

Food Manufacturing

Industry Overview: San Diego County

March 2021

Introduction

The San Diego-Imperial Center of Excellence for Labor Market Research (COE) completed this brief to provide the San Diego and Imperial Counties Community Colleges with employment information in the *Food Manufacturing* industry. To identify occupations primarily employed in *Food Manufacturing*, the San Diego-Imperial COE analyzed labor market information for companies in the following North American Industrial Classification System (NAICS) code, 311 – *Food Manufacturing*.

To identify occupations primarily employed in *Food Manufacturing*, the San Diego-Imperial COE analyzed labor market information for companies in the following North American Industrial Classification System (NAICS) code, 311 – Food Manufacturing. NAICS is system of industry codes used to classify companies based on their primary business activities or processes of production.¹ Using these NAICS codes, this brief summarizes employment trends (also known as “staffing patterns” in labor market research) in *Food Manufacturing*.

In 2020, San Diego County had 276 establishments in *Food Manufacturing* (Exhibit 1), which is 0.2 percent of the 117,115 establishments in the county.² (An establishment is a physical location of economic activity for a business. A single company may have multiple establishments.) San Diego County was below the national average earnings per job in 2020, with \$54,937 average earnings per job compared to \$61,337 in the nation (Exhibit 1). Additionally, San Diego County’s *Food Manufacturing* industry had 6,632 jobs in 2020, which is 62 percent below the national average in terms of job concentration.³

Exhibit 1: Fact Facts About San Diego County’s *Food Manufacturing* Industry⁴

276 Number of Establishments (2020)	\$54,397 Avg. Earnings Per Job (2020) Nation: \$61, 337	6,632 Jobs (2020)
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¹ “North American Classification System,” United States Census Bureau, [census.gov/eos/www/naics](https://www.census.gov/eos/www/naics).

² EMSI 2021.01; QCEW, Non-QCEW, Self-Employed.

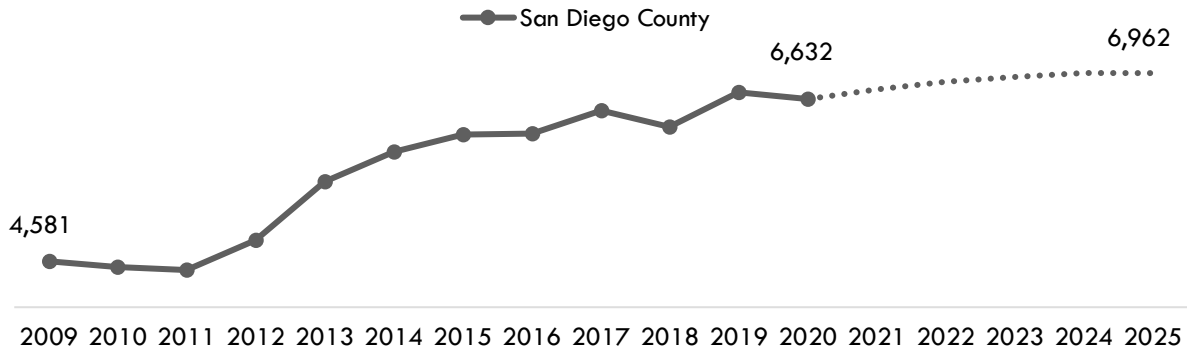
³ EMSI 2021.01; QCEW, Non-QCEW, Self-Employed.

⁴ EMSI 2021.01; QCEW, Non-QCEW, Self-Employed.

Employment and Demographics

Between 2020 and 2025, San Diego County’s *Food Manufacturing* jobs are projected to increase by **325** net jobs or **five** percent (Exhibit 2).

Exhibit 2: Number of Jobs in Food Manufacturing (San Diego County, 2009-2025)⁵



In 2020, individuals employed in *Food Manufacturing* under 35 years old amounted to 34 percent (Exhibit 3). During this period, 56 percent of individuals employed in *Food Manufacturing* were “Hispanic or Latino” (Exhibit 4).

Exhibit 3: Age Breakdown of Employment in Food Manufacturing (San Diego County, 2020)⁶

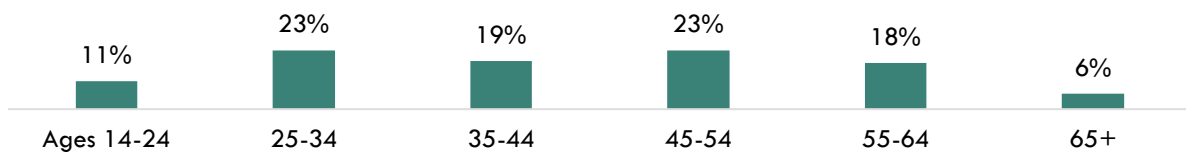
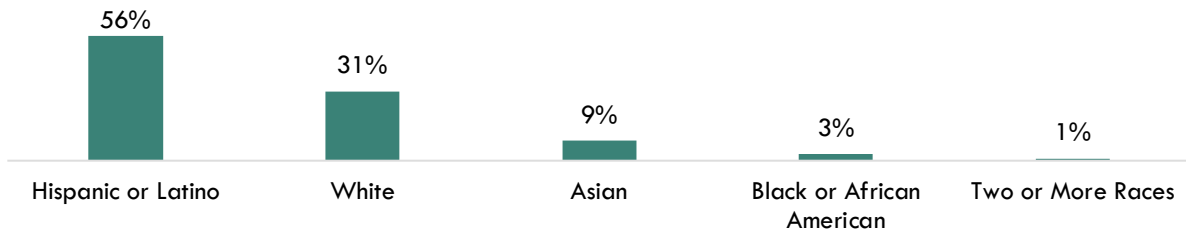


Exhibit 4: Ethnic Breakdown of Employment in Food Manufacturing (San Diego County, 2020)⁷



* May not total 100% due to rounding

⁵ EMSI 2021.01; QCEW, Non-QCEW, Self-Employed.

⁶ EMSI 2021.01; QCEW, Non-QCEW, Self-Employed.

⁷ EMSI 2021.01; QCEW, Non-QCEW, Self-Employed.

Top Occupations

The top occupations employed in San Diego County's *Food Manufacturing* are:

- **Agricultural and Food Science Technicians (SOC⁸ 19-4011):** Work with agricultural scientists in plant, fiber, and animal research, or assist with animal breeding and nutrition. Set up or maintain laboratory equipment and collect samples from crops or animals. Prepare specimens or record data to assist scientists in biology or related life science experiments. Conduct tests and experiments to improve yield and quality of crops or to increase the resistance of plants and animals to disease or insects. Work with food scientists or technologists to perform standardized qualitative and quantitative tests to determine physical or chemical properties of food or beverage products. Includes technicians who assist in research and development of production technology, quality control, packaging, processing, and use of foods.
- **Cleaning, Washing, and Metal Pickling Equipment Operators and Tenders (SOC 51-9192):** Operate or tend machines to wash or clean products, such as barrels or kegs, glass items, tin plate, food, pulp, coal, plastic, or rubber, to remove impurities.
- **Conveyor Operators and Tenders (SOC 53-7011):** Control or tend conveyors or conveyor systems that move materials or products to and from stockpiles, processing stations, departments, or vehicles. May control speed and routing of materials or products.
- **Cutting and Slicing Machine Setters, Operators, and Tenders (SOC 51-9032):** Set up, operate, or tend machines that cut or slice materials, such as glass, stone, cork, rubber, tobacco, food, paper, or insulating material.
- **First-Line Supervisors of Food Preparation and Serving Workers (SOC 35-1012):** Directly supervise and coordinate activities of workers engaged in preparing and serving food.
- **First-Line Supervisors of Mechanics, Installers, and Repairers (SOC 49-1011):** Directly supervise and coordinate the activities of mechanics, installers, and repairers. May also advise customers on recommended services. Excludes team or work leaders.
- **First-Line Supervisors of Production and Operating Workers (SOC 51-1011):** Directly supervise and coordinate the activities of production and operating workers, such as inspectors, precision workers, machine setters and operators, assemblers, fabricators, and plant and system operators. Excludes team or work leaders.
- **First-Line Supervisors of Transportation and Material Moving Workers (SOC 53-1047):** Directly supervise and coordinate the activities of helpers, laborers, or material movers, hand. Directly supervise and coordinate activities of material-moving machine and vehicle operators and helpers. Supervise and coordinate activities of passenger attendants.
- **Food and Tobacco Roasting, Baking, and Drying Machine Operators and Tenders (SOC 51-3091):** Operate or tend food or tobacco roasting, baking, or drying equipment, including hearth ovens, kiln driers, roasters, char kilns, and vacuum drying equipment.

⁸ The Standard Occupational Classification (SOC) system is used by federal statistical agencies to classify workers into occupational categories for the purpose of collecting, calculating or disseminating data. [bls.gov/soc](https://www.bls.gov/soc).

- **Food Scientists and Technologists** (SOC 19-1012): Use chemistry, microbiology, engineering, and other sciences to study the principles underlying the processing and deterioration of foods; analyze food content to determine levels of vitamins, fat, sugar, and protein; discover new food sources; research ways to make processed foods safe, palatable, and healthful; and apply food science knowledge to determine best ways to process, package, preserve, store, and distribute food.
- **Helpers--Production Workers** (SOC 51-9198): Help production workers by performing duties requiring less skill. Duties include supplying or holding materials or tools, and cleaning work area and equipment.
- **Industrial Engineers** (SOC 17-2112): Design, develop, test, and evaluate integrated systems for managing industrial production processes, including human work factors, quality control, inventory control, logistics and material flow, cost analysis, and production coordination.
- **Industrial Machinery Mechanics** (SOC 49-9041): Repair, install, adjust, or maintain industrial production and processing machinery or refinery and pipeline distribution systems. May also install, dismantle, or move machinery and heavy equipment according to plans.
- **Inspectors, Testers, Sorters, Samplers, and Weighers** (SOC 51-9061): Inspect, test, sort, sample, or weigh nonagricultural raw materials or processed, machined, fabricated, or assembled parts or products for defects, wear, and deviations from specifications. May use precision measuring instruments and complex test equipment.
- **Maintenance and Repair Workers, General** (SOC 49-9071): Perform work involving the skills of two or more maintenance or craft occupations to keep machines, mechanical equipment, or the structure of a building in repair. Duties may involve pipe fitting; HVAC maintenance; insulating; welding; machining; carpentry; repairing electrical or mechanical equipment; installing, aligning, and balancing new equipment; and repairing buildings, floors, or stairs.
- **Maintenance Workers, Machinery** (SOC 49-9043): Lubricate machinery, change parts, or perform other routine machinery maintenance.
- **Miscellaneous Assemblers and Fabricators** (SOC 51-2098): Work as part of a team having responsibility for assembling an entire product or component of a product. Team assemblers can perform all tasks conducted by the team in the assembly process and rotate through all or most of them, rather than being assigned to a specific task on a permanent basis. May participate in making management decisions affecting the work. Includes team leaders who work as part of the team.
- **Mixing and Blending Machine Setters, Operators, and Tenders** (SOC 51-9023): Set up, operate, or tend machines to mix or blend materials, such as chemicals, tobacco, liquids, color pigments, or explosive ingredients.
- **Packaging and Filling Machine Operators and Tenders** (SOC 51-9111): Operate or tend machines to prepare industrial or consumer products for storage or shipment. Includes cannery workers who pack food products.
- **Production Workers, All Other** (SOC 51-9199): All production workers not listed separately.
- **Separating, Filtering, Clarifying, Precipitating, and Still Machine Setters, Operators, and Tenders** (SOC 51-9012): Set up, operate, or tend continuous flow or vat-type equipment; filter presses; shaker screens; centrifuges; condenser tubes; precipitating, fermenting, or evaporating tanks; scrubbing towers; or batch stills. These machines extract, sort, or separate liquids, gases, or solids from other materials to recover a refined product. Includes dairy processing equipment operators.

Exhibit 5: Top Occupations in San Diego County for Food Manufacturing

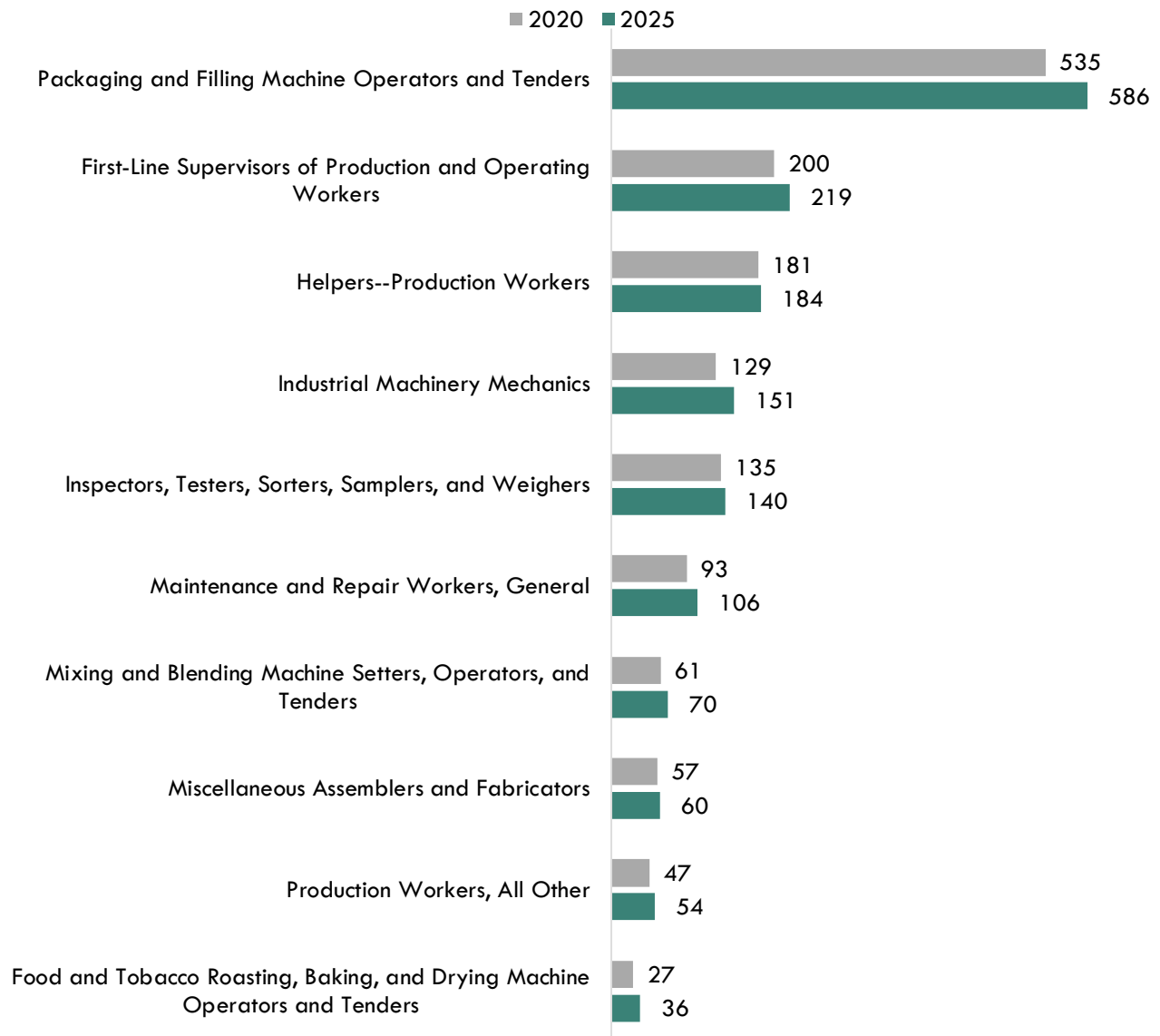
SOC	Occupational Title	Employed in Industry Group (2020)	Employed in Industry Group (2025)	% Change (2020 - 2025)	% of Total Jobs in Industry Group (2020)	Median Hourly Earnings	Typical Entry-Level Education	Work Experience Required	Typical On-The-Job Training (OJT)
51-9111	Packaging and Filling Machine Operators and Tenders	535	586	10%	8.1%	\$14.62	High school diploma or equivalent	None	Moderate-term OJT
51-1011	First-Line Supervisors of Production and Operating Workers	200	219	9%	3.0%	\$33.72	High school diploma or equivalent	Less than 5 years	None
51-9198	Helpers--Production Workers	181	184	2%	2.7%	\$14.50	High school diploma or equivalent	None	Short-term OJT
51-9061	Inspectors, Testers, Sorters, Samplers, and Weighers	135	140	4%	2.0%	\$22.75	High school diploma or equivalent	None	Moderate-term OJT
49-9041	Industrial Machinery Mechanics	129	151	17%	1.9%	\$27.48	High school diploma or equivalent	None	Long-term OJT
49-9071	Maintenance and Repair Workers, General	93	106	15%	1.4%	\$20.34	High school diploma or equivalent	None	Moderate-term OJT
51-9023	Mixing and Blending Machine Setters, Operators, and Tenders	61	70	16%	0.9%	\$18.15	High school diploma or equivalent	None	Moderate-term OJT
51-2098	Miscellaneous Assemblers and Fabricators	57	60	5%	0.9%	\$15.32	High school diploma or equivalent	None	Moderate-term OJT
51-9199	Production Workers, All Other	47	54	14%	0.7%	\$15.25	High school diploma or equivalent	None	Moderate-term OJT
17-2112	Industrial Engineers	30	33	11%	0.5%	\$45.94	Bachelor's degree	None	None

SOC	Occupational Title	Employed in Industry Group (2020)	Employed in Industry Group (2025)	% Change (2020 - 2025)	% of Total Jobs in Industry Group (2020)	Median Hourly Earnings	Typical Entry-Level Education	Work Experience Required	Typical On-The-Job Training (OJT)
53-1047	First-Line Supervisors of Transportation and Material Moving Workers, Except Aircraft Cargo Handling Supervisors	29	32	8%	0.4%	\$25.05	High school diploma or equivalent	Less than 5 years	None
51-9012	Separating, Filtering, Clarifying, Precipitating, and Still Machine Setters, Operators, and Tenders	27	32	19%	0.4%	\$19.69	High school diploma or equivalent	None	Moderate-term OJT
51-3091	Food and Tobacco Roasting, Baking, and Drying Machine Operators and Tenders	27	36	32%	0.4%	\$17.50	No formal educational credential	None	Moderate-term OJT
49-9043	Maintenance Workers, Machinery	26	28	7%	0.4%	\$26.05	High school diploma or equivalent	None	Long-term OJT
51-9192	Cleaning, Washing, and Metal Pickling Equipment Operators and Tenders	23	26	11%	0.3%	\$15.00	High school diploma or equivalent	None	Moderate-term OJT
49-1011	First-Line Supervisors of Mechanics, Installers, and Repairers	23	25	9%	0.3%	\$32.75	High school diploma or equivalent	Less than 5 years	None

SOC	Occupational Title	Employed in Industry Group (2020)	Employed in Industry Group (2025)	% Change (2020 - 2025)	% of Total Jobs in Industry Group (2020)	Median Hourly Earnings	Typical Entry-Level Education	Work Experience Required	Typical On-The-Job Training (OJT)
51-9032	Cutting and Slicing Machine Setters, Operators, and Tenders	15	17	12%	0.2%	\$17.35	High school diploma or equivalent	None	Moderate-term OJT
35-1012	First-Line Supervisors of Food Preparation and Serving Workers	14	13	-6%	0.2%	\$17.35	High school diploma or equivalent	Less than 5 years	None
53-7011	Conveyor Operators and Tenders	13	15	15%	0.2%	\$17.29	No formal educational credential	None	Short-term OJT
19-4011	Agricultural and Food Science Technicians	13	16	22%	0.2%	\$18.94	Associate degree	None	Moderate-term OJT
19-1012	Food Scientists and Technologists	10	15	45%	0.2%	\$35.65	Bachelor's degree	None	None

Of the top occupations, the top 10 occupations with the most number of jobs in Food Manufacturing are provided in Exhibit 6. *Packaging and Filling Machine Operators and Tenders* have the most number of jobs in Food Manufacturing (Exhibit 6). This occupation is projected to grow 10 percent (586 jobs) in Food Manufacturing by 2025 (Exhibit 5).

Exhibit 6: Top 10 Occupations Employed in Food Manufacturing in San Diego County by Number of Jobs 2020-2025⁹



⁹ EMSI 2021.01; QCEW, Non-QCEW, Self-Employed.

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Important Disclaimers

All representations included in this report have been produced from primary research and/or secondary review of publicly and/or privately available data and/or research reports. This study examines the most recent data available at the time of the analysis; 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 the report 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.

This workforce demand report uses state and federal job projection data that was developed before the economic impact of COVID-19. The COE is monitoring the situation and will provide more information as it becomes available. Please consult with local employers to understand their current employment needs.