

Baking and Pastry Occupations Labor Market Information Report

Prepared by the San Francisco Bay Center of Excellence
for Labor Market Research
April 2018

Recommendation

Based on all available data, there appears to be a significant undersupply of Baking and Pastry workers compared to the demand for this cluster of occupations in the Bay region and in the East Bay sub-region (Alameda and Contra Costa Counties). The annual gap is about 8,050 students annually in the Bay region and 2,160 in the East Bay.

When only the demand for the Baker occupation is used in an effort to be conservative in estimating demand, and then compared to supply, the gap in the Bay region is still large but decreases to 517. In the East Bay sub-region the gap decreases to about 273 when only the demand for Bakers is used and compared to supply.

This report also provides student outcomes data on employment and earnings for programs on TOP 1306.30 – Culinary Arts, in the state and region. It is recommended that this data be reviewed to better understand how outcomes for students at Laney College taking courses on this TOP code compare to potentially similar programs at colleges in the state and region, as well as to outcomes across all CTE programs at Laney and in the region.

Introduction

This report profiles Baking and Pastry Occupations in the 12 county Bay region and in the East Bay sub-region for review of an existing program at Laney College. The SOC code 27-1029 Designers, All Other was also listed in the LMI request form. However, occupations included under that SOC code do not appear in any industry sectors related to culinary, baking or food. Therefore, it has not been included in this report.

- Chefs and Head Cooks (SOC 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.
Entry-Level Educational Requirement: High school diploma or equivalent
Training Requirement: None
Percentage of Community College Award Holders or Some Postsecondary Coursework: 40%
- Cooks, Restaurant (SOC 35-2014):** Prepare, season, and cook dishes such as soups, meats, vegetables, or desserts in restaurants. May order supplies, keep records and accounts, price items on menu, or plan menu.
Entry-Level Educational Requirement: No formal educational requirement
Training Requirement: Moderate-term on-the-job training
Percentage of Community College Award Holders or Some Postsecondary Coursework: 24%
- Bakers (SOC 51-3011):** Mix and bake ingredients to produce breads, rolls, cookies, cakes, pies, pastries, or other baked goods. Note: Pastry chefs in restaurants and hotels are included with 35-1011.
Entry-Level Educational Requirement: No formal educational requirement
Training Requirement: Long-term on-the-job training
Percentage of Community College Award Holders or Some Postsecondary Coursework: 29%

Occupational Demand

Table 1. Employment Outlook for Baking and Pastry Occupations in Bay Region

Occupation	2017 Jobs	2022 Jobs	5-Yr Change	5-Yr % Change	5-Yr Openings	Annual Openings	10% Hourly Wage	Median Hourly Wage

Chefs and Head Cooks	6,779	7,543	764	11%	5,154	1,031	\$11.73	\$21.33
Cooks, Restaurant	37,062	42,191	5,128	14%	32,552	6,510	\$10.44	\$13.77
Bakers	8,172	8,756	584	7%	6,475	1,295	\$10.36	\$13.56
Total	52,013	58,490	6,477	12%	44,182	8,836	\$10.60	\$14.72

Source: EMSI 2018.1

Bay Region includes Alameda, Contra Costa, Marin, Monterey, Napa, San Benito, San Francisco, San Mateo, Santa Clara, Santa Cruz, Solano and Sonoma Counties

Table 2. Employment Outlook for Baking and Pastry Occupations in East Bay Sub-Region

Occupation	2017 Jobs	2022 Jobs	5-Yr Change	5-Yr % Change	5-Yr Openings	Annual Openings	10% Hourly Wage	Median Hourly Wage
Chefs and Head Cooks	1,309	1,484	175	13%	1,031	206	\$10.90	\$15.48
Cooks, Restaurant	9,481	10,872	1,391	15%	8,432	1,686	\$10.17	\$12.27
Bakers	2,664	2,837	173	7%	2,087	417	\$10.46	\$13.43
Total	13,454	15,194	1,740	13%	11,550	2,310	\$10.30	\$12.81

Source: EMSI 2018.1

East Bay Sub-Region includes Alameda and Contra Costa Counties

Job Postings in Bay Region and East Bay Sub-Region

Table 3. Number of Job Postings by Occupation for latest 12 months (April 2017 – March 2018)

Occupation	Bay Region	East Bay
Cooks, Restaurant (35-2014.00)	4,488	975
Chefs and Head Cooks (35-1011.00)	1,549	214
Bakers (51-3011.00)	1,084	311
Total	7,121	1,500

Source: Burning Glass

Table 4. Top Job Titles for Baking and Pastry Occupations for latest 12 months (April 2017 – March 2018)

Common Title	Bay	East Bay	Common Title	Bay	East Bay
Cook	2,334	556	Banquet Cook	50	5
Line Cook	1,064	238	Assistant Cook	45	8
Prep Cook	697	129	Cocinero I	43	0
Sous Chef	532	67	Night Baker	37	19
Chef	455	70	Bakery Team Member	32	6
Executive Chef	341	52	SAT Instructor	32	6
Baker	289	87	Baker/Helper	28	12
Bakery Clerk	193	79	Head	27	2
Cake Decorator	134	42	Head Chef	24	0
Lead Cook	128	9	Expeditor	23	1
Pastry Cook	125	11	Pantry Cook	23	2
Executive Sous Chef	85	5	Flex Baker	19	6
Chef de Cuisine	64	12	Production Cook	19	2
Dish Washer	53	8	Bakery Production Team Member	14	5

Source: Burning Glass

Industry Concentration

Table 5. Industries hiring Baking and Pastry Workers in Bay Region

Industry – 6 Digit NAICS (No. American Industry Classification) Codes	Jobs in Industry (2017)	Jobs in Industry (2022)	% Change (2017-22)	% in Industry (2017)
Full-Service Restaurants (722511)	32,048	36,461	14%	61.6%
Hotels (except Casino Hotels) and Motels (721110)	2,935	3,082	5%	5.6%
Limited-Service Restaurants (722513)	2,613	2,899	11%	5.0%

Supermarkets and Other Grocery (except Convenience) Stores (445110)	1,868	1,994	7%	3.6%
Food Service Contractors (722310)	1,476	1,707	16%	2.8%
Caterers (722320)	1,237	1,492	21%	2.4%
Retail Bakeries (311811)	1,203	1,208	0%	2.3%
Commercial Bakeries (311812)	1,183	1,185	0%	2.3%
Snack and Nonalcoholic Beverage Bars (722515)	879	1,041	18%	1.7%
Drinking Places (Alcoholic Beverages) (722410)	542	636	17%	1.0%

Source: EMSI 2018.1

Table 6. Top Employers Posting Baking and Pastry Occupations in Bay and East Bay for latest 12 months (April 2017 – March 2018)

Employer	Bay	Employer	Bay	Employer	East Bay
Marriott International Incorporated	423	Atria Senior Living	57	Safeway Inc	105
Compass Group Plc United States	265	Brinker International	55	Marriott International Inc	84
Safeway Incorporated	260	Sprouts Farmers Markets	55	Bjs Restaurants Inc	59
Bjs Restaurants Incorporated	185	Sodexo	53	Whole Foods Market, Inc.	41
Whole Foods Market, Inc.	170	Destination Hotels & Resorts	52	Panera Bread	40
Bon Appetit Management Company	154	Habit Burger Grill	50	Compass Group Plc US	39
Hilton Hotel Corporation	146	Brookdale Senior Living	49	Einstein Noah Restaurant Group Inc (ENRGI)	26
Aramark	122	Guckenheimer Services, Llc	49	Sprouts Farmers Markets	26
Compass Group	122	Nordstrom	49	Applebee's Neighborhood Grill & Bar	24
Interstate Hotels & Resorts	100	Chili's	48	Wente Vineyards	22
Bon Appetit	98	Eurest	48	Benihana	20
Benihana	88	P.F. Chang's	46	Brinker International	20
Panera Bread	83	Doubletree Hotel	44	Chili's	20
The Cheesecake Factory	83	Apple Inc.	39	Habit Burger Grill	20
Ritz Carlton	75	Wyndham Worldwide	38	UC Berkeley	20
Sunrise Senior Living, Inc.	72	Red Robin Gourmet Burgers	36	P.F. Chang's	19
Hyatt	66	Sur La Table	36	Bon Appetit Management Company	18
Einstein Noah Restaurant Group Inc (ENRGI)	62	Auberge Resorts	32	The Cheesecake Factory	18
Applebee's Neighborhood Grill & Bar	59	Denny's	31	Compass Group	16

Source: Burning Glass

Educational Supply

There are six colleges in the Bay Region issuing 353 awards annually on TOP 1306.30 - Culinary Arts. There are five other educational institutions issuing 425 awards annually on the three CIP codes cross walked to TOP 1306.00 Nutrition, Foods & Culinary Arts: CIP 12.0501- Baking & Pastry Arts/Baker/Pastry Chef; CIP 12.0503 - Culinary Arts/Chef Training; and CIP 12.0599 - Culinary Arts & Related Services, Other, for a total of 778 awards annually in the region. There are three community colleges in the East Bay sub-region issuing 144 awards annually on TOP 1306.30.

Table 7. Awards on TOP 1306.30 - Culinary Arts or on CIP 12.0501- Baking and Pastry Arts/Baker/Pastry Chef, CIP 12.0503 - Culinary Arts/Chef Training or on CIP 12.0599 - Culinary Arts and Related Services, Other in Bay Region

College	Sub-Region	CIP Code	Headcount	Associates	Certificates	Noncredit	Total
Cabrillo	SC-Monterey	n/a	863	10	25	0	35
Contra Costa	East Bay	n/a	229	4	27	0	31
Diablo Valley	East Bay	n/a	381	12	40	0	52

Laney	East Bay	n/a	391	21	40	0	61
Mission	Silicon Valley	n/a	84	0	0	0	0
Monterey	SC-Monterey	n/a	200	0	0	0	0
San Francisco	Mid-Peninsula	n/a	244	27	0	31	58
Santa Rosa	North Bay	n/a	550	13	102	0	115
Argosy University-The Art Institute of CA-SF	Mid-Peninsula	12.0501	n/a	17	0	0	17
		12.0503	n/a	25	3		28
Argosy University-The Art Institute of CA-Silicon Valley	Silicon Valley	12.0501	n/a	7	2	0	9
		12.0503	n/a	19	2	0	20
CET-Sobrato*	Silicon Valley	12.0599	n/a	0	31	0	31
International Culinary Center-CA	Silicon Valley	12.0501	n/a	0	33	0	33
		12.0503	n/a	0	79	0	79
Le Cordon Bleu College of Culinary Arts-SF	Mid-Peninsula	12.0501	n/a	8	53	0	61
		12.0503	n/a	60	88	0	148
Total Bay Region			2,929	223	525	31	778
Total East Bay Sub-Region			1,000	37	107	0	144

Source: IPEDS, Data Mart and Launchboard

NOTE: Headcount of students who took one or more courses is for 2016-17. The annual average for awards is 2014-17 unless there are only awards in 2016-17. The annual average for other postsecondary is for 2013-16.

Gap Analysis

Based on all available data, there is a large labor market gap in the Bay region with 8,836 annual openings for the Baking and Pastry occupational cluster and 778 annual awards for an annual undersupply of 8,058. In the East Bay, there is also a gap with 2,310 annual openings and 144 annual awards for an annual undersupply of 2,166. When only the demand for the Baker occupation is used (in an effort to be conservative in estimating demand), and then compared to supply, the undersupply in the Bay region is still large but decreases to 517. In the East Bay sub-region the undersupply decreases to about 273 when only the demand for Bakers is used and compared to supply.

Student Outcomes

Table 8. Four Employment Outcomes Metrics for Students Who Took Courses on TOP 1306.30 - Culinary Arts

2015-16	Bay (All CTE Programs)	Laney (All CTE Programs)	State (1306.30)	Bay (1306.30)	East Bay (1306.30)	Laney (1306.30)	Top College on 1306.30 in the region	
% Employed Four Quarters After Exit	74%	67%	66%	68%	70%	64%	Contra Costa	78% (50 students)
Median Earnings Two Quarters After Exit	\$10,310	\$9,960	\$5,590	\$6,725	\$5,845	\$6,095	San Francisco	\$9,060 (48 students)
Median % Change in Earnings	46%	46%	72%	83%	136%	83%	Diablo Valley	151% (no. of students n/a)
% of Students Earning a Living Wage	63%	61%	38%	41%	31%	34%	Mission	70% (10 students)

Source: Launchboard (version available on 4/15/18)

Skills, Certificates and Education

Table 9. Top Skills for Baking and Pastry Occupations in Bay Region (April 2017 – March 2018)

Skill	Postings	Skill	Postings	Skill	Postings
Cooking	4,308	Customer Contact	286	Restaurant Management	101
Food Preparation	2,329	Guest Services	281	Product Knowledge	94
Cleaning	1,303	Basic Mathematics	277	Inventory Control	88

Food Safety	1,174	Customer Complaint Resolution	249	Teaching	85
Scheduling	1,147	Purchasing	243	Grinders	84
Teamwork/Collaboration	708	Merchandising	231	Repair	84
Customer Service	675	Restaurant Experience	211	Manual Dexterity	82
Food Service Experience	623	Packaging	209	Merchandise Labeling	81
Safety Training	525	Supervisory Skills	185	Service Improvement	79
Record Keeping	517	Occupational Health & Safety	159	Allergies	77
Budgeting	506	Quality Assurance & Control	159	Public Health and Safety	75
Cost Control	505	Meal Preparation	135	Adobe Freehand	74
Hazard Analysis Critical Control Point (HACCP)	499	Performance Appraisals	134	Product Location	74
Meal Serving	449	Customer Checkout	131	Training Programs	72
Asset Protection	424	Product Sales	131	Performance Analysis	71
Retail Industry Knowledge	414	Inventory Maintenance	125	Employee Relations	70
Lifting Ability	377	Food Service Industry Knowledge	119	Conflict Management	69
Staff Management	374	Sales	118	Legal Compliance	68
Equipment Cleaning	362	Machinery	115	Employee Training	66
Report Maintenance	335	Inventory Management	114	Event Catering	59
Food Safety and Quality	301	Quality Management	106	Hand Tools	59

Source: Burning Glass

Table 10. Certifications for Baking and Pastry Occupations in the Bay Region (April 2017 – March 2018)

Note: 79% of records have been excluded because they do not include a certification. As a result, the chart below may not be representative of the full sample.

Certification	Postings	Certification	Postings
ServSafe	727	First Aid CPR AED	26
Food Handler Certification	707	Certified Sous Chef	21
Food Service Certification	156	Alcohol Awareness Certification	18
Driver's License	106	Certified Health Education Specialist	12

Source: Burning Glass

Table 11. Education Requirements for Baking and Pastry Occupations in Bay Region

Note: 75% of records have been excluded because they do not include a degree level. As a result, the chart below may not be representative of the full sample.

Education (minimum advertised)	Latest 12 Mos. Postings
High school or vocational training	1,299 (74%)
Associate Degree	334 (19%)
Bachelor's Degree or Higher	121 (7%)

Source: Burning Glass

Methodology

Occupations for this report were identified by use of skills listed in O*Net descriptions and job descriptions in Burning Glass. Labor demand data is sourced from Economic Modeling Specialists International (EMSI) occupation data and Burning Glass job postings data. Educational supply and student outcomes data is retrieved from multiple sources, including CTE Launchboard and CCCC Data Mart.

Sources

O*Net Online

Labor Insight/Jobs (Burning Glass)

Economic Modeling Specialists International (EMSI)

CTE LaunchBoard www.calpassplus.org/Launchboard/

Statewide CTE Outcomes Survey

Employment Development Department Unemployment Insurance Dataset

Contacts

For more information, please contact:

- Karen Beltramo, Data Research Analyst, for Bay Area Community College Consortium (BACCC) and Centers of Excellence (CoE), karen@baccc.net or (831) 332-1253
- John Carrese, Director, San Francisco Bay Center of Excellence for Labor Market Research, icarrese@ccsf.edu or (415) 452-5529