

# Forklift Certification

*Inland Empire/Desert Region (Riverside and San Bernardino counties)*

*This workforce demand report uses state and federal job projection data 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 verify their current employment needs.*

## Introduction

Forklifts, also known as powered industrial trucks, are used in many industrial applications to raise, lower, or move large materials or smaller items on pallets or other containers (OSHA, 2022). Depending on their business activity, industries hire various workers to operate their forklifts. The Occupational Safety and Health Administration (OSHA) requires all forklift operators to be 18 years of age or older, undergo forklift certification prior to entering employment, and then be evaluated at least once every three years. OSHA guidelines for forklift training program content and standards are available on their website:

<https://www.osha.gov/etools/power-industrial-trucks/training>

This report utilizes a search of online job advertisements by Inland Empire/Desert regional employers to gauge the demand for workers in the region with forklift certification and the wages offered to these workers. The most common forklift certifications requested were:

- Forklift Operator Certification
- NCCER Heavy Equipment Operator (HEO): Forklift (<https://www.nccer.org/>)
- OSHA Forklift Certification

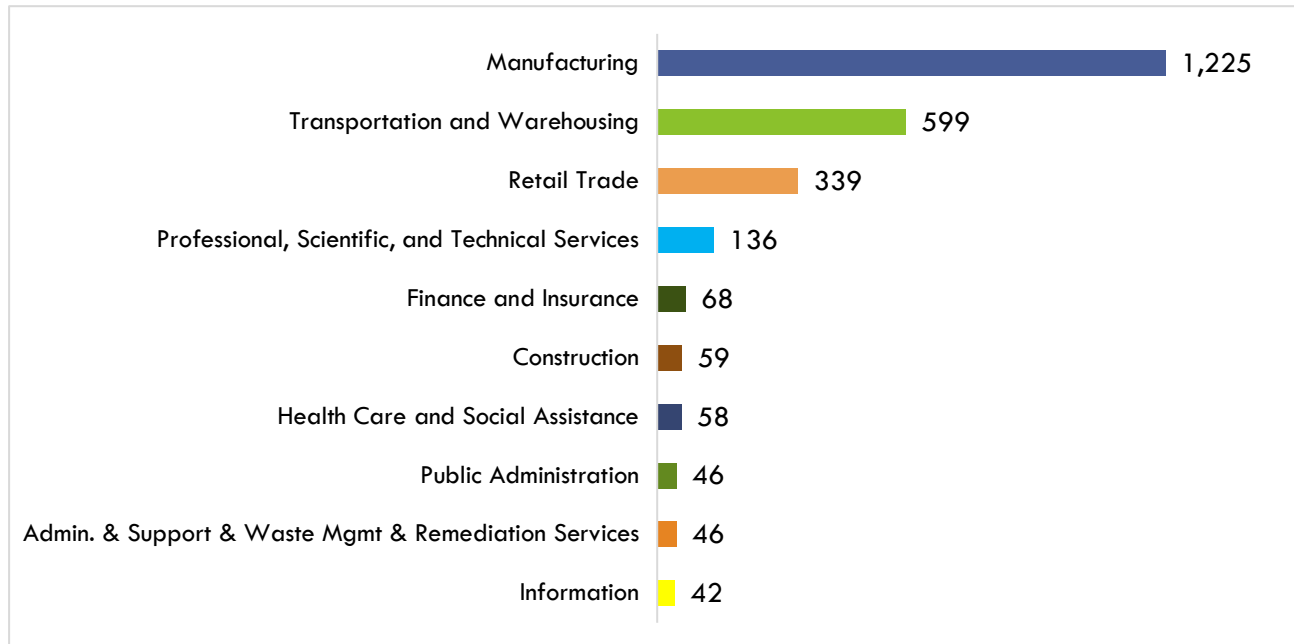
According to online job ad analytics, regional employer demand for forklift certifications is classified as “very high.” Regional employers posted 4,264 job ads over the last 12 months (July 2021 to June 2022) seeking workers with forklift certifications, just behind Los Angeles County employers with 4,837 job ads over the same period. However, at the county level, San Bernardino county employers are three times more likely to request forklift certifications for their workers (also the highest demand in the state) than employers in Los Angeles County and the nation as a whole; Riverside county employers are 1.8 times more likely to request certification for their forklift workers.

The California Community College program most closely associated with forklift certification and operation is the logistics and materials transportation (TOP 0510.00) program. Logistics and materials transportation programs prepare students for employment through instruction related to the theory, principles, functions, and procedures for the orderly and economic receiving, manufacturing, shipping, and servicing of products or services (Taxonomy of Programs, 2012).

## Industry Employer Demand

Industries are a group of business establishments organized by the goods they produce or the services they provide. Industry employers have various needs for forklift-certified workers; some industries use forklifts as a critical tool for everyday business operations, and some businesses may only need forklift-certified workers occasionally. Job ads reveal that nearly 29% (1,225 ads) of ads seeking forklift-certified workers were manufacturing employers. Transportation and warehousing and retail trade employers posted 599 and 339 ads, respectively. The top three industries posting job ads accounted for just over 50% of the total job ads seeking forklift-certified workers in the region. Exhibit 1 displays the count of jobs posted by industry employers seeking workers with forklift certifications.

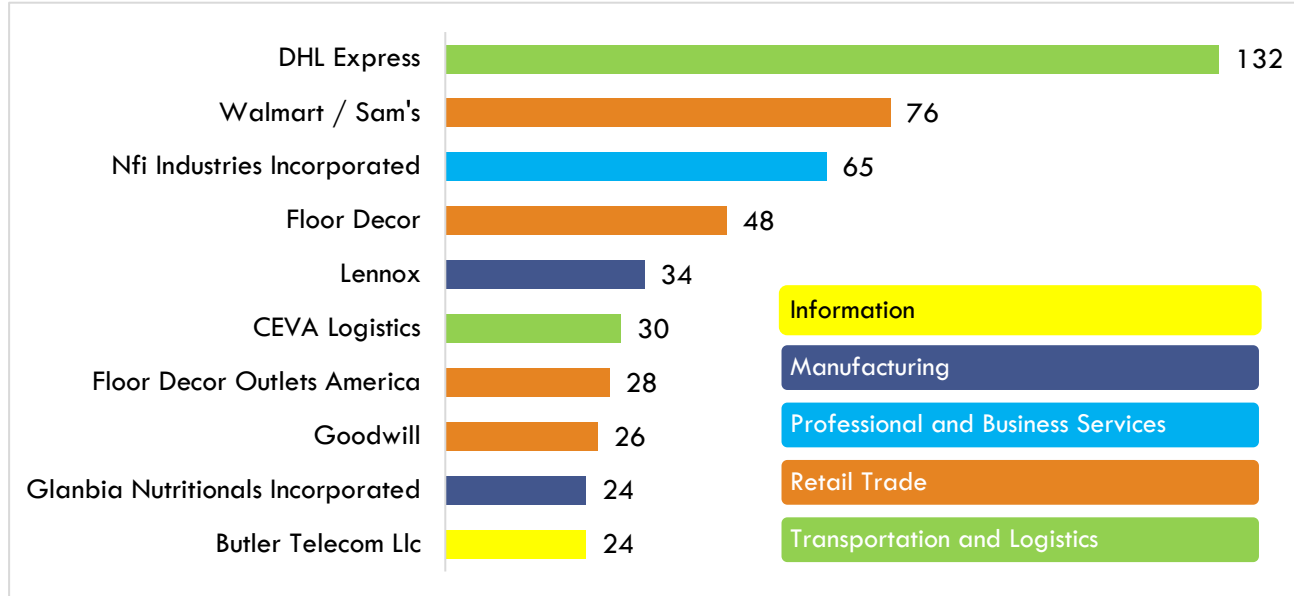
*Exhibit 1: Inland Empire/Desert major industry employers seeking workers with forklift certifications, last 12 months*



Source: Burning Glass – Labor Insights

The regional employers that posted the most job ads for workers with forklift certifications over the previous 12 months include DHL Express, Walmart/Sam’s, and NFI Industries Incorporated. Exhibit 2 displays employers posting the most job ads for forklift-certified workers, color-coded by the associated industry sector.

*Exhibit 2: Inland Empire/Desert employers seeking workers with forklift certifications last 12 months, by industry sector*



Source: Burning Glass – Labor Insights

## Occupational Employer Demand for Forklift Certified Workers

A forklift is a tool that may be used daily by occupational workers as part of a primary work duty or as an occasional “as needed” task. No single occupation is exclusively tied to the use of a forklift. Reviewing online job ads over the previous 12 months revealed employer demand for multiple occupations with forklift certifications. Exhibit 3 displays the occupations employers most frequently requested with forklift certifications, the share of job ads that specifically mention the need for forklift certifications, and the occupation’s 10-year projected growth. Each occupation in this group requires a minimum educational attainment level of a high school diploma or vocational training. Definitions for these occupations are available in the Appendix of this report.

*Exhibit 3: Inland Empire/Desert employer demand for occupations with forklift certifications over the last 12 months, the share of job ads specifically mentioning forklift certifications, and 10-year occupational growth*

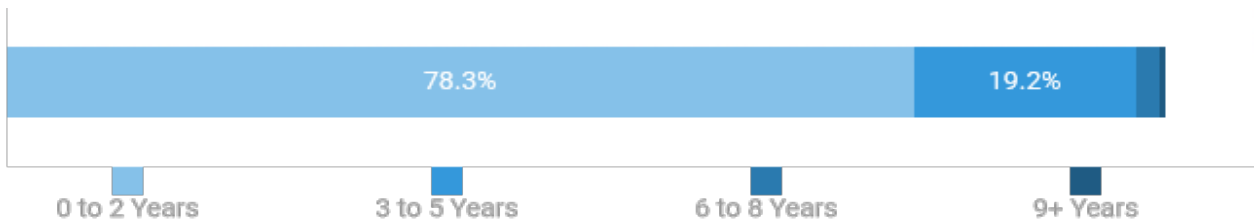
Specialized Occupation	Job Postings Requesting Certification(s) (%)	Occupation Projected Growth (10 Years)
Laborer / Warehouse Worker	4.8%	+22.9%
Forklift / Pallet Jack Operator	14.1%	+22.0%
Inventory Associate	7.3%	+9.2%
Shipping / Receiving Clerk	6.9%	+9.3%
Warehouse / Distribution Supervisor	9.7%	+16.2%

Specialized Occupation	Job Postings Requesting Certification(s) (%)	Occupation Projected Growth (10 Years)
Warehouse Manager	11.1%	+17.6%
Order Processor / Order Entry Clerk	1.1%	+13.9%
Building and General Maintenance Technician	1.6%	+18.8%
Production Worker	1.6%	+10.4%
Tractor-Trailer Truck Driver (General)	0.8%	+9.4%

Source: Burning Glass – Labor Insights

Most employers sought forklift-certified workers with 0-2 years of work experience. This indicates that employers are willing to hire workers with minimal experience, perfect for workers that recently completed a training course and are ready to enter employment. Exhibit 4 displays the work experience required by employers seeking forklift-certified workers.

Exhibit 4: Required work experience from employer job ads for forklift-certified workers



Source: Burning Glass – Labor Insights

### Skills Demand

Employers also indicated demand for various skills and forklift certification for prospective workers.

Specialized skills are occupation-specific skills that employers request for industry or job competency. Baseline skills are foundational skills that transcend industries and occupations; this category is often referred to as "soft skills." Exhibits 5 and 6 display the specialized and baseline skills employers sought when looking for forklift-certified workers.

Exhibit 5: Inland Empire/Desert specialized skills for certified forklift workers

Specialized Skills	Ads	Description
Forklift Operation	4,197	A forklift (also called lift truck, fork truck, fork hoist, and forklift truck) is a powered industrial truck used to lift and move materials over short distances.
Inventory Control	789	Inventory control or stock control can be broadly defined as the activity of checking a shop's stock.

Specialized Skills	Ads	Description
Inventory Management	777	Inventory management is a discipline primarily about specifying the shape and placement of stocked goods.
Occupational Health and Safety	663	Occupational safety and health (OSH), also commonly referred to as occupational health and safety (OHS), occupational health, or workplace health and safety (WHS), is a multidisciplinary field concerned with the safety, health, and welfare of people at work.
Repair	590	Restoration of a broken, damaged, or failed device, equipment, part, or property to an acceptable operating or usable condition or state.
Shipping and Receiving	571	Working experience of Shipping and Receiving, which is help a warehouse run smoothly, tracking inventory and keeping records, also packaging items, inspecting merchandise, and completing other related duties.
Customer Service	545	Customer service is the provision of service to customers before, during and after a purchase.
Scheduling	545	A schedule or a timetable, as a basic time-management tool, consists of a list of times at which possible tasks, events, or actions are intended to take place, or of a sequence of events in the chronological order in which such things are intended to take place.
Lifting Ability	506	Requires Lifting Ability, which is the ability to raise an object to a higher position or level, or pick up and move an object to a different position.
Warehouse Operations	443	A warehouse is a commercial building for the storage of goods.

Source: Burning Glass – Labor Insights

*Exhibit 6: Inland Empire/Desert baseline skills for certified forklift workers*

Baseline Skills	Ads	Description
Physical Abilities	1,744	Physical abilities refers to the ability to quickly and repeatedly bend, stretch, twist, or reach out with the body, arms, and/or legs. These abilities often require strength, endurance, flexibility, balance, and coordination.
Communication Skills	1,033	The ability to convey information to another effectively and efficiently.
Organizational Skills	938	The ability to use your time, energy, resources, etc. in an effective way so that you achieve the things you want to achieve
Detail-Oriented	909	A detail-oriented person is someone who pays attention to the details and can make a conscious effort to understand causes instead of just the effects, and that does this in a second nature type of way.
Computer Literacy	800	A computer is a device that can be instructed to carry out arbitrary sequences of arithmetic or logical operations automatically.

Baseline Skills	Ads	Description
English	782	English is a West Germanic language that was first spoken in early medieval England and is now a global lingua franca.
Work Area Maintenance	578	No Definition.
Teamwork / Collaboration	577	A Collaboration is a purposeful relationship in which all parties strategically choose to cooperate in order to achieve shared or overlapping objectives.
Microsoft Excel	466	Microsoft Excel is a spreadsheet developed by Microsoft for Windows, macOS, Android, and iOS. It features calculation, graphing tools, pivot tables, and a macro programming language called Visual Basic for Applications.
Planning	441	Planning (also called forethought) is the process of thinking about and organizing the activities required to achieve a desired goal.

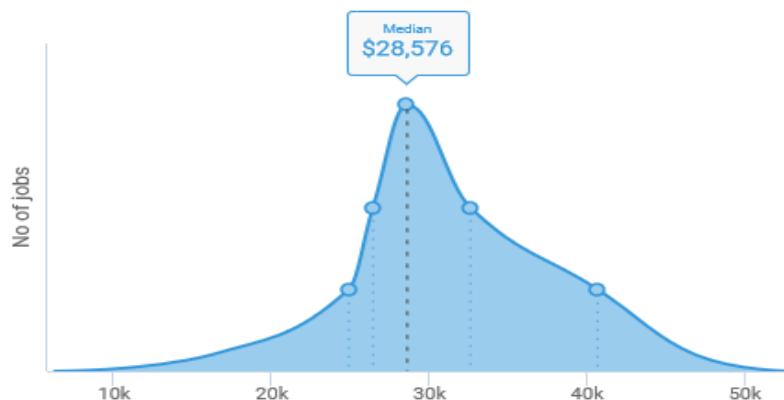
Source: Burning Glass – Labor Insights

## Earnings and Benefits

Community colleges should ensure their training programs lead to employment opportunities that provide a living wage. The MIT living wage calculator estimates that an individual must earn \$21.82 per hour or \$45,386 annually in California (Glasmeier, 2022).

The median hourly advertised wage for forklift-certified workers in the region is \$28,576 annually, below the regional living wage standard of \$45,386 annually. Exhibit 7 displays the percentile distribution of annual wages in online job ads. Reported wages were adjusted to reflect full-time work.

Exhibit 7: Inland Empire/Desert annual wages offered for certified forklift workers, last 12 months

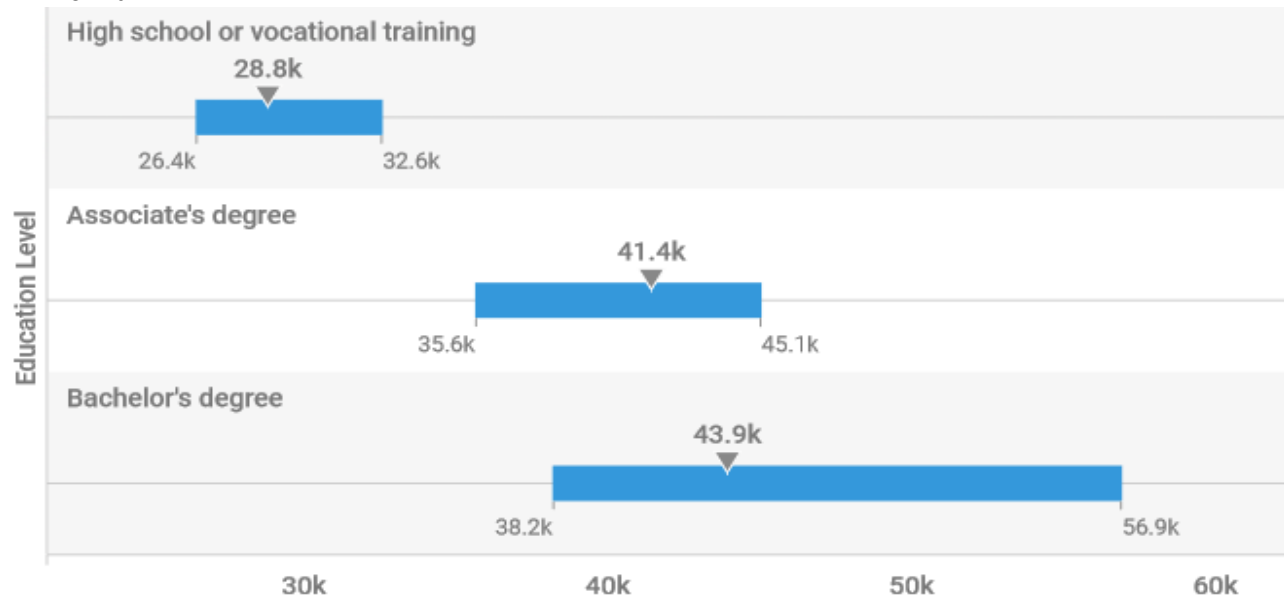


10th Percentile	25th Percentile	Median	75th Percentile	90th Percentile
\$25K	\$26K	\$29K	\$33K	\$41K

Source: Burning Glass – Labor Insights

Exhibit 8 displays the annual wages employers are willing to pay workers with various levels of educational attainment. Forklift-certified workers holding an associate degree are more likely to achieve self-sustainable wages than workers with a high school diploma or vocational training.

Exhibit 8: Inland Empire/Desert annual wages advertised for forklift-certified workers by educational level, last 12 months



Education	25th Percentile	Median	75th Percentile
High school or vocational training	\$26K	\$29K	\$33K
Associate degree	\$36K	\$41K	\$45K
Bachelor's degree	\$38K	\$44K	\$57K

Source: Burning Glass – Labor Insights

## Programs Completions and Student Outcomes

Exhibit 9 displays student completions for logistics and materials transportation (0510.00) programs over the last three academic years, 2018-21. Regional community colleges have issued 43 awards annually in logistics and materials transportation programs over the previous three academic years. Barstow College offers a noncredit forklift professional program. Program completion and student outcome methodologies can be found in the appendix.

Exhibit 9: 2018-21, Annual average community college awards for logistics and materials transportation programs in the region

TOP 0510.00 – Logistics and Materials Transportation (Local Program Title)	Academic Year 2018-19	Academic Year 2019-20	Academic Year 2020-21	Total CC Annual Average Awards, Academic Years 2018-21
<b>Barstow</b> (Warehousing and Logistics, Level 1 & 2)				<b>3</b>
Associate Degree	1	1	5	2
Certificate (8 to < 16 units)	0	0	1	0
<b>Chaffey</b> (Facilities Management, Supply Chain Management)				<b>11</b>
Associate Degree	8	10	4	7
Certificate (18 to < 30 units)	8	0	0	3
Certificate (16 to < 30 units)	0	3	0	1
<b>Norco</b> (Business Administration: Logistics, Logistics Management)				<b>30</b>
Associate Degree	10	11	12	11
Certificate (30 to < 60 units)	8	8	9	8
Certificate (18 to < 30 units)	9	0	0	3
Certificate (16 to < 30 units)	0	13	9	7
<b>Total</b>	<b>44</b>	<b>46</b>	<b>40</b>	<b>43</b>

Source: MIS Data Mart

California program outcome data may provide a useful insight into the likelihood of success for the proposed program. Community college student outcome information based on the selected TOP code and region is provided in Exhibit 10. The median annual earnings of all exiters was \$36,954, and 73% attained a living wage.

Exhibit 10: 0510.00 – Logistics and materials transportation strong workforce program outcomes

Strong Workforce Program Metrics: 0510.00 – Logistics and Materials Transportation Academic Year 2018-19, unless noted otherwise	Inland Empire/Desert Region	California
Unduplicated count of enrolled students (2019-20)	319	1,381
Completed 9+ career education units in one year (2019-20)	42%	40%
Perkins Economically disadvantaged students (2019-20)	87%	78%
Students who attained a noncredit workforce milestone in a year (2019-20)	-	77%
Students who earned a degree, certificate, or attained apprenticeship (2019-20)	32	164
Transferred to a four-year institution (transfers)	26	66
Job closely related to the field of study (2017-18)	100%	76%



<b>Strong Workforce Program Metrics: 0510.00 – Logistics and Materials Transportation Academic Year 2018-19, unless noted otherwise</b>	<b>Inland Empire/Desert Region</b>	<b>California</b>
Median annual earnings (all exiters)	\$36,954	\$39,938
Median change in earnings (all exiters)	-1%	19%
Attained a living wage (completers and skills-builders)	73%	65%

Sources: LaunchBoard Community College Pipeline and Strong Workforce Program Metrics

## Summary of Findings

This report provides online job ad demand for works with forklift certification and outcome data related to the California Community College logistics and materials transportation (TOP 0510.00) program. According to online job ads, the Inland Empire/Desert region is the most in-demand area in the state for forklift certifications. Projected job growth for the top occupations requiring forklift certification is strong. The median hourly wage offered to forklift-certified workers in the region is \$28,576 annually, below the regional living wage standard of \$45,386 annually. There does, however, appear to be an opportunity to achieve the living wage standard with increased educational attainment, associate degree or higher, and years of work experience.

Three regional community colleges conferred an annual average of 43 awards in logistics and materials transportation programs over the last three academic years. The median annual earnings of all exiters was \$36,954, and 73% attained a living wage.

The COE cautiously recommends expanding existing logistics and materials transportation programs. While demand for forklift-certified workers is high in the region, the low wages offered to this classification of workers are of concern. It does appear that forklift-certified workers will be able to achieve the living wage standard with increased educational attainment and years of work experience. Colleges considering this program should partner with employers to document the demand for community college-trained forklift certification document the skills, education, and additional certifications needed to close the self-sustainable wage gap shortly after entering employment in this field.

### Contact

Michael Goss  
Paul Vaccher  
Centers of Excellence, Inland Empire/Desert Region  
[michael.goss@chaffey.edu](mailto:michael.goss@chaffey.edu)  
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## Appendix: Forklift Occupation Descriptions

Occupation	Occupation Description
Laborer / Warehouse Worker	Moves or transports freight, stocks, and materials, usually without using machinery.
Forklift / Pallet Jack Operator	Operates forklift machinery used to lift heavy loads or pallets at a construction site, warehouse, or factory.
Inventory Associate	Monitors warehouse inventory and places orders with vendors for supplies. Conducts regular or occasional audits of inventory or sections of a warehouse.
Shipping / Receiving Clerk	Tracks all incoming and/or outgoing shipments at a company facility and checks that shipment orders are filled correctly. Uses scanning equipment to track inventory. Works in receiving to check shipments that are primarily production materials or company supplies, or checks outgoing shipments of finished products.
Warehouse / Distribution Supervisor	Manages daily operations at a warehouse. Hires, trains, and supervises warehouse staff, oversees inventory, and the distribution of materials to and from the warehouse.
Storage / Distribution Manager	Manages warehouse storage of inventory or supplies for a company. Maintains records of inventory and supplies; oversees distribution from storage out to customers, retail distributors, or other company facilities.
Building and General Maintenance Technician	Performs building maintenance and appliance repairs for an apartment complex, housing division, residential center, or business, as directed by a property manager.
Tractor-Trailer Truck Driver	Drives large trucks used to transport cargo, often across long distances.
Production Worker	Performs a variety of duties in a factory. Operates machinery, manages distribution, and provides quality control inspection.
Manufacturing Machine Operator	Operates machinery used in a manufacturing facility, including a range of machines used for the production or transport of goods.

## Appendix: Methodology

Exhibit 9 displays the average annual California Community College (CCC) awards conferred during the three academic years between 2018 and 2021 from the California Community Colleges Chancellor's Office Management Information Systems (MIS) Data Mart. Awards are the combined total of associate degrees and certificates issued during the timeframe, divided by three in this case to calculate an annual average. This is done to minimize the effect of atypical variations that might be present in a single year.

Community college student outcome information is from LaunchBoard and based on the selected TOP code and region. These metrics are based on records submitted to the California Community Colleges Chancellor's Office Management Information Systems (MIS) by community colleges, which come from self-reported student information from CCC Apply and the National Student Clearinghouse. Employment and earnings metrics are sourced from California's Employment Development Department's Unemployment Insurance database records. When available, outcomes for completers are reported to demonstrate the impact that earning a degree or certificate can have on employment and earnings. For more information on the types of students included for each metric, please see the web link for LaunchBoard's Strong Workforce Program Metrics Data Element Dictionary in the References section (LaunchBoard, 2022a). Finally, employment in a job closely related to the field of study comes from self-reported student responses on the CTE Employment Outcomes Survey (CTEOS), administered by Santa Rosa Junior College (LaunchBoard, 2022a).

Job ad data is limited to the information provided by employers and the ability of artificial intelligence search engines to identify this information. Additionally, preliminary calculations by Georgetown Center on Education and the Workforce found that "just 30 to 40 percent of openings for candidates with some college or an associate degree, and only 40 to 60 percent of openings for high school diploma holders appear online" (Carnevale et al., 2014). Online job ads often do not reveal employers' hiring intentions; it is unknown if employers plan to hire one or multiple workers from a single online job ad or collecting resumes for future hiring needs