

⚠ Endorsed: Caution Advised			
Program LMI Endorsement Criteria			
	Met <input checked="" type="checkbox"/>	Partially Met <input type="checkbox"/>	Not Met <input type="checkbox"/>
Supply Gap:	There are projected to be <b>3,677 annual job openings</b> throughout Los Angeles and Orange counties for these baking and pastry occupations, which <b>is more than the 910 awards conferred by educational institutions</b> .		
Self-Sufficiency Standard Living Wage <sup>1</sup> :	Met <input type="checkbox"/>	Partially Met <input type="checkbox"/>	Not Met <input checked="" type="checkbox"/>
	<b>All annual job openings</b> for these baking and pastry occupations <b>have entry-level hourly wages below the OC living wage of \$27.13</b> .		
Education:	Met <input type="checkbox"/>	Partially Met <input checked="" type="checkbox"/>	Not Met <input type="checkbox"/>
	Although the majority (59%) of annual job openings for these baking and pastry occupations typically require no formal educational credential, <b>between 31% and 37% of workers in the field have completed some college or an associate degree as their highest level of education</b> .		

## Summary

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 and Orange counties regional labor market related to two occupations:

- Below Middle-Skill – denoted with an asterisk (\*) throughout this report
  - *Bakers (51-3011)\**
- Middle-Skill
  - *Chefs and Head Cooks (35-1011)*

Based on the available data, there appears to be a supply gap for these baking and pastry occupations. However, typical education requirements for these occupations do not align with a community college education, and all annual job openings have entry-level wages below the Self-Sufficiency Standard 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 these baking and pastry occupations included in this report.

<sup>1</sup> The living wage endorsement criteria in this report uses the University of Washington's Center for Women's Welfare Self-Sufficiency Standard, which the COE refers to as a living wage; Orange County's living wage of \$27.13, was last updated in March 2024.

## 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
Bakers (51-3011)*	LA: 1,642 OC: 521	<i>Accounted for Below</i>	OC: \$16.76	No formal educational credential	31%
<b>Below Middle-Skill Total</b>	<b>2,164</b>	<b><i>Accounted for Below</i></b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>
Chefs and Head Cooks (35-1011)	LA: 1,113 OC: 400	LA: 618 OC: 293	OC: \$23.79	High school diploma or equivalent	37%
<b>Middle-Skill Total</b>	<b>1,513</b>	<b>910</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>
<b>Total</b>	<b>3,677</b>	<b>910</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>

### Demand

- In Los Angeles and Orange counties, the number of jobs related to these baking and pastry occupations is projected to increase 5% through 2029, equating to 3,677 annual job openings.
- Hourly entry-level wages for these baking and pastry occupations range from \$16.76 to \$23.79 in Orange County; all annual openings have entry-level wages below the Self-Sufficiency Standard living wage.
- There were 4,105 online job postings for these baking and pastry occupations over the past 12 months. The highest number of postings were for sushi chefs, sous chefs, and executive chefs.
- The typical entry-level education for these baking and pastry occupations ranges from no formal educational credential to a high school diploma or equivalent.
- Between 31% and 37% of workers in the field have completed some college or an associate degree as their highest level of educational attainment.

### Supply

- Between 2021 to 2024, an average of 842 awards were conferred by 22 community colleges in Los Angeles and Orange counties.
- From 2020 to 2023, non-community college institutions conferred an average of 68 awards.
- In the 2022-23 academic year, Orange County community college students that exited culinary arts programs had a median annual wage of \$38,934 (\$18.72 per hour) post-exit, and 25% attained the regional living wage.
- In 2021-22, 79% of Orange County culinary arts students that exited their programs reported working a job closely related to their field of study.

# Demand

## Occupational Projections

Exhibit 2 shows the annual percentage change in jobs for these baking and pastry occupations from 2019 through 2029. Between 2019 and 2020, employment levels across Los Angeles and Orange counties declined sharply due to the broader economic impacts of the COVID-19 pandemic. From 2021 to 2024, Orange County saw growth—20% in 2021 and 2022, 12% in 2023, and 14% in 2024. Beginning in 2025, job levels are projected to grow at a higher rate than all occupations through 2029.

Exhibit 2: Annual Percentage Change in Jobs for Baking and Pastry Occupations, 2019-2029

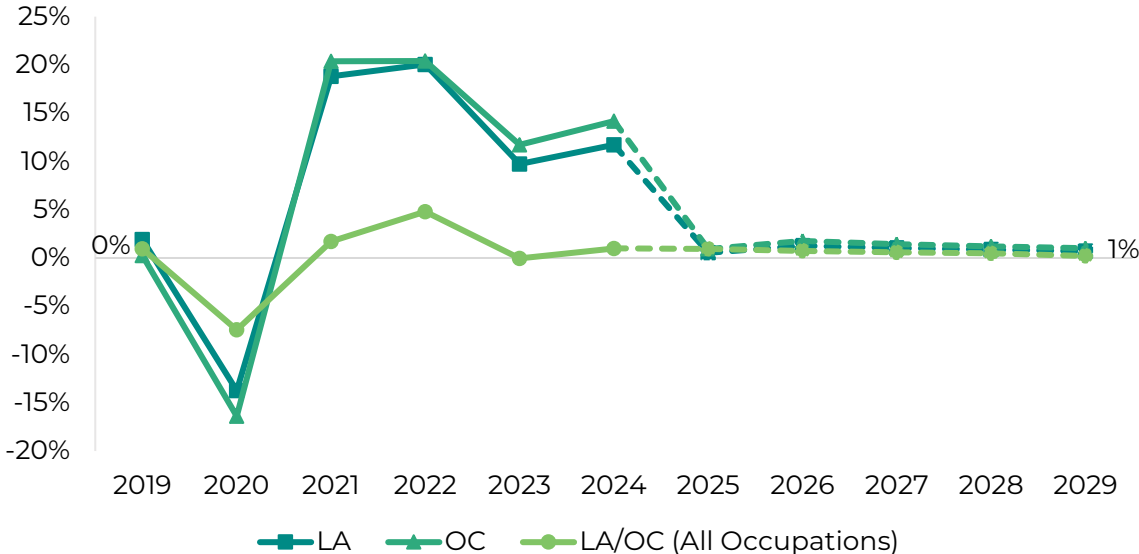


Exhibit 3 shows the five-year occupational demand projections for *bakers*<sup>\*</sup>. In Los Angeles and Orange counties, the number of jobs related to these occupations is projected to increase 4% through 2029. There is projected to be 2,164 available annually.

Exhibit 3: Below Middle-Skill Occupational Demand in Los Angeles and Orange Counties<sup>2</sup>

Geography	2024 Jobs	2029 Jobs	2024-2029 Change	2024-2029 % Change	Annual Openings
Los Angeles	10,287	10,665	378	4%	1,642
Orange	3,092	3,311	219	7%	521
<b>Total</b>	<b>13,379</b>	<b>13,976</b>	<b>597</b>	<b>4%</b>	<b>2,164</b>

Exhibit 4 shows the five-year occupational demand projections for *chefs and head cooks*. In Los Angeles and Orange counties, the number of jobs related to this occupation is projected to increase 6% through 2029. There is projected to be 1,513 available annually.

<sup>2</sup> Five-year change represents new job additions to the workforce. Annual openings include new jobs and replacement jobs that result from retirements and separations.

### Exhibit 4: Middle-Skill Occupational Demand in Los Angeles and Orange Counties

Geography	2024 Jobs	2029 Jobs	2024-2029 Change	2024-2029 % Change	Annual Openings
Los Angeles	8,894	9,373	479	5%	1,113
Orange	3,164	3,351	187	6%	400
<b>Total</b>	<b>12,058</b>	<b>12,724</b>	<b>666</b>	<b>6%</b>	<b>1,513</b>

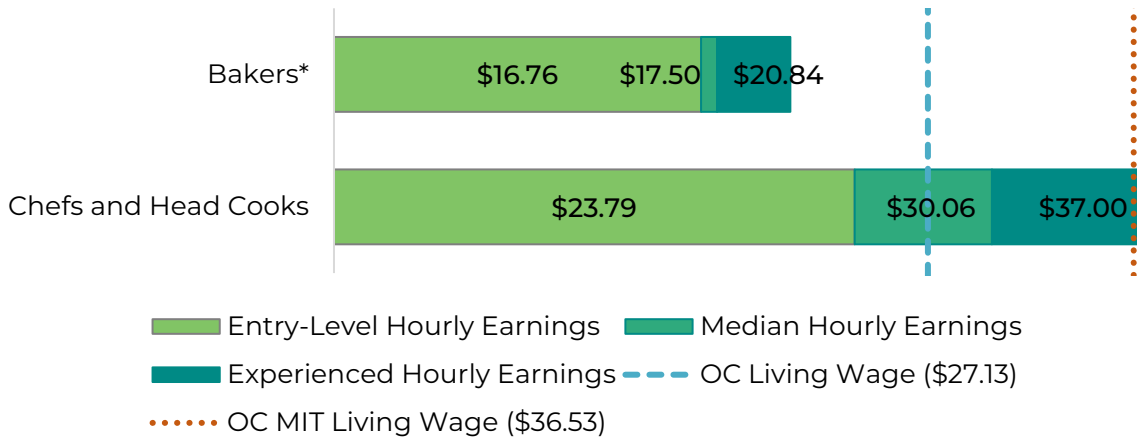
### Wages

The labor market endorsement in this report considers the entry-level hourly wages for these baking and pastry occupations 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.

In addition to the Self Sufficiency Standard living wage, data for the MIT Living Wage (updated on February 15, 2026) is provided as a reference. Currently, the MIT Living Wage in Orange County is \$36.53. Both figures account for geographic-specific costs of necessities such as housing, food, health care, and transportation to assess the cost of living, and are notated in the exhibits below.

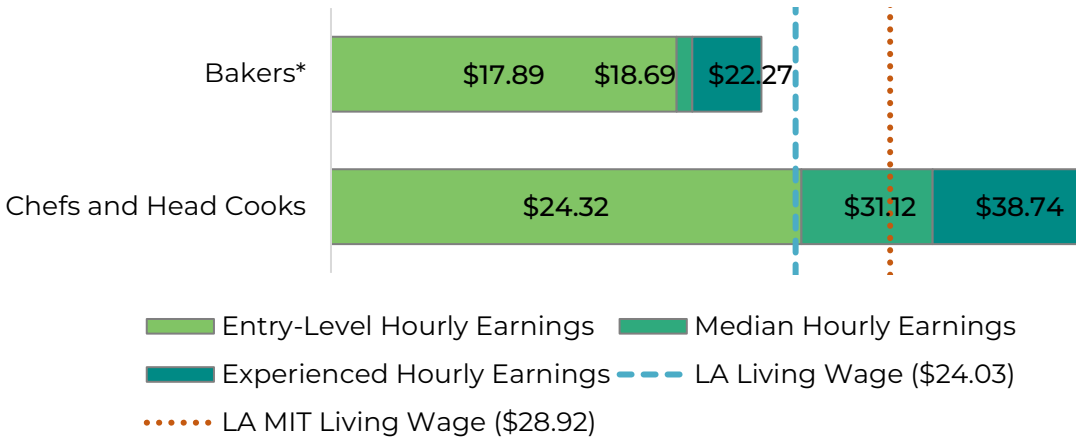
In Orange County, all annual openings for these baking and pastry occupations have entry-level wages below the Self-Sufficiency living wage of \$27.13 for a single adult, ranging from \$16.76 and \$23.79. Exhibit 5 shows the wage range for each of these baking and pastry occupations in Orange County and how they compare to the regional living wage, sorted from lowest to highest entry-level wage.

### Exhibit 5: Wages by Occupation in Orange County



In Los Angeles County, 60% of annual openings for these baking and pastry occupations have entry-level wages below the Self-Sufficiency living wage of \$24.03 for a single adult, ranging from \$17.89 and \$24.32. Exhibit 6 shows the wage range for each of these baking and pastry occupations in Los Angeles County and how they compare to the regional living wage, sorted from lowest to highest entry-level wage.

### Exhibit 6: Wages by Occupation in Los Angeles County



### Resilient Jobs and U.S. News & World Report Best Jobs

Exhibit 7 shows if each occupation is considered an Orange County Great Recession-Resilient, COVID-19 Pandemic Recession-Resilient Job, or a 2025 U.S. News & World Report (USN&WR) Best Job<sup>3</sup>. Only one occupation, *bakers\**, was considered for 2025 USN&WR Best Job. *Chefs and head cooks* did not meet any of these designations.

Exhibit 7: Resilient Jobs and USN&WR Best Jobs Designations

Occupation	Great Recession-Resilient Job	COVID-19 Pandemic Recession-Resilient Job	2025 USN&WR Best Job
Bakers*	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Chefs and Head Cooks	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

### Job Postings

**Important Job Postings Data Note:** *There are limitations when analyzing job postings. A single job posting may not represent a single job opening for a variety of reasons.*

There were 6,687 online job postings related to these baking and pastry occupations listed in the past 12 months. Exhibit 8 shows the number of job postings by occupation. Over 61% of job postings were for *chefs and head cooks*.

Exhibit 8: Number of Job Postings by Occupation (n=6,687)

Occupation	Job Postings	Percentage of Job Postings
Chefs and Head Cooks	4,105	61%
Bakers*	2,582	39%
<b>Total Postings</b>	<b>16,527</b>	<b>100%</b>

<sup>3</sup> "100 Best Jobs," U.S. News & World Report, accessed January 28, 2025, <https://money.usnews.com/careers/best-jobs/rankings/the-100-best-jobs>.

## Job Postings for Below Middle-Skill Occupation

The top job titles for *bakers\** in the region, by number of job postings, are shown in Exhibit 9.

Exhibit 9: Top Job Titles by Number of Job Postings for Below Middle-Skill Occupation (n=2,582)

Job Titles	Job Postings	Percentage
Bakers	602	23%
Cake Decorators	343	13%
Bakery Clerks	219	8%
Team Members	118	5%
Bakery Assistants	68	3%
Bakery Team Members	65	3%
Donut Makers	60	2%
Pastry Bakers	60	2%
Bakers/Pastry Chefs	53	2%
Cake Decorators/Bakery Associates	47	2%

The top employers for *bakers\** in the region, by number of job postings, are shown in Exhibit 10.

Exhibit 10: Top Employers by Number of Job Postings for Below Middle-Skill Occupation (n=2,582)

Employer	Job Postings	Percentage of Job Postings
Whole Foods	146	6%
El Super	102	4%
Albertsons	77	3%
Sprouts Farmers Market	76	3%
Coffee And Bagel Brands	50	2%
Bristol Farms	48	2%
Walmart	42	2%
Krispy Kreme	38	1%
Sprinkles Cupcakes	37	1%
Kroger	37	1%

The top specialized, soft, and computer skills for *bakers\** listed by those most frequently mentioned in job postings (denoted in parentheses) are shown in Exhibit 11.

Exhibit 11: Top Skills by Number of Job Postings for Below Middle-Skill Occupation (n=2,582)

Top Specialized Skills	Top Soft Skills	Top Computer Skills
Baking (1,190)	Customer Service (1,055)	Microsoft Outlook (89)
Food Safety And Sanitation (828)	Communication (874)	Microsoft Office (23)
Cake Decorating (694)	Cleanliness (654)	Google Workspace (9)
Sanitation (629)	Detail Oriented (527)	Business Software (7)
Merchandising (491)	Sales (469)	Microsoft Excel (7)
Restaurant Operation (456)	Multitasking (432)	Qt (Software) (6)
Lifting Ability (445)	Time Management (392)	Gitkraken (5)

Top Specialized Skills	Top Soft Skills	Top Computer Skills
Breads (336)	Management (387)	Software Testing Automation Framework (5)
Packaging And Labeling (326)	Operations (375)	Productivity Software (4)
Safety Standards (303)	Positivity (324)	Firefox (3)

### Job Postings for Middle-Skill Occupation

The top job titles for *chefs and head cooks* in the region, by number of job postings, are shown in Exhibit 12.

Exhibit 12: Top Job Titles by Number of Job Postings for Middle-Skill Occupation (n=4,105)

Job Titles	Job Postings	Percentage
Sushi Chefs	681	17%
Sous Chefs	538	13%
Executive Chefs	325	8%
Chefs	277	7%
Chefs De Cuisine	218	5%
Pastry Chefs	134	3%
Chefs De Partie	113	3%
Pastry Cooks	94	2%
Executive Sous Chefs	90	2%
Private Chefs	88	2%

The top employers for *chefs and head cooks* in the region, by number of job postings, are shown in Exhibit 13.

Exhibit 13: Top Employers by Number of Job Postings for Middle-Skill Occupation (n=4,105)

Employer	Job Postings	Percentage of Job Postings
Compass Group	221	5%
Marriott International	101	2%
Restworld	53	1%
Sodexo	50	1%
Hilton	40	1%
Oakmont Senior Living	37	1%
Disney	36	1%
Landry's	31	1%
Benihana	29	1%
Ivy Park	29	1%

The top specialized, soft, and computer skills for *chefs and head cooks* listed by those most frequently mentioned in job postings (denoted in parentheses) are shown in Exhibit 14.

Exhibit 14: Top Skills by Number of Job Postings for Middle-Skill Occupation (n=4,105)

Top Specialized Skills	Top Soft Skills	Top Computer Skills
Food Safety And Sanitation (1,602)	Communication (1,629)	Microsoft Excel (245)
Sanitation (1,501)	Operations (1,509)	Microsoft Office (205)

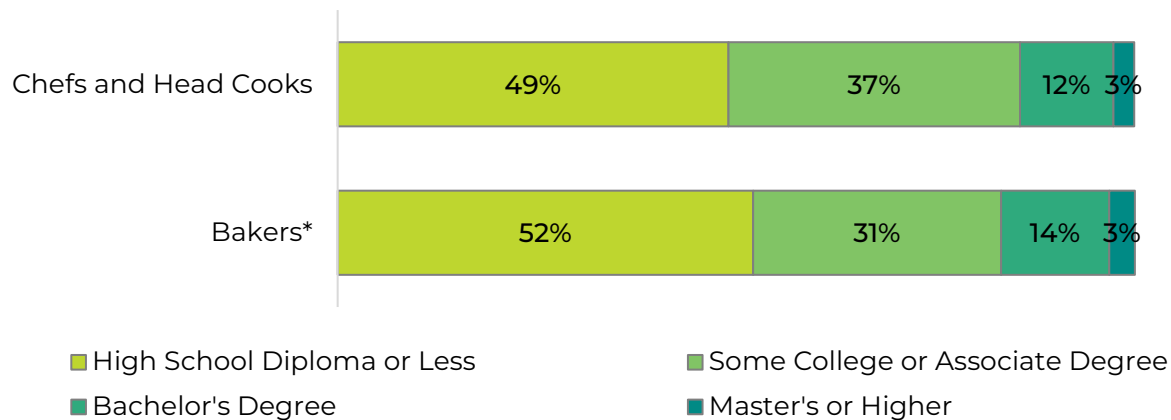
Restaurant Operation (1,471)	Leadership (1,248)	Microsoft Outlook (201)
Cooking (1,434)	Management (1,199)	Microsoft PowerPoint (178)
Food Preparation (1,034)	Cleanliness (1,045)	Microsoft Word (139)
Menu Planning (901)	Detail Oriented (956)	Inventory Management System (78)
Food Services (707)	Customer Service (950)	Operating Systems (40)
Inventory Management (672)	Innovation (536)	Spreadsheets (38)
Culinary Arts (616)	Creativity (502)	Test Kitchen (17)
Food Quality Assurance And Control (549)	Scheduling (469)	R (Programming Language) (13)

## Educational Attainment

The Bureau of Labor Statistics (BLS) lists high school diploma or equivalent for *chefs and head cooks*, and no formal educational credential for *bakers\**.

The national-level educational attainment data indicates between 31% and 37% of workers in the field have completed some college or an associate degree as their highest level of education. Exhibit 15 shows the educational attainment for each occupation, sorted by highest community college educational attainment to lowest.

Exhibit 15: National-level Educational Attainment for Occupations



## Requested Minimum Education Requirement

Of the cumulative job postings for these baking and pastry occupations in Los Angeles and Orange counties that listed a minimum education requirement:

- 19% (782) of Middle-Skill Job Postings
  - 74% (578) requested a high school diploma or associate degree
  - 25% (199) requested a bachelor's degree
- 18% (475) of Below Middle-Skill Job Postings
  - 98% (465) requested a high school diploma or associate degree
  - 2% (10) requested a bachelor's degree

## Educational Supply

The following supply tables display the total supply for these baking and pastry occupations that align with these TOP and CIP codes and program needs.

### Community College Supply

Exhibit 16 shows the three-year average number of awards conferred by community colleges in the related TOP codes:

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

The colleges with the most completions in the region are LA Trade (138), followed by LA Mission (124), and Orange Coast (93). Over the past 12 months, there was one other related program recommendation request from regional community colleges.

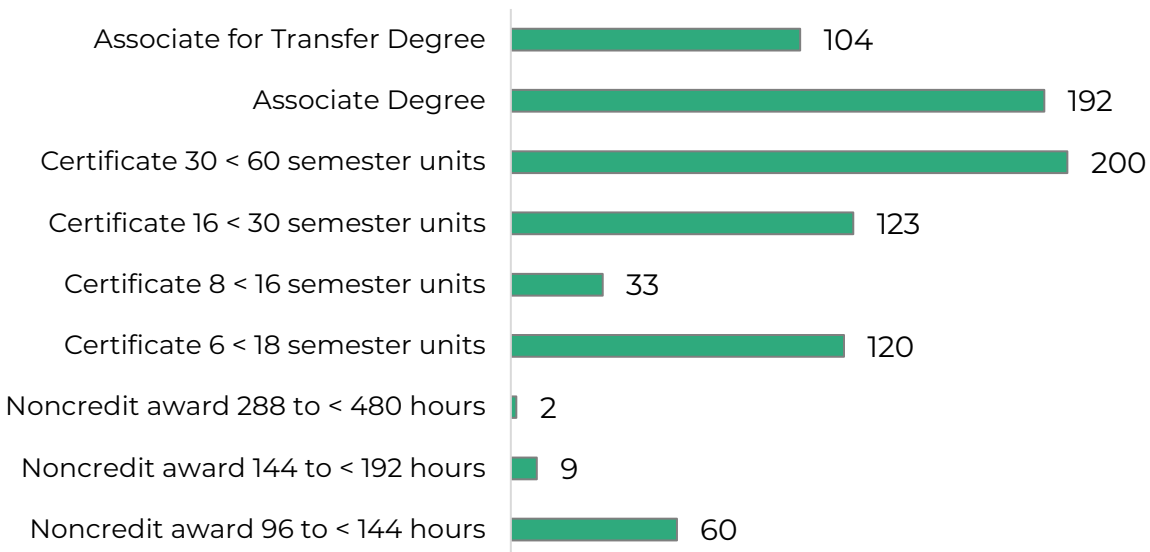
Exhibit 16: Regional Community College Awards (Certificates and Degrees), 2021-2024

TOP Code	Program	College	2021-2022 Awards	2022-2023 Awards	2023-2024 Awards	3-Year Award Average	
1306.00	Nutrition, Foods, and Culinary Arts	Citrus	6	2	3	4	
		East LA	21	16	15	17	
		Glendale	6	8	5	6	
		LA City	4	1	6	4	
		LA Harbor	3	1	2	2	
		LA Mission	4	7	7	6	
		LA Trade	3	0	0	1	
		Long Beach	16	20	22	19	
		Mt San Antonio	25	29	20	25	
		Pasadena	3	1	6	3	
		Rio Hondo	1	1	3	2	
		Santa Monica	11	8	9	9	
		West LA	5	2	2	3	
		LA Southwest	2	4	1	2	
		<b>LA Subtotal</b>		<b>110</b>	<b>100</b>	<b>101</b>	<b>104</b>
		Coastline	0	0	1	0	
		Cypress	3	0	2	2	
		Fullerton	13	12	8	11	
		Orange Coast	11	9	10	10	
		Saddleback	12	12	10	11	
		Santa Ana	2	1	4	2	
		Santiago Canyon	0	4	7	4	
		<b>OC Subtotal</b>		<b>41</b>	<b>38</b>	<b>42</b>	<b>40</b>
<b>Supply Subtotal/Average</b>			<b>151</b>	<b>138</b>	<b>143</b>	<b>144</b>	
1306.30	Culinary Arts	Cerritos	54	55	51	53	

TOP Code	Program	College	2021-2022 Awards	2022-2023 Awards	2023-2024 Awards	3-Year Award Average
		LA Harbor	83	49	72	68
		LA Mission	108	88	157	118
		LA Trade	132	136	142	137
		Long Beach	28	49	51	43
		Mt San Antonio	20	22	26	23
		Pasadena	1	5	9	5
		<b>LA Subtotal</b>	<b>426</b>	<b>404</b>	<b>508</b>	<b>446</b>
		Cypress	89	70	39	66
		Orange Coast	88	78	83	83
		Saddleback	18	33	31	27
		Santa Ana	5	21	23	16
		Santiago Canyon	128	35	16	60
		<b>OC Subtotal</b>	<b>328</b>	<b>237</b>	<b>192</b>	<b>252</b>
<b>Supply Subtotal/Average</b>			<b>754</b>	<b>641</b>	<b>700</b>	<b>698</b>
<b>Supply Total/Average</b>			<b>905</b>	<b>779</b>	<b>843</b>	<b>842</b>

Exhibit 17 shows the annual average community college awards by type from 2021-22 to 2023-24. The plurality of the awards are for certificates with 30 to 60 semester units, followed by associate degrees and certificates with 16 to 30 semester units.

### Exhibit 17: Annual Average Community College Awards by Type, 2021-2024



### Community College Student Outcomes

Exhibit 18 shows the Strong Workforce Program (SWP) metrics for culinary arts programs in Rancho Santiago Community College District (RSCCD), the Orange County Region, and

California. Of the 1,657 Orange County culinary arts students in the 2023-24 academic year, 52% (857) attended an RSCCD college.

RSCCD students that exited culinary arts programs in the 2022-23 academic year had higher median annual earnings (\$44,772 or \$21.53 per hour) compared to all culinary arts students in Orange County (\$38,934 or \$18.72 per hour). A higher percentage of RSCCD culinary arts students attained the living wage (32%) when compared to all culinary arts students in Orange County (25%).

#### Exhibit 18: Culinary Arts (1306.30) Strong Workforce Program Metrics, 2021-24<sup>4</sup>

SWP Metric	RSCCD	OC Region	California
SWP Students	857	1,657	11,618
SWP Students Who Earned 9 or More Career Education Units in the District in a Single Year	Insufficient Data	23%	33%
SWP Students Who Completed a Noncredit CTE or Workforce Preparation Course	69%	69%	72%
SWP Students Who Earned a Degree or Certificate or Attained Apprenticeship Journey Status	29	111	937
SWP Students Who Transferred to a Four-Year Postsecondary Institution (2022-23)	Insufficient Data	24	182
SWP Students with a Job Closely Related to Their Field of Study (2021-22)	Insufficient Data	79%	62%
Median Annual Earnings for SWP Exiting Students (2022-23)	\$44,772 (\$21.53)	\$38,934 (\$18.72)	\$33,940 (\$16.32)
Median Change in Earnings for SWP Exiting Students (2022-23)	11%	19%	25%
SWP Exiting Students Who Attained the Living Wage (2022-23)	32%	25%	27%

### Non-Community College Supply

To comprehensively analyze the regional supply, it is crucial to include data from other institutions offering culinary arts programs. Exhibit 19 displays the annual and three-year average awards granted by these institutions under the related Classification of Instructional Programs (CIP) codes: Baking and Pastry Arts/Baker/Pastry Chef (12.0501). No awards were conferred under the following CIPs: Cooking and Related Culinary Arts, General (12.0500) and Culinary Arts/Chef Training (12.0503).

The available data covers 2020 to 2023. During this period, non-community college institutions in the region conferred an average of 68 awards annually in related programs.

#### Exhibit 19: Regional Non-Community College Awards, 2020-2023

CIP Code	Program	College	2020-2021 Awards	2021-2022 Awards	2022-2023 Awards	3-Year Award Average
12.0501	Baking and Pastry Arts/Baker/Pastry Chef	Institute of Culinary Education	52	72	77	67
		University of Antelope Valley	3	0	0	1
<b>Supply Total/Average</b>			<b>55</b>	<b>72</b>	<b>77</b>	<b>68</b>

<sup>4</sup> All SWP metrics are for 2023-24 unless otherwise noted.

# Regional Demographics

The following section presents occupational, community college program, and population demographic data for Orange County. This comparison can help identify possible equity gaps between the local workforce and the student pipeline who are preparing for these occupations. These insights can inform program development, outreach, and support strategies to better align community college programs with current labor market needs.

## Ethnicity

Exhibit 20 compares the ethnicity of Orange County community college students enrolled in culinary arts programs, the overall Orange County population, and occupation-specific data for the two baking and pastry occupations included in this report.

Hispanic or Latino students make up a larger share of enrollment (55%) than of the workforce (48%), while Asian individuals are significantly more represented in the field (29%) than among students (13%). White representation is relatively similar across both groups, and Black or African American individuals remain minimally represented. Overall, this suggests a disconnect between student representation and workforce.

Exhibit 20: Program and County Demographics by Ethnicity

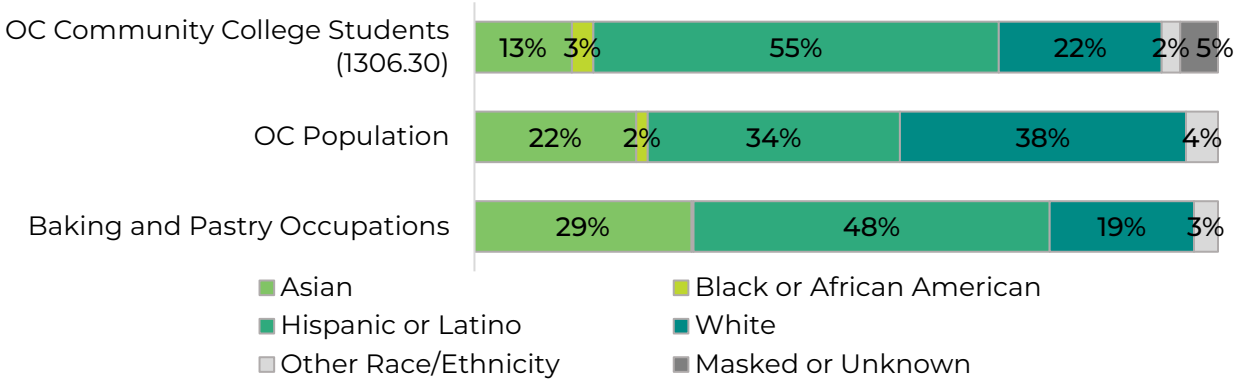
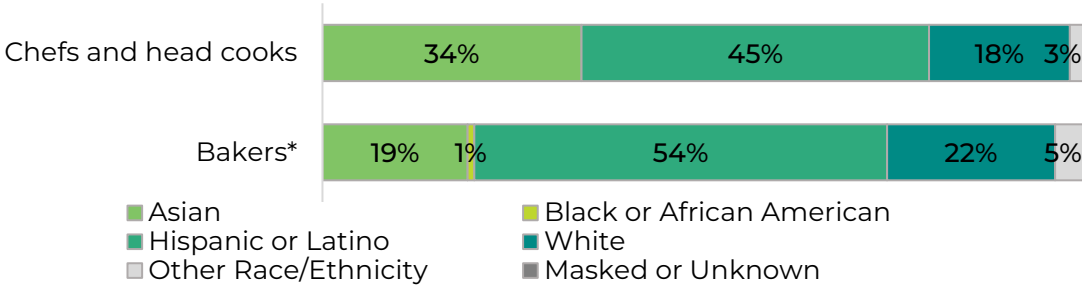


Exhibit 21 shows the disaggregated ethnicity data for each occupation, revealing potential disparities in entry into well-paying occupations or career advancement.

There is a higher percentage of Hispanic or Latino workers in the lower wage, below middle skill-occupation, *bakers\** (54%), compared to the middle-skill occupation *chefs and head cooks* (45%). Conversely, Asian workers make up a higher proportion of *chefs and head cooks* (34%) compared to their representation of *bakers\** (19%).

Exhibit 21: Disaggregated Ethnic Distribution by Occupation



## Age

Exhibit 22 compares the age of Orange County community college students enrolled in culinary arts programs, the overall Orange County population, and occupation-specific data for the two baking and pastry occupations included in this report.

While culinary arts students are concentrated in the 19 to 34 age range (60%), baking and pastry occupations are dominated by workers ages 35 and older (68%). This pattern indicates that progression into the field requires some experience or skill development, leading to a younger student pipeline and an older, more established workforce.

Exhibit 22: Program and County Demographics by Age

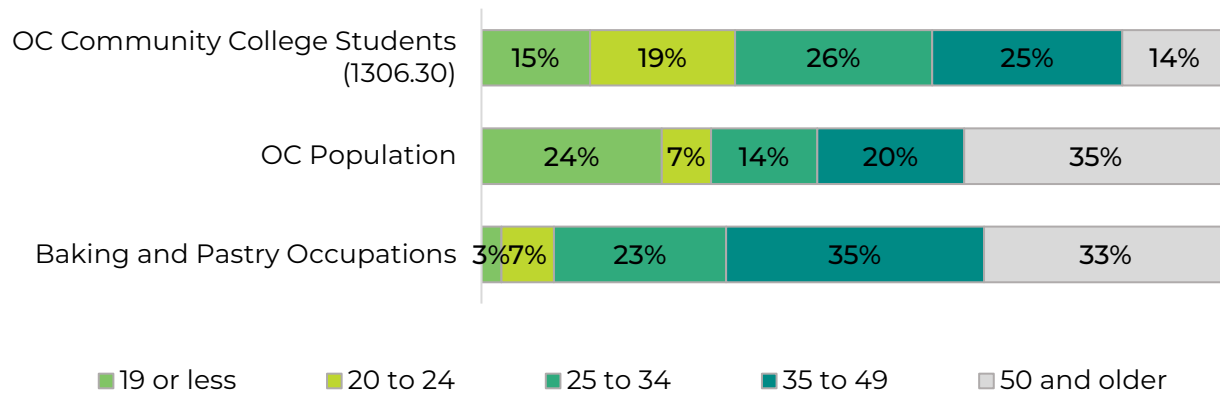
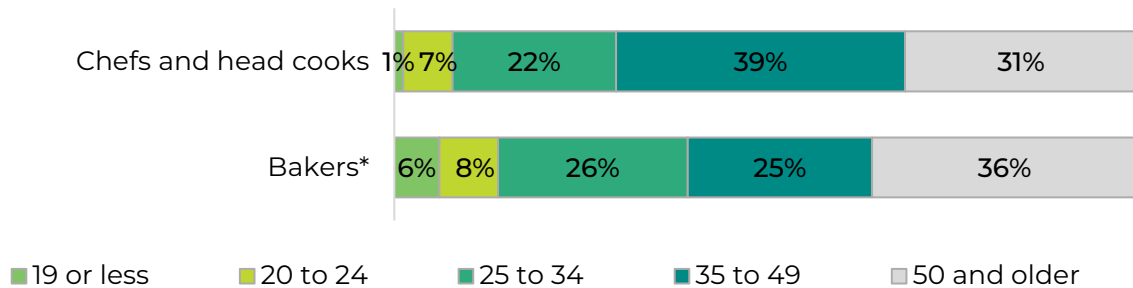


Exhibit 23 shows the disaggregated age data for each occupation, revealing potential disparities in entry into well-paying occupations or career advancement.

Workers employed as *chefs and head cooks* are similarly represented in age when compared to *bakers\**, except for those between the ages of 35 to 49 who are more represented as *chefs and head cooks* (39%) compared to *bakers\** (25%).

Exhibit 23: Disaggregated Age Distribution by Occupation



## Sex

Though the population is split evenly between women and men, only 34% of baking and pastry workers in the field and 35% of community college students are women.

Exhibit 24 compares the sex of Orange County community college students enrolled in culinary arts programs, the overall Orange County population, and occupation-specific data for these baking and pastry occupations.

Though the population is split evenly between women and men, only 34% of culinary arts workers in the field, and 35% of community college students, are women.

Exhibit 24: Program and County Demographics by Sex

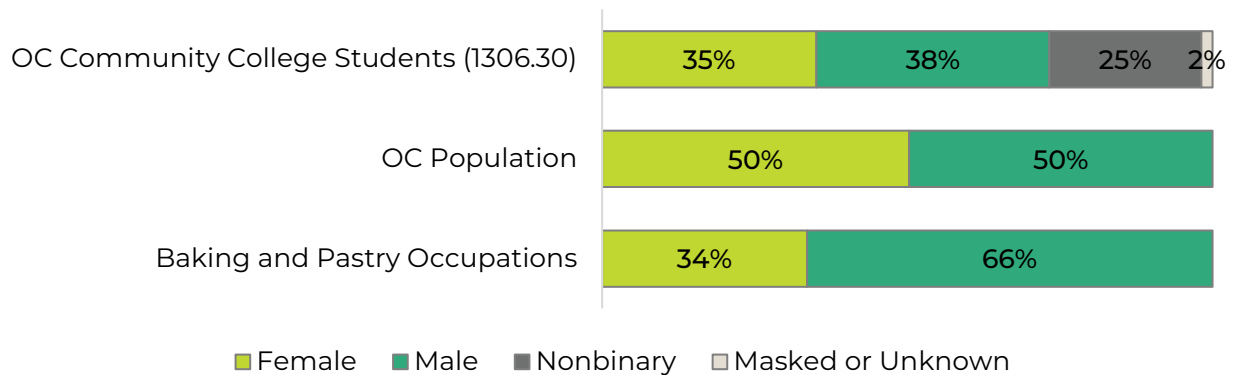
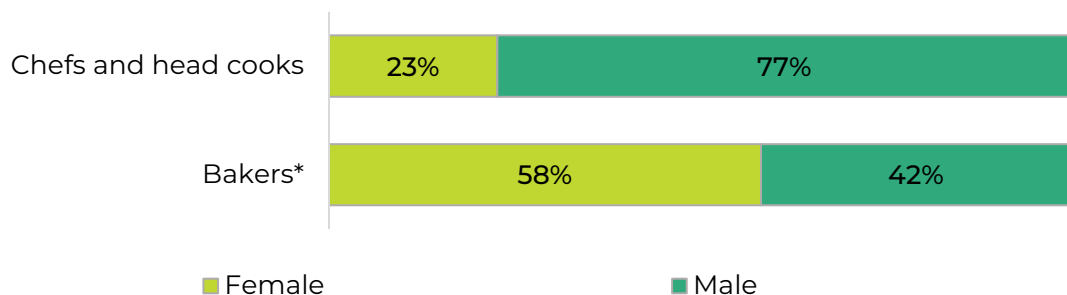


Exhibit 25 shows the disaggregated sex data for each occupation, revealing potential disparities in entry into well-paying occupations or career advancement.

Women are far more underrepresented in the higher paying occupation *chefs and head cooks* (23%) compared to the lower paying occupation *bakers\** (58%).

Exhibit 25: Disaggregated Sex Distribution by Occupation



## Appendix A: Methodology

OC COE prepared this report by analyzing occupational and educational program data. Occupational data comes from Lightcast, a labor market analytics firm which compiles information from the California Employment Development Department (EDD), U.S. Bureau of Labor Statistics (BLS), and other agencies. Analysis of emerging occupations is predicated on online job postings data combined with Occupational Information Network (O\*NET) profile descriptions. Program supply data was sourced from the California Community Colleges Chancellor's Office Data Mart (MIS Data Mart) ([datamart.cccco.edu](http://datamart.cccco.edu)) and 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, which was integrated into the COE's Supply Table. (IPEDS).

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 have 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 each occupation (SOC code) by analyzing the number of 3-year average program completers or awards in related TOP and CIP codes. TOP code data comes from MIS Data Mart and CIP code data comes from the IPEDS. The 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 throughout the United States and Canada. The California Community Colleges are the only system that use TOP codes.

The analysis reflects labor market demand for occupations closely related to the proposed program as expressed by the requesting college in consultation with the OC COE. assess current and projected employment based on data trends for detailed occupations, as well as annual average awards granted by regional postsecondary educational institutions. Real-time labor market information (online job postings) assesses employer preferences but cannot be used to measure the quantity of open positions, number of jobs, or annual openings.

All findings are based on the most current available data and a combination of primary and secondary sources. While care was taken to ensure accuracy, the OC COE, its host district, and the California Community Colleges Chancellor's Office are not responsible for individual decisions made based on this report.

## Appendix B: Data Sources

Data Type	Source
Occupational Projections, Wages, and Job Postings	Traditional and real-time labor market information are captured using data from <a href="#">Lightcast</a> (v.2026.1), a labor market analytics firm.
Living Wage	Per the CCCC's this report's endorsement criteria uses the <a href="#">University of Washington's Center for Women's Welfare Self-Sufficiency Standard</a> last updated in March 2024, which is \$27.13 per hour (\$57,294 annually) in Orange County. The <a href="#">MIT Living Wage</a> , updated on February 15, 2026, is a nationally recognized living wage metric and is provided for reference. The current MIT Living Wage in Orange County is \$36.53.
Typical Education and Training Requirements, and Educational Attainment	The <a href="#">Bureau of Labor Statistics (BLS)</a> 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.
Emerging Occupation Descriptions, Additional Education Requirements, and Employer Preferences	The <a href="#">O*NET</a> database includes information on skills, abilities, knowledges, work activities, and interests associated with occupations.
Educational Supply	The <a href="#">CCCCO Data Mart</a> provides information about students, courses, student services, outcomes and faculty and staff. The <a href="#">National Center for Education Statistics (NCES) Integrated Postsecondary Integrated Data System (IPEDS)</a> collects data on the number of postsecondary awards earned (completions).
Student Metrics and Demographics	<a href="#">Data Vista</a> (v.2.0), a statewide data system supported by the California Community Colleges Chancellor's Office provides data on progress, success, employment, and earnings outcomes for California community college students.
Population and Occupation Demographics	The <a href="#">Census Bureau's American Community Survey (ACS)</a> is the premier source for detailed population and housing information. Data is sourced from <a href="#">IPUMS USA</a> , a database providing access to ACS and other Census Bureau data products.

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