



## CAPITAL REGION MANUFACTURING SECTOR

### Regional Advisory Committee Meeting Summary

Sacramento City College, Sacramento – May 23, 2019

Sierra College, Rocklin – June 4, 2019

Folsom Lake College Satellite Center, Placerville – June 6, 2019



## Introduction

California is investing in the Strong Workforce Program to help fill the growing demand for “middle-skill” positions that require more than a high school diploma, but not necessarily a 4-year college degree. One million more associate degrees, certificates, or industry-valued credentials will be needed by 2025 to meet projected demand.

The objective of the Strong Workforce Program is to offer more Career Education (CE) opportunities, and to improve the outcomes of CE programs for both students and employers. Connecting the needs of students, educators and employers is critical to building a strong regional workforce and a competitive economy, while providing opportunities for workers to gain skills and income mobility.

## Overview

The Manufacturing Regional Advisory Board meetings were held across three locations between May and June at local community colleges: Sacramento City College, Sierra College, and Folsom Lake College Satellite Center at El Dorado County. The purpose of the meetings was to:

- Learn about existing programs throughout the region and identify gaps in certificates, courses or entire programs throughout the region
- Establish new relationships between education and business partners that did not already exist
- Learn what skills employers have the most difficulty finding and their priorities to fill gaps

The Regional Advisory structure is intended to benefit the region’s target industry sectors by facilitating ongoing collaboration amongst employers, education, and workforce partners to review, and discuss information on existing education and training programs, and to plan for updating and enhancing programs to meet workforce requirements. This ongoing collaboration is critical to in preparing students with required workforce skills, and to ensure education and training programs keep pace with industry change. Given the rapid digitalization of workforce skills required across all industries sectors, ongoing collaboration is an imperative.

## Meeting Proceedings

Three meetings across the region were hosted in Sacramento, Rocklin, and Placerville area. Each meeting began with a welcome and introduction from education and industry leaders, such as Sacramento City College President, Michael Gutierrez; Sacramento Valley Manufacturing Initiative ([SVMI](#)) President, Kevin McGrew; Sierra College Dean of Business and Technology, Amy Schulz; and

### Valley Vision’s 21<sup>st</sup> Century Workforce Projects

In partnership with the **Los Rios Community College District**—and in collaboration with Sierra College and the Yuba Community College District— Valley Vision is convening Regional Advisory Committee meetings for Career Education (CE) across multiple industry sectors. This project is a [Strong Workforce Program](#) investment. Regional Advisory Committees are envisioned to help obtain timely information from employers on priority workforce needs; to improve efficiency of the CE advisory process for educators and employers; and to broaden opportunities for more systemic engagement.

The Strong Workforce regional advisory efforts are linked to Valley Vision’s partnership with the region’s four Workforce Innovation Boards on a **Regional Planning** process to help streamline and strengthen employer participation. The regional planning initiative includes a focus on the [Future of Work](#) and how the digitalization of jobs and skills will impact the region’s workforce.

These efforts are helping to inform and guide decisions on education and workforce training investments and programs to meet current workforce priorities and catalyze the pipeline of future workers needed for a thriving economy.

These projects support the Capital Region Workforce Action Plan. Funded by JPMorgan Chase & Co., regional industry cluster research and analysis was conducted by Valley Vision in partnership with the Los Rios Center of Excellence. Workforce assessments identify critical **skills gaps, high-demand occupations, and investments** needed to build a skilled and competitive workforce.

<https://valleyvision.org/our-impact/21st-century-workforce/>

North Region DSN for Advanced Manufacturing Michael Bell ([Appendix 1](#)). Background was produced on both the current state of manufacturing in the region and programs.

## Community College Education Program Overview

A review of the current state of manufacturing education programs across the [North Region](#)<sup>1</sup> (Greater Sacramento) was presented to learn about existing programs throughout the region and identify gaps in skills, courses, or entire programs. The presentation was all-encompassing of programs offered in high schools and community colleges; with an overview of course structure, credential variety, course types, for-credit and noncredit coes ([Appendix 2](#)).

### Manufacturing

*The manufacturing sector is alive and growing in the Sacramento region. The manufacturing sector today has a high economic impact on the region, offers great career opportunities, and requires a skilled workforce.*

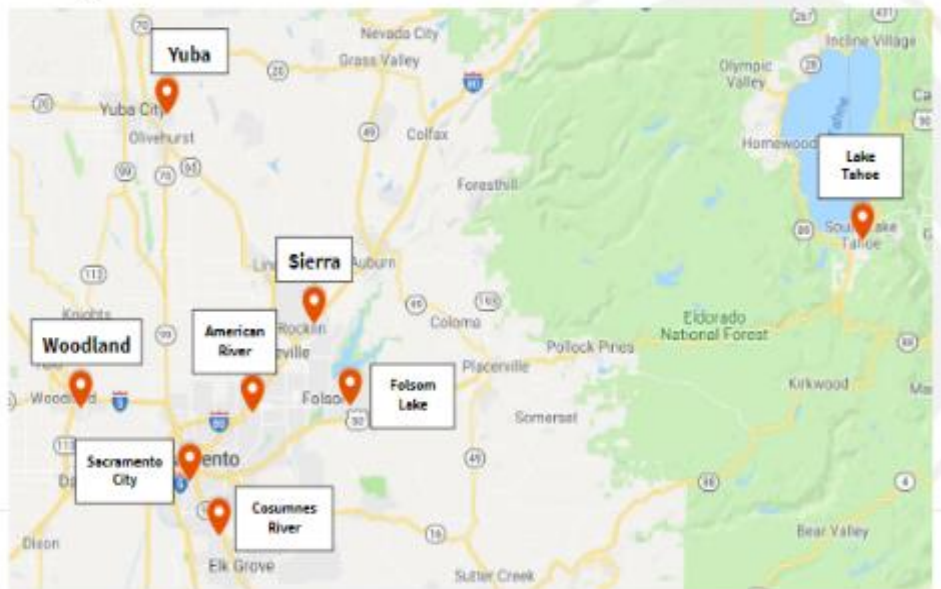
*The manufacturing industry offers rewarding careers that can be achieved with training and certification that don't require a four-year college degree. It's often assumed that obtaining a college degree is the only path to success. However, careers in manufacturing, building, and the trades offer well-paying jobs and opportunity for advancement – both for those with and without 4-year degrees. All students, working age adults, and career changers in need of employment opportunities with solid potential should be aware of these career paths. Career technical education programs offered at local high schools and community colleges can provide a pathway for a plethora of opportunities.*

Source 1: "Project: Sacramento Valley Manufacturing Initiative." Valley Vision, <https://valleyvision.org/projects/capital-region-workforce-action-plan/sacramento-valley-manufacturing-initiative/>

## Summary of Community College Programs

### • 8 colleges in the North Region

- American River
- Cosumnes River
- Folsom Lake
- Lake Tahoe
- Sacramento City
- Sierra
- Woodland
- Yuba



Source 2. Bell, M. (2019). *Regional Advisory Meeting - Advanced Manufacturing Sector*. Retrieved August 15, 2019.

<sup>1</sup> El Dorado, Nevada, Placer, Sacramento, Sutter, Yolo, and Yuba counties.



**The manufacturing sector in the Sacramento region has lost 30% of its employment since 2001 (-17,000 jobs).**

**The sector has displayed resiliency since the recession, gaining about 3,000 jobs since 2011.**

source: EMSI.2019.2



**These key middle skill occupations in manufacturing pay between \$17 and \$33 per hour**

source: EMSI 2019.2

Occupation	Openings
Electronics Engineering Technicians	120
Welders	236
Industrial M & R	150
M & R, General	1,000
Computer Machine Tool Operators	35
Chemical equipment operators	40

Source 3. Wilcher, A. (May 2019). Manufacturing Workforce in Greater Sacramento Region. Retrieved August 13, 2019.



Numerous reports note that U.S. manufacturing employers have enormous **challenges recruiting and hiring skilled workers.**



of manufacturing employers nationwide said they have **moderate or extreme difficulty** recruiting skilled workers for advanced technology operations.

### Hardest-to-fill positions in the Sacramento region in the last year

Job Title
Production workers
Manufacturing machine operators
Electrical and mechanical engineers
Field service technicians
Maintenance and repair workers
Project managers
Software developers and engineers
Bookkeeping
Business management/analysts
Sales and account reps
Forklift operators
Customer service reps
Truck drivers

COE research reveals diverse hiring needs

Reflects national trends

Manufacturing in Sacramento region =

Small businesses prominent

Diversity of businesses



The Sacramento region has a diverse manufacturing economy with companies in many types of industries including:

- 225** Commercial printers/screeners
- 190** Bakeries
- 140** Sign manufacturers
- 140** Wineries
- 130** Machine shops
- 120** Kitchen cabinet and countertop manufacturers
- 80** Dental laboratories
- 65** Breweries
- 20** Petroleum Refineries

Most manufacturing companies are **small businesses.**  
In the Sacramento region:



**50%** have < 5 employees



**94%** have < 50 employees

Source 4. Wilcher, A. (May 2019). Manufacturing Workforce in Greater Sacramento Region. Retrieved August 13, 2019.

## Labor Market Information Overview, Real Time LMI, and Skills Mapping

Research from the [Center of Excellence](#) for the California Community Colleges North/Far North Region presented data on current labor market information (LMI), including industry trends and projections in high demand occupations within the Manufacturing sector. The goal was to provide participants with a snapshot of the most relevant, current data and labor market demands across the six county region. By doing so, employers in the room were provided an opportunity to validate, inform, and enrich the quantitative data with qualitative data and insights.

### Breakout Exercise

Following the delivery of data and information, a breakout exercise took place that allowed for a content-rich dialogue amongst education, industry, and regional stakeholders. Manufacturers had the opportunity to provide insights on the top workforce skills in demand, and offer feedback on education and training programs to help identify gaps in better preparing the workforce in manufacturing. The breakouts were divided into groups to discuss skills and issues for the following key occupations: Industrial Maintenance Mechanic; Automation Technician; CNC Machining; Quality, Process, and Documentation Control; and Fabrication.

The following charts summarize the highlights of the sessions.

## Key Themes & Needs:

Fabrication	Machining
<ul style="list-style-type: none"> <li>• Welder</li> <li>- Level 1, 2, and 3 (Prep fitters (Prepares work piece for more senior/skilled welders; Knowledge of mating components)</li> <li>- Weld specialist; Weld engineering; Weld inspector (Destructive testing)</li> <li>• Other occupations (e.g. Sand blaster; Painter)</li> <li>• Metrology</li> <li>• Metallurgy</li> <li>• Programming (e.g. Nesting)</li> <li>• Material specifications</li> <li>• Weld specifications</li> <li>• Training provided by unions and colleges</li> <li>• Personal protection equipment (PPE)</li> </ul>	<ul style="list-style-type: none"> <li>• CNC Machinists (Level 1, 2, and 3)</li> <li>• Entry level</li> <li>- Basic hand tools</li> <li>- Mechanical ability</li> <li>- Machine tool handling</li> <li>- Cutter compensation</li> <li>- Editing programs on the controller</li> <li>- Feeds and speeds</li> <li>- Fixturing</li> <li>- G Code knowledge is not necessary</li> <li>• Other levels</li> <li>- 4th and 5th axis</li> <li>• Best practice</li> <li>- Own the part they are running (take responsibility to inspect and track the part)</li> <li>- Programming</li> <li>• Manual (Mills, Lathes, Drill press)</li> <li>• Deburring</li> </ul>
Quality Control	Automation
<ul style="list-style-type: none"> <li>• Quality ability assessments are needed</li> <li>• American systems for quality</li> <li>• Certified quality technician</li> <li>- Process /system analysis and thinking</li> <li>- Lean manufacturing (Process flow optimization; Understand flow diagrams)</li> <li>- Pareto charts</li> <li>- Basic computer skills</li> <li>• Inspector</li> <li>- Receiving material or part</li> <li>- Inspect part and utilize precision measurement techniques</li> <li>- Computer skills (Ability to learn new software; Use of excel to analyze the data)</li> <li>- First article inspection</li> </ul>	<ul style="list-style-type: none"> <li>• Central digital</li> <li>• Soft hands robotics</li> <li>• Use of Faro Arms in labs for precision measurements</li> <li>• Programmable logic</li> <li>- Arduino as a programming tool</li> <li>- Scata</li> <li>- Ladder logic</li> <li>- Allen Bradley / Siemens PLC controller</li> <li>• Mechanical</li> <li>- Hydraulics</li> <li>- Pneumatics</li> <li>- Lubrication</li> <li>- Belts and conveyors</li> <li>• Electronics</li> <li>- Know how to use a voltmeter to troubleshoot and debug</li> <li>- Relays</li> <li>- Motor starters</li> <li>- Sierra College has a good automation program</li> </ul>

Company Specific:

<p><b>CA League of Food Processors</b></p>	<ul style="list-style-type: none"> <li>• Willing to connect with schools</li> <li>• Start small, develop programs. It will build.</li> <li>• Contract training is attractive to members</li> <li>• Del Monte Food Company in Modesto is highly automated</li> </ul>
<p><b>FMC Technologies, Schilling Robotics</b></p>	<ul style="list-style-type: none"> <li>• Makes their own product</li> <li>• Internal growth opportunities</li> <li>• Only hires 18 years and older</li> <li>• Uses a company in Lincoln to provide welding certification with a month of training</li> <li>• Uses HAAS machines among other machines</li> <li>• For each level of welders and machinists, there are also matrices to develop and dial-in skills</li> </ul>
<p><b>Mark III Construction</b></p>	<ul style="list-style-type: none"> <li>• 500 employees in Sacramento and 100 in Fresno</li> <li>• Variety of skill sets needed</li> <li>• Emphasizes using the 5 why approach for troubleshooting</li> <li>• EPA certificate for HVAC</li> <li>• Show a clear alternate pathway</li> <li>• Uses virtual reality for training</li> </ul>
<p><b>Microform Precision</b></p>	<ul style="list-style-type: none"> <li>• Trying to systematize welders</li> <li>• Designers are mixed between fully and partially trained</li> <li>• Need knowledge for maintenance and repair on their foreign machines</li> </ul>
<p><b>Milgard</b></p>	<ul style="list-style-type: none"> <li>• Typical entry level wage is \$13.75/hr.</li> <li>• Open to providing internships</li> </ul>
<p><b>Siemens</b></p>	<ul style="list-style-type: none"> <li>• Willing to provide training because other companies may not be large enough or have the capacity to provide specific training             <ul style="list-style-type: none"> <li>- They have an internal welding program</li> </ul> </li> <li>• Currently looks to engineers for programming mindset but would like that to change</li> <li>• Mostly looking for MIG welders</li> <li>• Uses Fronius welding equipment</li> <li>• Need for welding machine repairs</li> </ul>
<p><b>Tri Tool</b></p>	<ul style="list-style-type: none"> <li>• 200 employees in Sacramento</li> <li>• Tuition reimbursement program</li> <li>• Participated in a job placement / training program</li> </ul>



## Business Support Skills Needed:

- System integration
- Understand manufacturing/product specifications
- CPA / Finance / Accounting
  - Business financing
  - Cost of goods sold
  - Cost centers
  - Inventory control
- Purchasing / Procurement
  - Capital equipment
  - Good relationship with engineering
  - Vendor relations
  - Cost analysis
  - Negotiation skills
- Sales
  - Ability to extract information
  - Technical skills (Optimally come from machine shop or experience as a machinist)
  - Typically trained organically (on-the-job)
  - Payment and terms
  - Bookings is not the same as billings
- HR
  - Job descriptions (for each level)
  - Safety (e.g. Fatigue - hot/cold)
- OSHA regulations
- APIC's
- Logistics / Planning
  - Supplier channel
  - Know how much time people spend on specific tasks
- Resource assignment
- Project management
- Process management
- Compliance management
- ERP systems
- Quality management system (e.g. ISO)

## Additional Notes:

- Other occupations of interest (e.g. assembler)
- Scenario based training is essential to gaining experience (e.g. Applied knowledge / practice is key (labs); team projects)
- Need for cross-training
  - Cross-disciplinary cooperation
  - Integrate terminology across all departments
  - Flexibility for incumbent workers to learn other skills
  - Succession planning is integration into cross-training
- Rapid prototyping
- Knowledge resources (Tooling U, YouTube, Scarcity of resources for education (lack of awareness?))
- ETP
- Apprenticeships (Clearly identify the requirements from an apprenticeship program)
- Contractors need to understand tolerances
- Companies/employees needs to understand unions and labor laws (breaks needed)
- Automotive and manufacturing have a lot of overlap (e.g. Assemblies)
- Los Rios CCD has a job postings board
- Once you start the plant, you can't shut them down
- Important that people understand the full business development process
- Lean principles (e.g. Rework accounts for 30% of work. How to eliminate upfront?)
- Need an outlet for business to business marketing
- Leverage contract education
- Makerspace creates interest and opportunity
- Companies need trained candidates with foundational knowledge. Don't have the time to teach the basics.
- Smaller companies looking for multiple skill sets like programming, machining, and quality in a single employee
- Need to recruit students through high school CTE programs and spark interest in middle school
- Students / candidates need to market their skills and experience (Better understanding of building a resume)
- Companies willing to sponsor summer programs
- Educate manufacturing companies about the skill sets community colleges can train
- Career of second choice - how to overcome? Interpretation from industry is counselors not steering high school students (women in particular) into manufacturing career opportunities
- Students need more awareness and exposure to options (Peer to peer marketing is key)
- Need for internships (Capstone projects are a good alternative; high liability costs for underage employees)
- Need an outlet for experimental programs (e.g. American River College has a drone application program)
- Companies expressed interest in stackable credentials through micro certificates (badges)
- Question the paradigm of specialization
- No companies were aware of NIMS
- Mentoring for leaders
- Advanced technologies are harder for seasoned workforce
- People who have some formal education have better communication and presentation skills
- Companies should consider donating old equipment (Industries are shifting rapidly and equipment is getting more complicated)
- Most companies use a temp agency to fill positions in general labor

## Closing Remarks

### Conclusions

The Sacramento region's manufacturing sector currently has 2,700 manufacturing companies, and 41,000 jobs in the 7-county Sacramento region.<sup>1</sup> This sector is very important to the regional economy with potential for growth.

The meetings closed after recapping from the breakout exercise with various outcomes. Some of those outcomes induced the following:

- Many of the skills needed for entry level occupations overlap
- The region has a huge opportunity to leverage the colleges as the primary training / education source for all incumbent employees
- There is an immediate need to update classroom activities so as to reflect a real-world scenario, which in turn would increase the value of college programs perceived by industry partners

Conclusively, the information learned from the breakout sessions and employer feedback leads to **apprenticeship training models** as one of the best models for the manufacturing sector. Local colleges are the regional asset best positioned to become the source for the instruction (related and supplemental) component of an apprenticeship program, while the ample number of manufacturing companies are the regional asset best positioned to host the training.

For more information on Valley Vision's work on Manufacturing and other industry sectors, visit [here](#).

*"Scenario based training is essential to gain experience and apply knowledge learned in the classroom. If the course activities already emulate real-world scenarios, then an education campaign is needed to raise the awareness of these best practices already being implemented in the classroom."*

*– Michael Bell  
DSN Advanced Manufacturing  
North Region*

# Appendix 1

## Meeting Agenda (cumulative)

SCC – Sacramento City College, Sacramento

SC – Sierra College, Rocklin

FLCSC – Folsom Lake College Satellite Center, Placerville

TIME	LOCATION	ACTIVITY
<b>7:30-8:15 AM</b>		
<b>Registration / Continental Breakfast</b>		
<b>8:00-8:15 AM</b>		
<b>Welcome &amp; Introductions</b>		
	SCC	Michael Gutierrez, President, Sacramento City College Kevin McGrew, Director of Quality Management, Siemens / President, SVMII Michael Bell, DSN Advanced Manufacturing, North Region
	SC	Amy Schulz, Dean of Business and Technology, Sierra College Michelle Stofan, Vice President, Garner Products / Treasurer SVMII Michael Bell, DSN Advanced Manufacturing, North Region
	FLCSC	John Alexander, Dean of El Dorado Center, Folsom Lake College Vicky Maryatt, Dean of Career Education Instruction, Folsom Lake College Joe Wernette, President, Tri Tool / Vice President, SVMII Michael Bell, DSN Advanced Manufacturing, North Region
<b>8:15-8:45 AM</b>		
<b>Education Program &amp; Structure Overview</b>		
	SCC	Aaron Wilcher, Director, Centers of Excellence, Sacramento Ebony Benzing, Research Manager, Centers of Excellence, Sacramento Michael Bell Kevin McGrew
	SC	Michael Bell
	FLCSC	Michael Bell
<b>8:45-8:55 AM</b>		
<b>Labor Market Information Overview, Real Time LMI, and Skills Mapping</b>		
	SCC	Aaron Wilcher, Director, Center of Excellence, Sacramento Ebony Benzing, Research Manager, Center of Excellence, Sacramento
	SC	Dean Peckham, Executive Director, SVMII
	FLCSC	Aaron Wilcher, Director, Center of Excellence, Sacramento Ebony Benzing, Research Manager, Center of Excellence, Sacramento
<b>8:55-9:10 AM</b>		
<b>Break / Networking</b>		
<b>9:10-9:25 AM</b>		
<b>Overview of Advanced Manufacturing Programs at College</b>		
	SCC	Donnetta Webb, Dean of Advanced Technology Division, SCC Jon Zeh, Chair of Mechanical Electrical Technology Department, SCC
	SC	Amy Schulz
<b>9:25-10:25 AM</b>		
<b>Industry Input / Feedback Breakout Sessions</b>		
		<ul style="list-style-type: none"> <li>•Industrial Maintenance Mechanic</li> <li>•Automation Technician</li> <li>•CNC Machining</li> <li>•Quality, Process, and Documentation Control</li> <li>•Fabrication</li> </ul>
<b>10:25-10:45 AM</b>		
<b>Report Out from Each Table</b>		
<b>10:45-11:15 AM</b>		
<b>Recap and Closing Remarks</b>		
	SCC	Michael Bell Kevin McGrew
	SC	Michael Bell Michelle Stofan
	FLCSC	Michael Bell Austin Wilkinson, Production Manager, Technip FMC (Schillings Robotics)
<b>11:15 AM</b>		
<b>Voluntary Tours at College</b>		
	SCC	MET Labs

## Appendix 2

### Manufacturing Programs in the North Region

# Manufacturing Programs in the North Region



California  
Community  
Colleges

#### COMMUNITY COLLEGES

College	Energy, Construction, Utilities	Design Engineering Technology or Support	Electronics or Mechatronics	Engineering	Machining (CNC)	Welding
American River		X	X	X		X
Cosumnes River	X	X		X		X
Folsom Lake				X		
Lake Tahoe						
Sacramento City	X	X	X	X	O	
Sierra	X	X	X	X	O	X
Woodland						X
Yuba			O	X	X	X
<b>High School (by county)</b>						
El Dorado	2	1		3	1	1
Nevada	1			2	2	1
Placer	8	6	2	11	8	6
Sacramento	8	8		23	10	3
Sutter		1		2	1	3
Yolo	2			1		1
Yuba				1		3

X = Active

O = Pending



## Appendix 3

### Participant List

The list below accounts for total participants of all four meeting and/or attendees on the day of the event(s).

First	Last	Organization
Al	Ahmadi	American River College
Ira	Ayers	SETA/Sacramento Works
Rinky	Basi	Sutter County Schools, One Stop/AJCC
Michael	Bell	CCCCO
Ebony	Benzing	Centers of Excellence
Liz	Bosley	NCCC
Tony	Brooks	TRAK Machine Tools
Tishouna	Brown	NMI Industrial Holdings, Inc.
Helen	Bui	DIR/ Apprenticeship and Workforce Innovation
John	Buonauro	Sacramento City College
Rhea	Burns	Sutter County One Stop
Alicia	Caddell	Folsom Cordova Unified School District
Trish	Caldwell	American River College
Courtney	Camp	Harris & Bruno International
Claudio	Cisneros	Folsom Lake College
Tammy	Cornelison	Golden Sierra Job Training Agency
Jon	Correa	Mark III Construction
Tammy	Cronin	Valley Vision
Peter	DeLosa	Golden Sierra High School
Sonia	Duenas	Valley Vision
Ian	Duncan	Folsom Cordova Unified / Kinney HS
John	Dunn	California Labor Agency
Morri	Elliott	Sacramento Academic & Vocational Academy (SAVA)
Bethany	Ely	SCOE
Clem	Fanning	Airpoint Precision Inc.
Kenneth	Fitzpatrick	EDT/Sacramento City College
Max	Foorman	Oak Ridge High School
Sandy	Fowler	Yuba College
Dan	Frank	Rocklin Unified
Todd	Fraze	Sierra College
Scott	Frederick	Siemens Mobility
John	Fuller	Roseville High School

First	Last	Organization
Kasey	Gardner	SCC
Richard	Gentry	Sacramento City College
Gary	George	American River College
AJ	Giersch	Natomas Unified School District
Bill	Giovannetti	EGUSD
Araceli	Gonzalez	Sutter county one stop
Ryan	Greenehagen	Basalite
Terri	Griffin	Placer County Office of Educaiton
Thomas	Hall	CleanStart Inc
Brittanie	Hancock	Yolo County Health and Human Services
Liberty	Harrison	Yuba Community College
Angela	Hatter	Charles A. Jones Career and Education Center
Rob	Haworth	Laguna Creek High School
Kate	Hay	Parallax Inc.
Annette	Henderson	Sutter County One Stop
Jennifer	Horton	Western Placer Unified School District
Beau	Huiskens	Taurus fabrication Inc.
Caron	Job	Yuba County Office of Education
Herman	Kaiser	InSight Manufacturing / SVMi
Trish	Kelly	Valley Vision
Roy	Kim	SETA
Melissa-	Kistler	EDCOE
Emma	Koefoed	Valley Vision
Akihiko	Kumagai	California State University, Sacramento
Grace	Kumetat	City of Woodland
Yassi	Lam	Glenn County Community Action Department
Jim	Laystrom	Tri Tool
Timothy	Lee	Yolo County, HHSA
Bina	Lefkovitz	Sacramento County Board of Education
Adrienne	Lent	Tri Tool Inc.
Gary	Liss	Gary Liss & Associates

Aisha	Littlejohn	Yolo County Health & Human Services Agency
Gene	Lorance	Placer high school
Ray	Loyd	Ernst & Young
Elaine	Lytle	Yolo County HHSA
Mike	MacArthur	RobbJack Corporation
Branka	Marceta	Capital Adult Education Regional Consortium, Sacramento County Office of Education
Monica	Martinez	C.K. McClatchy High School
Victoria	Maryatt	Folsom Lake College
Kevin	McGrew	Sacramento Valley Manufacturing Initiative
Patrick	McGuire	Microform Precision
Lauren	Mechals	SETA
Gabriel	Meehan	Sacramento City College
Theresa	Milan	Los Rios CCD
Ashu	Mishra	SCC West Sac Center
Miguel	Molina	Sacramento City College
Ron	Moore	Sf Metalworks
Coleen	Morehead	CLEAR Strategies
Khaim	Morton	Sacramento Metro Chamber
Tim	Moss	Lindhurst high school
Heather	Murray	Sutter Co. Supt. of Schools/Sutter Co One Stop
Benjamin	Murti	SETA
Rob	Neenan	CA League of Food Producers
Cindy	Newton	NCCC
Anthony	Osladil	Sierra College
Andy	Oushakoff	Aerojet Rocketdyne
Aaron	Palm	Oak Ridge High School
Jessica	Parsons	ShopKeeper Systems
Dean	Peckham	Sacramento Valley Manufacturing Initiative
Carol	Pepper-Kittredge	Sierra College
K. Morgan	Perry	Bear River High School
Kevin	Pharis	Pharis Metals

Christopher	Reyna	Yolo County Office of Education
Charles	Richards	DIR/ Division of Apprenticeship Standards
Jason	Roberts	Welding Department Cosumnes River College, Sacramento CA
Alice	Rush	Folsom Lake College
Sheryl	Ryder	Placer County Office of Education
Grace	Sauser	Davis Adult and Community Education
Leslie	Schlaegel	Mark III Construction
John	Schmidt	Shasta College
Amy	Schulz	Sierra College
Kristin	Scott	Marathon Staffing Solutions
Blaine	Smith	NFNR at LRCCD
Michelle	Stofan	Garner Products, Inc.
Daniel	Styer	Sacramento City College
Nolan	Sullivan	Yolo County HHSA
Sonia	Susac	TECMA, Inc.
Eric	Sweet	Robotics Evolution
Lea	Sweet	Robotics Evolution
Elizabeth	Tanner	Milgard Windows
Kim	Triplett	Pacific Coast Producers
Dan	Turner	Yuba College
Aleda	Vaughn	Sierra College
Carlos	Villarreal	Yolo County HHSA
Alan	Ware	AMW Design
Donnetta	Webb	Sacramento City College
Joe	Wernette	SVMI / Tri Tool
Cameron	Whitfield	Folsom Lake College
Eileen	Whitfield	Yolo County HHSA
Andrew	Whiting	Taurus Fabrication Inc.
Aaron	Wilcher	Center of Excellence
Austin	Wilkinson	TechnipFMC - Schilling Robotics
Leandra	Wilson	Harris & Bruno International
Jon	Zeh	Sacramento City College
Miela	Zitelli	Sacramento City College

<sup>i</sup> Advanced Manufacturing (2019). Center of Excellence. Retrieved <http://coecc.net/Search.aspx?idDetailPanel>