

Manufacturing Advisory

Industry and hiring trends - occupation clusters

Feb. 2023



www.coecccc.net

Aaron Wilcher, Director
COE, Greater Sacramento (North)
Manufacturing Advisory panel
February 9, 2023

About the Centers of Excellence (COE)

California Community Colleges need to ensure that CTE curriculum produces workers with the skills relevant to the regional and statewide economies.

The COE provide **quality labor market data and information** to help colleges respond to workforce needs.

Uses of the data:



Investing in new and relevant programs



Assessing labor market needs



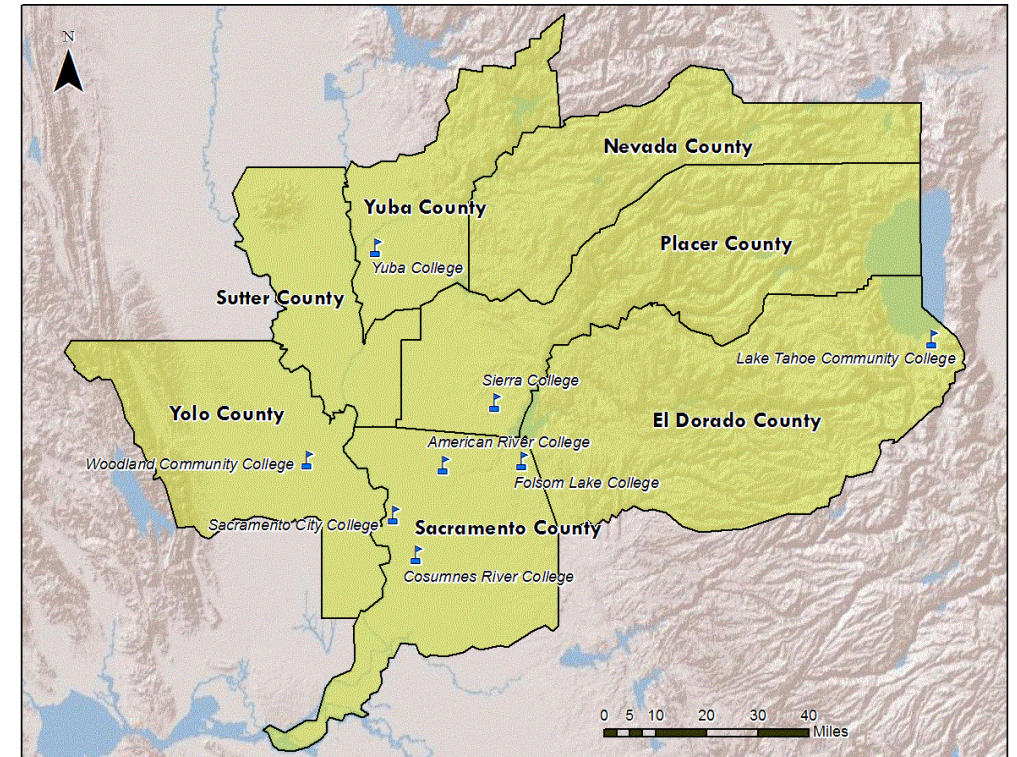
Reviewing existing programs



Pursuing grants

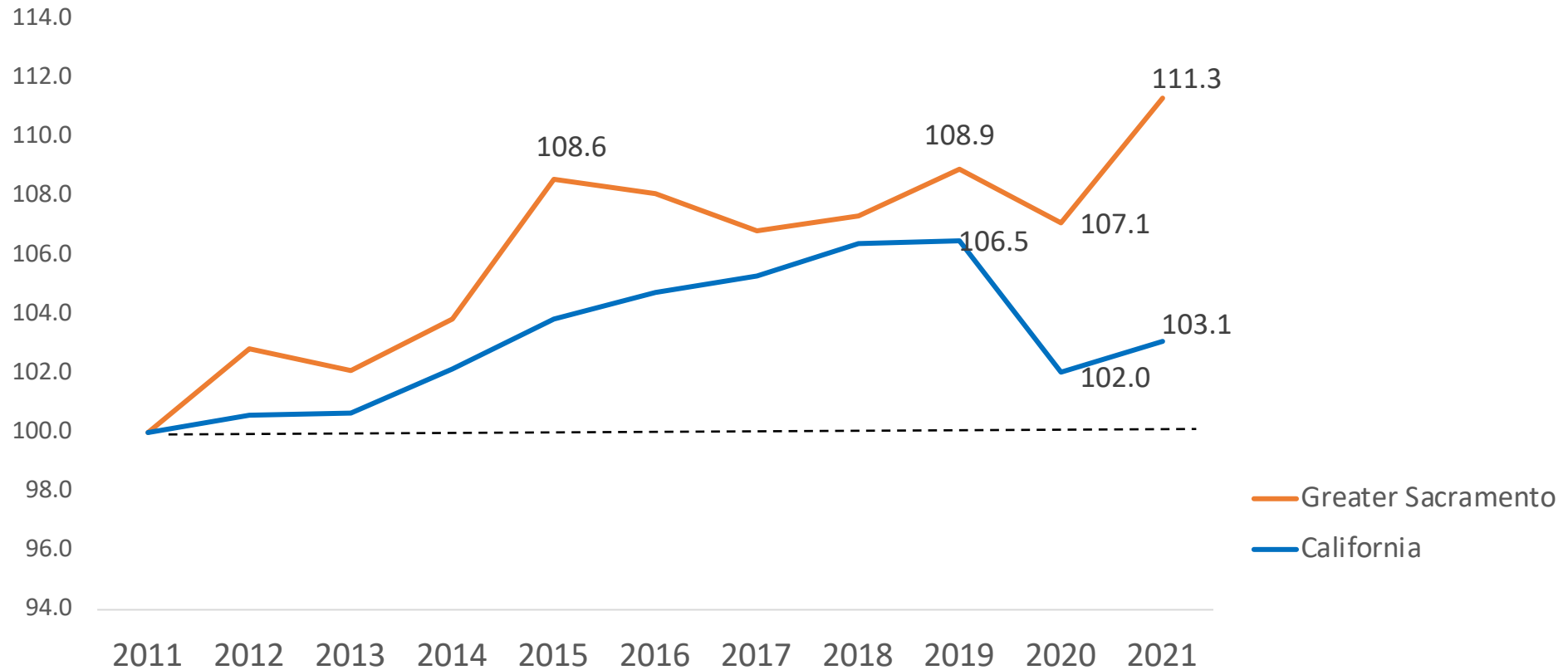
COE Presentation Overview

- Industry trends & specializations
- Jobs postings in specialized industries
- Occupations by skill level
- Occupation clusters
- Jobs postings in clusters
- Manufacturing demographics
- Related CC CTE programs



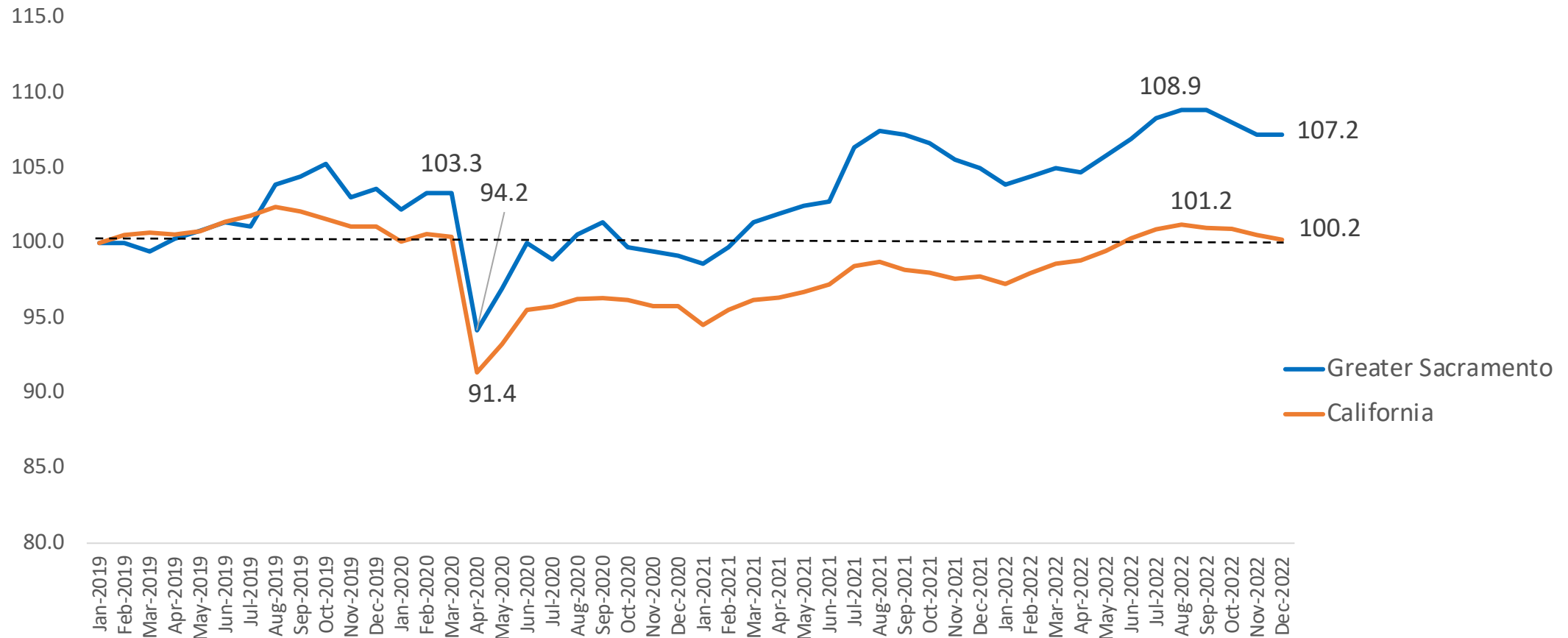
Manufacturing industry job trends and specializations

10-Yr Manufacturing Employment, 2011 – 2021 (indexed to 2011)



	2011	2016	2021
Greater Sacramento	37,310	40,328	41,535
California	1,284,140	1,345,055	1,323,740

Monthly Manufacturing Employment, Jan. 2019 – Dec. 2022 (indexed to Jan. 2019)



	Jan-2019	Apr-2020	Dec-2022
Sacramento MSA	36,100	34,000	38,700
California	1,310,900	1,197,900	1,313,900

Top - Specialized Manufacturing Industries, Sacramento Region

NAICS	Description	2021 Jobs		2016-2021 Jobs %Change		% of All MFG Jobs	
		Greater Sacramento	CA	Greater Sacramento	CA	Greater Sacramento	CA
334111	Electronic Computer Manufacturing	1,968	69,154	-15.0%	15.8%	4.7%	5.2%
336510	Railroad Rolling Stock Manufacturing	1,627	1,941	188.9%	112.3%	3.9%	0.1%
312111	Soft Drink Manufacturing	1,296	10,451	18.0%	-7.6%	3.1%	0.8%
311911	Roasted Nuts and Peanut Butter Manufacturing	1,104	5,774	12.9%	-0.9%	2.7%	0.4%
312130	Wineries	980	39,179	44.1%	8.2%	2.4%	3.0%
321911	Wood Window and Door Manufacturing	913	4,134	43.2%	13.0%	2.2%	0.3%
332321	Metal Window and Door Manufacturing	777	5,909	-1.3%	1.5%	1.9%	0.4%
312120	Breweries	739	11,828	124.7%	45.2%	1.8%	0.9%
311423	Dried and Dehydrated Food Manufacturing	673	3,603	13.4%	4.9%	1.6%	0.3%
333111	Farm Machinery and Equipment Manufacturing	663	4,375	10.8%	14.1%	1.6%	0.3%
327390	Other Concrete Product Manufacturing	623	4,284	-29.8%	-9.3%	1.5%	0.3%
321991	Manufactured Home (Mobile Home) Manufacturing	503	2,580	282.1%	93.1%	1.2%	0.2%

Sizeable employment:

- Computer electronics
- Wineries

Higher shares of sector vs. CA :

- Rail stock
- Food & Beverage manufacturing
- Beer
- Construction components

Top - Specialized Manufacturing Industries, Sacramento Region

NAICS	Description	2021 Establishments		2021 Average Earnings Per Job		2021 Location Quotient	
		Greater Sacramento	CA	Greater Sacramento	CA	Greater Sacramento	CA
334111	Electronic Computer Manufacturing	7	215	\$157,128	\$463,643	2.51	5.31
336510	Railroad Rolling Stock Manufacturing	3	15	\$104,609	\$103,826	11.64	0.84
312111	Soft Drink Manufacturing	8	132	\$83,223	\$88,407	2.22	1.08
311911	Roasted Nuts and Peanut Butter Manufacturing	2	48	\$104,075	\$80,685	9.61	3.03
312130	Wineries	99	2,036	\$48,862	\$87,014	1.86	4.48
321911	Wood Window and Door Manufacturing	8	144	\$73,264	\$71,581	2.28	0.62
332321	Metal Window and Door Manufacturing	14	171	\$70,736	\$73,612	1.59	0.73
312120	Breweries	58	607	\$46,240	\$64,978	1.06	1.02
311423	Dried and Dehydrated Food Manufacturing	8	84	\$68,168	\$76,330	7.45	2.40
333111	Farm Machinery and Equipment Manufacturing	20	167	\$81,176	\$83,475	1.48	0.59
327390	Other Concrete Product Manufacturing	10	117	\$91,124	\$80,621	1.58	0.65
321991	Manufactured Home (Mobile Home) Manufacturing	6	47	\$57,164	\$63,304	2.13	0.66

High concentrations:

- Rail stock
- Nuts
- Dried foods

Highest Earnings:

- Computer electronics
- Rail stock
- Nuts

Top employers in key manufacturing industries, Sacramento Region (Jan – Dec 2022)

Electronic Computer Manufacturing

- *Apple*
- *Hewlett Packard Enterprise*
- *Intel*

Railroad Rolling Stock Manu

- *Wabtec*
- *Alstom*
- *Siemens*

Soft Drink Manufacturing

- *PepsiCo*
- *Keurig Dr Pepper*
- *The Coca-Cola Company*

Roasted Nuts and Peanut Butter Manu

- *Blue Diamond Growers*
- *Mariani Nut Company*

Wineries

- *Vintners International*
- *Bogle Vineyards*
- *Willamette Valley Vineyards*

Wood Window and Door Manufacturing

- *Ply Gem*
- *Milgard Windows & Doors*
- *Anderson Windows*

Metal Window and Door Manufacturing

- *Milgard Manufacturing*
- *Quanex Building Products Corp.*
- *Overhead Door Corp.*

Breweries

- *Molson Coors*
- *Alibi Ale Works*
- *Gekkeikan Sake*
- *Drake's Brewing*

Dried and Dehydrated Food Manufacturing

- *Sunsweet Dryers*
- *Culinary Farms*
- *Sacramento Packing*

Farm Machinery and Equipment MFG

- *John Deere*
- *Vermeer Corporation*
- *Broekema Beltway USA*

Other Concrete Product Manufacturing

- *Jensen Precast*
- *Landmark Stone*
- *CTU Precast*

Manufactured Home (Mobile Home) Manufacturing

- *Skyline Homes*
- *Skyline International Limited*
- *Westland Distributing*

Top “middle skill” job titles in key manufacturing industries, Sacramento Region (Jan – Dec 2022)

Electronic Computer Manufacturing

- *Field Service Reps*
- *Structured Cabling Technicians*
- *Network technicians*

Railroad Rolling Stock Manu.

- *Maintenance Technicians*
- *Production technicians*
- *Testing engineers*

Soft Drink Manufacturing

- *Warehouse supervisors*
- *Machine Operators*
- *Route Sales Representatives*

Roasted Nuts and Peanut Butter Manufacturing

- *Operations Team Leads*
- *Quality Control*
- *Maintenance Workers*

Wineries

- *Tasting Room Associates*
- *Assistant Manager/Sales*
- *Territory Sales*

Wood Window and Door Manufacturing

- *Production Associates*
- *Field service technicians/managers*
- *Maintenance Technicians*

Metal Window and Door Manufacturing

- *Production Workers*
- *Service Technicians*
- *Inside Sales Representatives*

Breweries

- *Production Line / Technicians*
- *Head Chefs*
- *Brewers*

Dried and Dehydrated Food Manufacturing

- *Assistant Buyers*
- *Procurement Administrators*
- *Production operators*
- *Warehousing /production operators*

Farm Machinery and Equip MFG

- *Warehouse technicians*
- *Service Technician Apprentices*
- *Drafters*
- *Test engineers*

Other Concrete Product Manufacturing

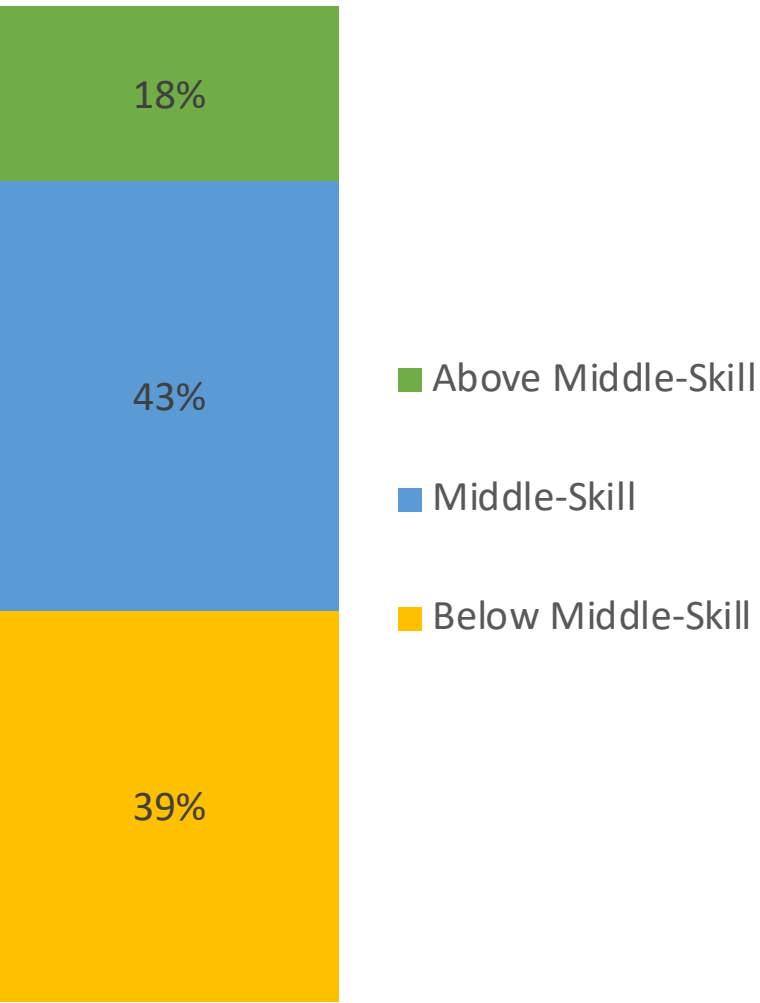
- *Estimating Coordinators*
- *Structural Drafters*
- *Inside Sales and Customer Service Representatives*

Manufactured Home (Mobile Home) Manufacturing

- *Production Workers*
- *Service Managers*
- *Quality Control Inspectors*
- *CNC operators*

Occupation analysis – overview and cluster profiles

Manufacturing occupation jobs by skill level, Sacramento Region (2021)



Skill level	2021 Employment	Share
Above Middle-Skill	7,235	18%
Middle-Skill	17,745	43%
Below Middle-Skill	16,182	39%

Manufacturing occupation jobs, above middle skill, Sacramento Region (2021-2026)

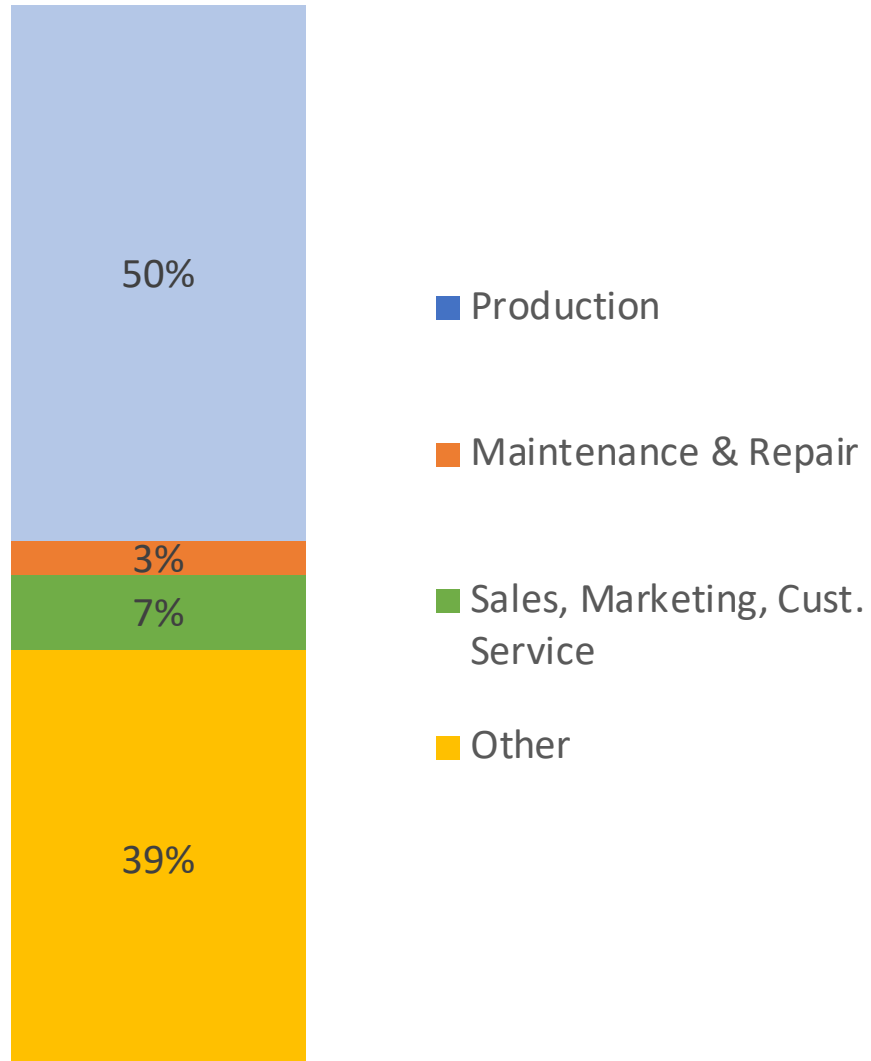
SOC	Description	Employed in Industry (2021)	2016-2021 Jobs %Change	5-Yr Projected Job %Change	2021-2026 Avg. Annual Openings	Median Hourly Earnings
11-3051	Industrial Production Managers	492	16.3%	12.0%	78	\$52.09
11-9041	Architectural and Engineering Managers	352	23.4%	12.5%	167	\$80.36
17-2141	Mechanical Engineers	350	6.9%	21.1%	100	\$47.84
11-2022	Sales Managers	345	12.2%	4.9%	408	\$50.24
17-2112	Industrial Engineers	324	10.2%	48.0%	80	\$46.69
17-2071	Electrical Engineers	271	-13.8%	16.8%	118	\$61.07
17-2061	Computer Hardware Engineers	251	-32.8%	5.8%	79	\$68.97
13-1161	Market Research Analysts and Marketing Specialists	213	6.6%	16.2%	615	\$30.36
27-1024	Graphic Designers	207	14.1%	-6.1%	133	\$29.05
41-4011	Sales Representatives, Wholesale and Manufacturing, Technical and Scientific Products	165	2.1%	14.4%	128	\$44.33
17-2072	Electronics Engineers, Except Computer	137	-25.1%	16.5%	63	\$54.64
17-2199	Engineers, All Other	129	41.2%	29.5%	96	\$48.26
11-2021	Marketing Managers	116	-12.3%	3.8%	175	\$63.05

Manufacturing occupation jobs, middle skill, Sacramento Region (2021 - 2026)

SOC	Description	Employed in Industry (2021)	2016-2021 Jobs %Change	5-Yr Projected Job %Change	2021-2026 Avg. Annual Openings	Median Hourly Earnings
51-9061	Inspectors, Testers, Sorters, Samplers, and Weighers	1,155	28.0%	14.3%	355	\$18.82
51-2028	Electrical, Electronic, and Electromechanical Assemblers, Except Coil Winders, Tapers, and Finishers	1,084	32.0%	3.2%	193	\$18.05
51-4121	Welders, Cutters, Solderers, and Brazers	1,021	59.5%	3.8%	329	\$23.66
41-4012	Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products	1,007	2.6%	11.2%	804	\$30.24
51-4041	Machinists	846	18.7%	17.3%	165	\$22.75
51-7011	Cabinetmakers and Bench Carpenters	568	3.1%	-4.2%	104	\$18.13
51-7042	Woodworking Machine Setters, Operators, and Tenders, Except Sawing	455	75.3%	20.2%	80	\$18.31
43-4051	Customer Service Representatives	452	9.3%	5.4%	2,366	\$18.19
49-9041	Industrial Machinery Mechanics	411	-11.0%	33.6%	139	\$29.76
43-5061	Production, Planning, and Expediting Clerks	410	2.5%	10.9%	307	\$23.54
51-9161	Computer Numerically Controlled Tool Operators	338	28.4%	21.6%	61	\$22.93
51-9011	Chemical Equipment Operators and Tenders	296	75.5%	6.1%	45	\$29.32
51-9195	Molders, Shapers, and Casters, Except Metal and Plastic	210	64.6%	19.7%	51	\$18.47
51-4031	Cutting, Punching, and Press Machine Setters, Operators, and Tenders, Metal and Plastic	208	-13.9%	27.1%	43	\$18.45

(1) Production (2) Maintenance and repair (3) Sales, Marketing, Customer service

Manufacturing occupation jobs by occupation cluster, Sacramento Region (2021)

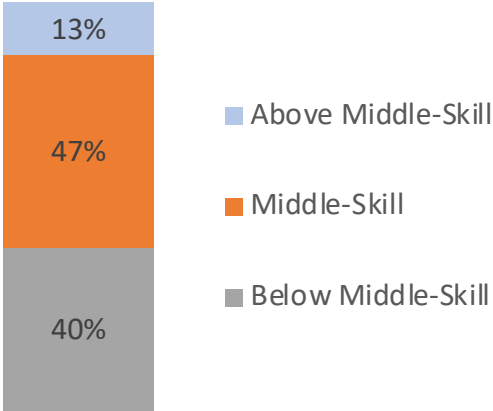


Occupation cluster	2021 Employment	Share
Production	20,750	50%
Maintenance & Repair	1,310	3%
Sales, Marketing, Cust. Service	2,910	7%
Other	16,192	39%

Manufacturing occupation data by skill level and category, Sacramento Region (2016 - 2026)

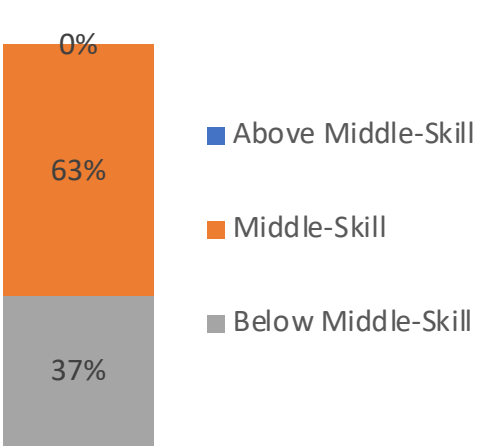
Production

Occupational Skill Level	Employed in Industry (2021)	2016-2021 Employed %Change	Projected 2021-2026 Employed %Change	Range of Median Hourly Earnings	2021-2026 Avg. Annual Openings
Above Middle-Skill	2,653	-3.5%	22.5%	\$37.68-\$80.36	1,584
Middle-Skill	9,791	8.1%	14.5%	\$14.44-\$37.04	4,653
All Skill Levels	20,750	5.4%	14.4%	\$14.44-\$80.36	9,177



Maintenance and Repair

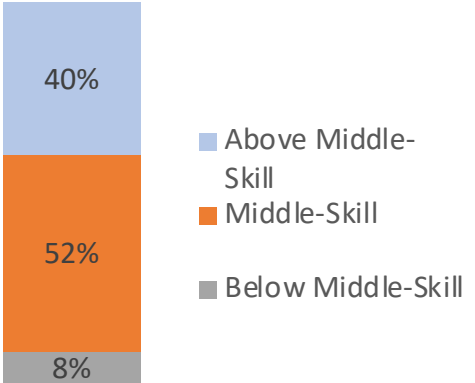
Occupational Skill Level	Employed in Industry (2021)	2016-2021 Employed %Change	Projected 2021-2026 Employed %Change	Range of Median Hourly Earnings	2021-2026 Avg. Annual Openings
Above Middle-Skill	-	-	-	-	-
Middle-Skill	821	-11.5%	27.8%	\$18.63-\$38.8	1,520
All Skill Levels	1,310	-2.7%	24.6%	\$18.63-\$38.8	2,799



Manufacturing occupation data by skill level and category, Sacramento Region (2016 - 2026)

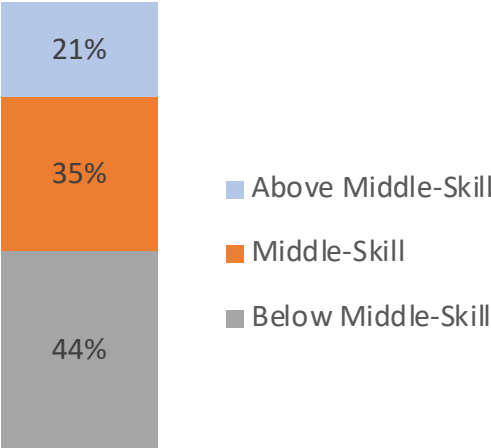
Sales, Marketing, Customer Service

Occupational Skill Level	Employed in Industry (2021)	2016-2021 Employed %Change	Projected 2021-2026 Employed %Change	Range of Median Hourly Earnings	2021-2026 Avg. Annual Openings
Above Middle-Skill	1,167	7.3%	7.2%	\$24.03-\$63.05	1,911
Middle-Skill	1,501	5.8%	9.1%	\$17.19-\$33.18	3,557
All Skill Levels	2,910	6.2%	8.6%	\$17.19-\$63.05	6,770



Other

Occupational Skill Level	Employed in Industry (2021)	2016-2021 Employed %Change	Projected 2021-2026 Employed %Change	Range of Median Hourly Earnings	2021-2026 Avg. Annual Openings
Above Middle-Skill	3,416	-2.0%	15.6%	\$31.11-\$78.03	11,279
Middle-Skill	5,633	-3.6%	7.3%	\$16.95-\$49.45	25,835
All Skill Levels	16,192	5.1%	10.6%	\$14.05-\$78.03	81,923



Top jobs postings by occupation cluster, Sacramento Region (Jan 2022 – Dec. 2022)

Maintenance & Repair

- *Maintenance Mechanics*
- *Fleet Mechanics*
- *Repair Technicians*
- *Diesel Technicians*

Production

- *Manufacturing Technicians*
- *Production Supervisors*
- *Mechanical Assemblers*

Sales, Marketing and Customer Service

- *Sales Representatives*
- *Customer Service Representatives*
- *Account Managers*

Other

- *CDL-A Truck Drivers*
- *Administrative Assistants*
- *Software Engineers*
- *Project Managers*

Top Job Titles

Maintenance & Repair

- *Amentum*
- *Cummins*
- *Trane Technologies*

Production

- *Intel*
- *Siemens*
- *Danaher*
- *ASML*

Sales, Marketing and Customer Service

- *Intel*
- *Siemens*
- *Thermo Fisher Scientific*

Other

- *Intel*
- *Siemens*
- *Northrop Grumman*

Top Employers

Maintenance & Repair

- *Hand Tools*
- *HVAC*
- *Hydraulics*
- *Preventive Maintenance*
- *Power Tool Operation*

Production

- *Electrical Engineering*
- *Computer Engineering*
- *Debugging*
- *Python (Programming Language)*
- *New Product Development*

Sales, Marketing and Customer Service

- *Marketing*
- *Selling Techniques*
- *Customer Relationship Management*

Other

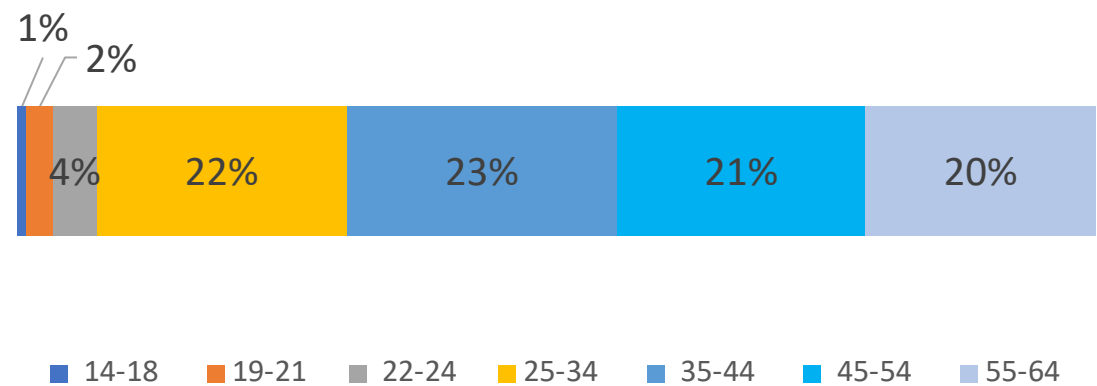
- *Computer Science*
- *Finance*
- *Python (Programming Language)*

Top Skills

Demographic profiles – Industry and students

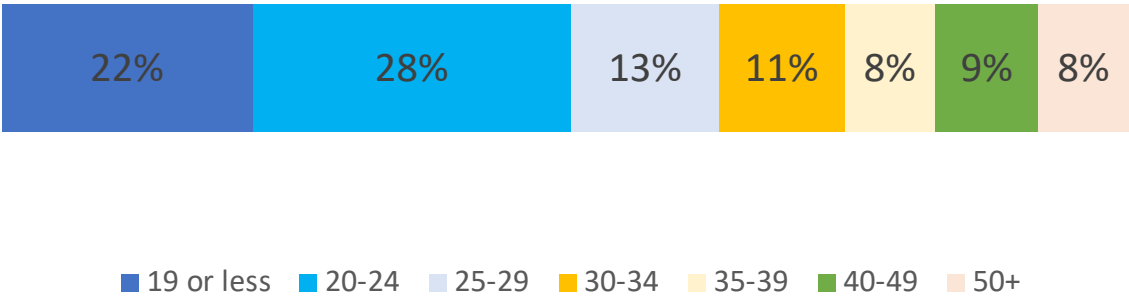
Manufacturing demographic profile- industry & CC students, Sacramento Region

Industry Age Profile



Source: Lightcast

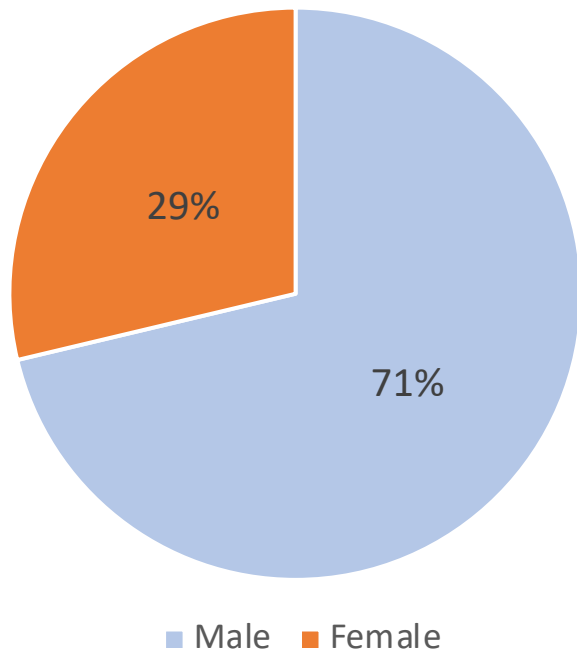
Student Age Profile



Source: CalPass Launchboard

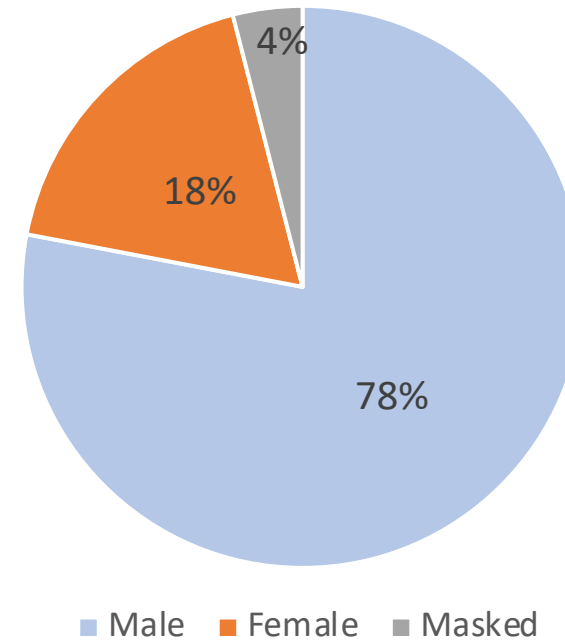
Manufacturing demographic profile- industry & CC students, Sacramento Region

Industry Gender Profile



Source: Lightcast

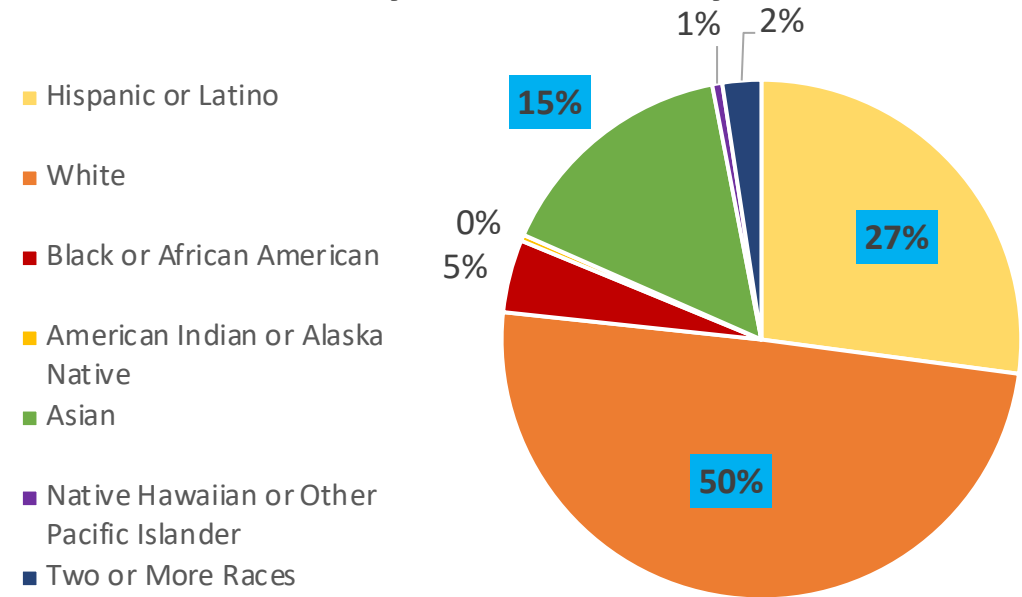
Student Gender Profile



Source: CalPass Launchboard

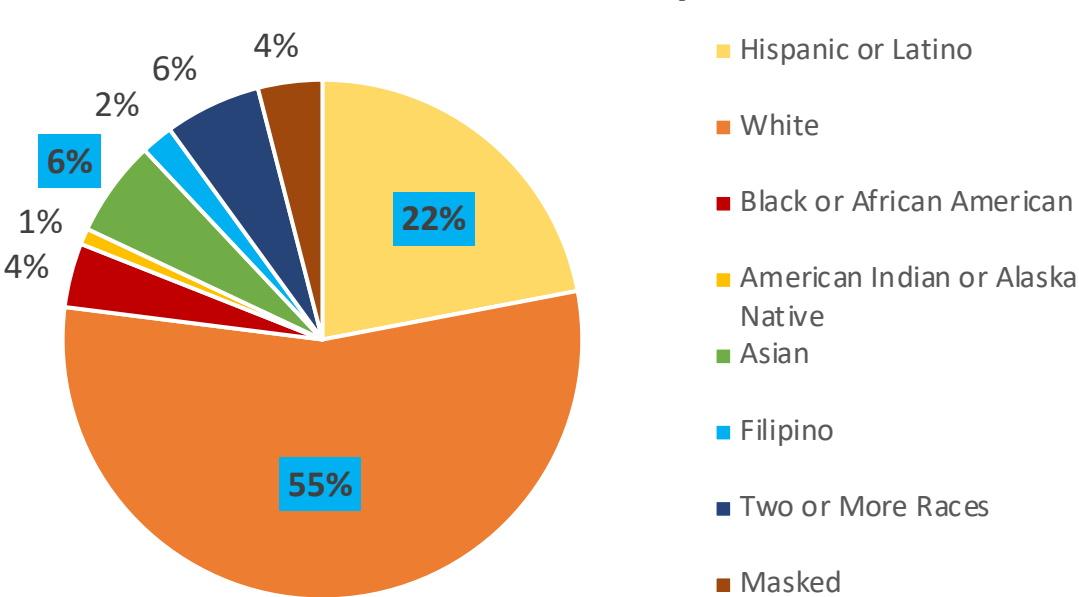
Manufacturing demographic profile- industry & CC students, Sacramento Region

Industry Race / Ethnicity Profile



Source: Lightcast

Student Race / Ethnicity Profile



Source: CalPass Launchboard

Related CTE programs

Manufacturing-related CC workforce education CTE programs, Sacramento Region

Sacramento City College

- Electronics technology
- Aircraft maintenance technician
- Mechanical-electrical technology
- Chemical technology
- Engineering design technology

Sierra College

- Advanced manufacturing
- Mechanical and civil drafting
- Machining
- Automotive technology
- Building industries
- Engineering
- Mechatronics
- Welding technology

American River College

- Design & engineering technology
- Electronics technology
- Auto collision technology
- Automotive / Diesel technology
- Solar energy technology
- Welding technology
- Marketing
- Biotechnology

Cosumnes River College

- Architectural design technology
- Automotive technology
- Construction management
- Welding
-

Folsom Lake College

- Water / wastewater management
- Manufacturing and Industrial Tech (MITECH) Modern Making
- CAD/CAM Programming
- Quality Technician
- Production Planning

Yuba College / Woodland CC

- Automotive technology – Autobody
- Welding
- Manufacturing technology
- Machining – CNC
- Water/ wastewater technology

Other related programs in Business Administration, Management, Computer Information Science

Manufacturing Awards, Enrollments, Openings, North/Far North region strategic plan 2023

Avg. Enrollments

3,100

Avg. Awards

450

Avg. Annual Openings

2,900

Awards:Openings GAP

2,500

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