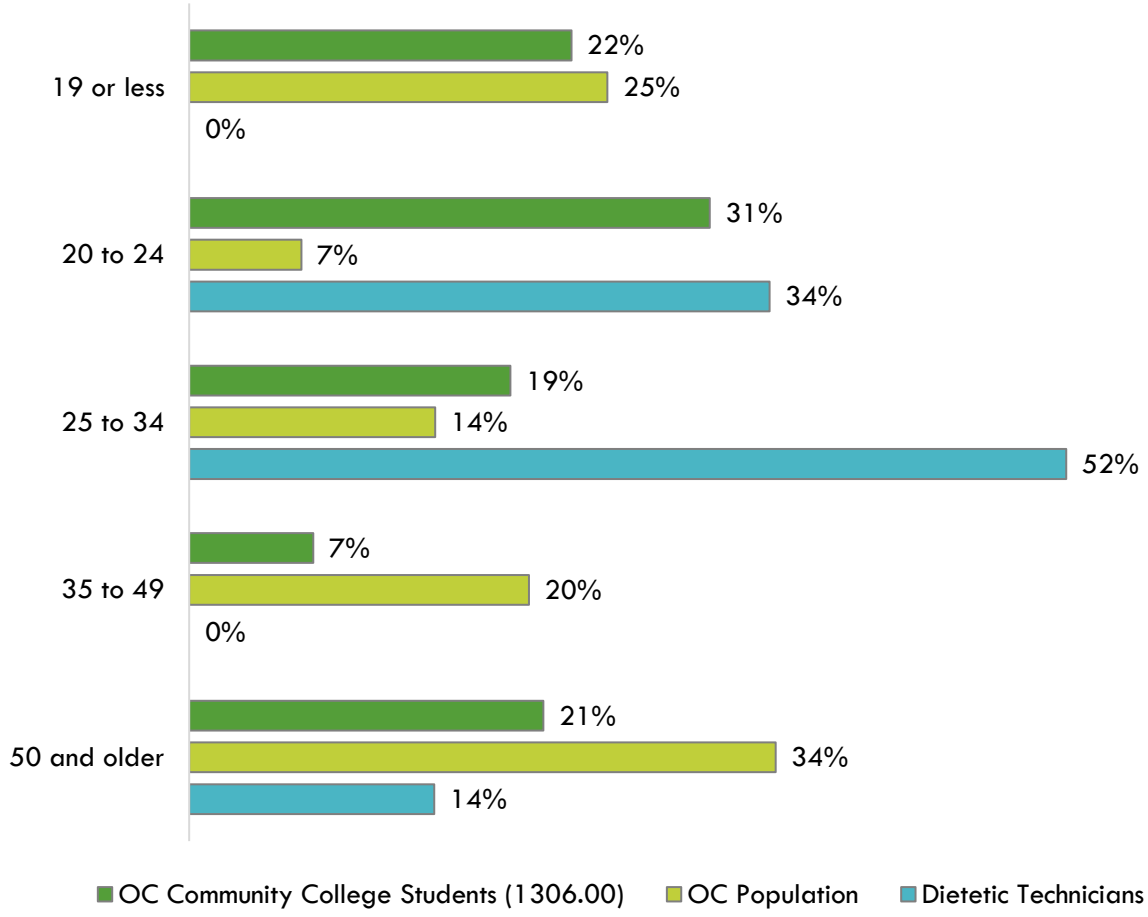
Exhibit 14: Program and County Demographics by Ethnicity



Age:

Exhibit 15 compares the age of Orange County community college students enrolled in nutrition, foods, and culinary arts programs, the overall Orange County population, and occupation-specific data for *dietetic technicians*. The plurality (86%) of workers in this occupation are 20 to 34, which is significantly higher than both community college nutrition, foods, and culinary arts students and the population. Notably, no workers in this occupation are 35 to 49, yet this age group composes a fifth of the county's population and is represented among Orange County community college nutrition, foods, and culinary arts students (7%). The lack of representation of workers 35 to 49 years of age may be reflective of the small American Community Survey sample size (n=132) used for examining this occupation.

Exhibit 15: Program and County Demographics by Age

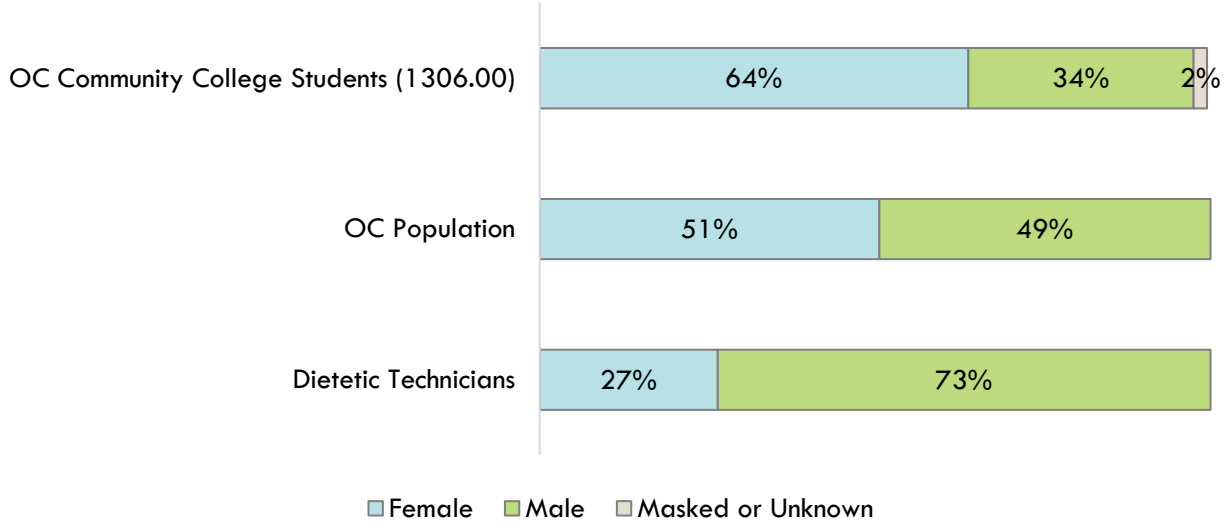


Sex:

Exhibit 16 compares the sex of Orange County community college students enrolled in nutrition, foods, and culinary arts programs, the overall Orange County population, and occupation-specific data for *dietetic technicians*.

While the population is split nearly evenly between women and men, there is a larger percentage of women (64%) than men (34%) in Orange County community college nutrition, foods, and culinary arts programs and, conversely, more men (73%) than women (27%) in the *dietetic technicians* occupation.

Exhibit 16: Program and County Demographics by Sex



Appendix A: Methodology

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	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/
Living Wage	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://insightcced.org/family-needs-calculator/ The living wage for one adult in Orange County is $20.63 per hour ($42,910.40 annually). This figure is used by the CCCCO to calculate the percentage of students that attained the regional living wage.
Typical Education and Training Requirements, and Educational Attainment	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
Emerging Occupation Descriptions, Additional Education Requirements, and Employer Preferences	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/
Educational Supply	The CCCCO Data Mart provides information about students, courses, student services, outcomes and faculty and staff. For more information, see: https://datamart.cccco.edu 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
Student Metrics and Demographics	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

Data Type	Source
Population and Occupation Demographics	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 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

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FOR LABOR MARKET RESEARCH

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