

Central Mother Lode Regional Consortium



Central/Mother Lode Regional Consortium Strong Workforce Program Regional Plan 2016-2018

CRC Background

The Central/Mother Lode Regional Consortium (CRC) is the regional entity working with the eight community college districts to implement Doing What Matters for Jobs & the Economy (DWM) and the new Strong Workforce Program (SWP) on behalf of the California Community Colleges Chancellor's Office (CCCCO).

The CRC serves to facilitate and promote effective regional educational initiatives for its member colleges and key stakeholders in support of local, regional, and statewide workforce development efforts. We leverage employer, community, and educational resources to create and maintain a highly skilled workforce that meets our regional needs. The goals of the Central/Mother Lode Regional Consortium are to strengthen communication, coordination, and timely decision-making in regional workforce training and education efforts, while enhancing participation in career pathways development and implementation; reinforce regional leadership and operational partnerships among community college, industry, labor, and other workforce and economic development entities to improve the delivery of Career Technical Education (CTE); align college programs with regional and industry needs; create a sustained public outreach campaign for industry, high school students, counselors, parents, faculty, staff; and the community to promote career development; and reinforce the value of career and technical education programs.

The estimated population of the CRC region is currently 4.4 million people with an additional 132,440 residents projected by 2021. Over the last five years, the CRC region grew by 4%, somewhat slower than the state's growth of 4.7%. The projected growth rate of 3% is also slower than in the previous five years and nearly matches the state's projected growth rate of 3.1%.

CRC Community College Districts & Colleges

Kern CCD

Bakersfield College

Cerro Coso College

Porterville College

Merced CCD

Merced College

San Joaquin Delta CCD

San Joaquin Delta

College

Sequoias CCD

College of the Sequoias

State Center CCD

Clovis Community

College

Fresno City College

Reedley College

West Hills CCD

West Hills Coalinga

West Hills Lemoore

West Kern CCD

Taft College

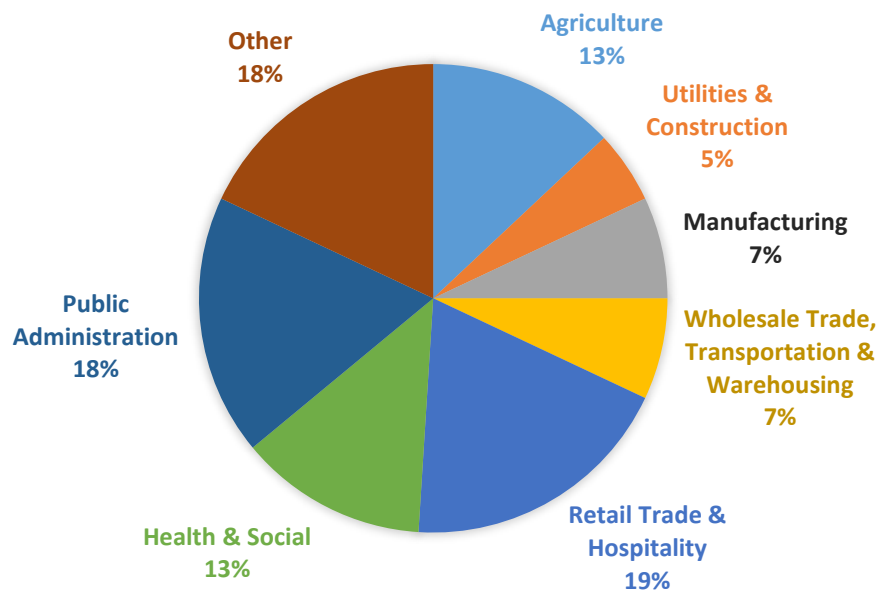
Yosemite CCD

Columbia College

Modesto Junior College

According to the Centers of Excellence, since 2011, the CRC regional labor force has increased in size by 51,960 persons, indicating an entrance of working age individuals into the workforce of 3%. Total employment increased by 177,690 persons. Because total employment increased more than the labor force, the unemployment rate decreased from 17% (compared to 11.5% statewide) to 10% in 2016 (compared to 5.2% statewide). As of April 2016, the CRC region has nearly 1.7 million jobs. This employment is distributed into eight major industrial groupings. The largest shares of employment are attributed to retail trade and hospitality (19%), public administration (18%), health care and social assistance (13%), and agriculture (13%). These are followed by manufacturing (7%), as well as wholesale trade, transportation, and warehousing (7%). The smallest shares of employment represent regional non-priority industry groups with less than 5% of the total jobs in the region. Over the next five years, the CRC region is projected to add more than 45,000 jobs within the four largest employment categories (health care and social assistance, retail, manufacturing and agriculture).

REGIONAL EMPLOYMENT DISTRIBUTION



Introduction

With the passage of the Strong Workforce Program (SWP) legislation, colleges have an opportunity to carry forward the momentum of their strategic and master plans in relationship to Career Technical Education (CTE) programs by increasing the quantity and the quality of CTE in response to labor market demand and offering more directed CTE-focused student services.

STRONG WORKFORCE PROGRAM GOALS

- **MORE** - Increase the amount of CTE instruction delivered.
- **BETTER** - Continuously improve CTE outcomes with a particular focus on completion of industry valued credentials, job placement, and wage advancement.
- **ALIGNMENT**
 - Sector strategies**: Engage with industry to align CTE programs with leading and emergent sectors.
 - Career pathways**: Align services across multiple providers to enable progressive skills development within a career pathway that has multiple entry points, and multiple exit points that each deliver labor market gains.
 - Regional partnerships**: Build partnerships of industry, labor, education, workforce and economic development entities and civic leaders to develop workforce and education policies that support economic growth.
 - Workforce Development Systems**: align efforts (CC, WDB, AEBG, K-12) to provide comprehensive regional career pathways that align with industry sectors.
- **EQUITY** - close equity gaps in program access, completion, and earnings of underserved

The CRC Steering Committee, along with regional DWM Key Talent and stakeholders, met in June 2016 to begin discussing a planning framework in response to the SWP. The primary goal of regional planning is to engage required stakeholders in discussion and assessment of regional labor market gaps and to develop strategies to address the gaps through the creation of more and better CTE.

Over the course of the next several months, more than a dozen additional meetings were convened to discuss the SWP, review data, identify gaps, and propose strategies for the use of Strong Workforce regional funds. This dialogue and assessment would inform the development of the region's formal SWP Plan and 2016-2017 40% (regional) budget, which was established by the CRC College CEOs in October 2016 and presented to the CRC Steering Committee in November 2016. In mid-January 2017, all stakeholders were invited to provide comment on the proposed plan which was subsequently approved by the CRC Steering Committee and the CRC College CEOs in advance of being submitted to the Chancellor's Office on January 31, 2017.

The purpose of this regional plan is to identify and solidify the opportunities for growth of existing CTE

programs, potential development of new programs, and regional opportunities for collaboration to capitalize on the SWP funding provided by the State of California which will better serve the communities within the Central/Mother Lode Region, as well as the micro-economies that are driven by higher education, business, and industry. The plan is a living document designed to meet the intent of the SWP which is to expand the availability of quality community college CTE and workforce development courses, programs, pathways, credentials, certificates, and degrees in response to labor market data needs. It will be annually reviewed and updated annually.

Section 1. Who Engaged and How

A. Who participated in planning meetings?

Almost 400 individuals attended thirteen planning meetings to learn about the SWP, to provide input on how to provide more CTE program options and improve the quality of existing CTE programs. Representatives from colleges, Adult Education, K-12 Education, Workforce Development Boards (WDBs), public universities and

industry gathered together for regional collaboration throughout the CRC region. Face-to-face meetings were held in Bakersfield, Clovis, Coalinga, Modesto, Rancho Mirage, and Stockton. Additional meetings were conducted via conference calls.

B. How was Planning Organized?

Annual CRC Regional Planning Conference and Meeting

The CRC Steering Committee, along with regional DWM Key Talent and stakeholders, met in June 2016 to begin discussing a planning framework in response to the SWP, and in tangent companionability with the CRC's Strategic Plan (see *Figure 1: Central/Mother Lode Regional Consortium Strategic Plan Summary 2016-17*). The meeting included a vibrant discussion and brainstorming session on strategies to create more and better CTE programs.

College CIOs

In July 2016, Key Talent and representatives of the CCCCCO provided College CIOs an overview of SWP, accountability metrics, vetted the draft local share project planning template, discussed CTE college needs, and regional planning guidance, and possible projects.

CRC Steering Committee

At the August, September and November 2016 Steering Committee meetings, committee members and stakeholders were provided with SWP updates and a summary of the input received at the All Stakeholder meetings, and then were invited to discuss and vet possible regional projects. At the November meeting, regional project proposals were identified in alignment with stakeholder feedback.

College CEOs

Prior to the Regional All-Stakeholder Meetings, the Central Valley Higher Education Consortium convened four meetings with the College CEOs on behalf of CRC in September and October, 2016. The purposes of the meetings were to provide college leadership with information regarding the SWP, outline a regional planning process, identify a SWP fiscal agent (State Center Community College District) and project funding scenarios, and to stress the need for all colleges to reach out to their respective internal and external stakeholders and regional partners.

All-Stakeholders

In September through November 2016, five Regional All-Stakeholder Meetings were held at various locations throughout the region to solicit input and establish collaborations within those micro-regions (Bakersfield, Clovis, Coalinga, Modesto, and Stockton). Stakeholders representing colleges, Adult Education, K-12 Education, WDBs, and industry were provided with labor market supply and demand data prepared by the region's Center of Excellence (COE). They reviewed 1) current DWM priority and emerging industry sectors, 2) other industry sectors identified as having potential regional labor market gaps, and 3) Strong Workforce Taskforce recommendations. They identified gaps, critical priorities, and strategies; then they were asked to participate in recorded roundtable discussions and take a survey to provide additional feedback to narrow the gaps and critical priorities identified during the discussions.

Input received from the Stakeholders is transliterated in Section 3. Broad list of strategic priorities for the region in regards to broad strategic priorities and ideas for the region.

Figure 1: Central/Mother Lode Regional Consortium Strategic Plan Summary 2016-17

I. VISION AND MISSION	
<p>Vision: The Central/Mother Lode Regional Consortium (CRC) is the premier regional collaborative that supports education and training to develop a skilled workforce in the Central/Mother Lode Region.</p> <p>Mission: The CRC facilitates and supports regional initiatives for its member colleges and key stakeholders. Through professional development, curriculum development, and collaborative communication and implementation, we collectively provide education and training to create a highly skilled workforce. The Consortium enhances workforce development in priority industry sectors by facilitating discussions and providing leadership.</p>	
II. STRATEGIC AREAS AND GOALS	
Strategic Areas	Goals (<i>One-year or Less Actionable Items</i>)
I. Communication and Leadership (Strong Workforce Recommendations: 8,9,11,13,15,16,17,19,20,21,25)	A. Consortium Communication – Internal: Implement & refine documented communication plan.
	B. Consortium Communication – External: Implement & refine documented communication practices; align external stakeholders per \$200M state guidance & create master list.
	C. CTE Regional Marketing Collateral: Finalize draft pieces, print & distribute; continue to create CTE regional marketing collateral including success stories. (Utilize any existing regional marketing materials and marketing resources from the Chancellor's office.)
	D. Leadership Development: Continue to implement leadership modules (i.e. Leadership Academy / CTE CRC 101).
	E. Website Improvement: Revise web site when funding is available. Develop an RFA and seek bids; secure funding.
II. Curriculum, Programs and Pathways (Strong Workforce Recommendations: 1,2,3,7,8,9,10,11,12,18)	A. Program Alignment: Continue to identify best practices (i.e., C6); develop summary sheets of pilot programs.
	B. Course and Program Approval: Assess multiple-college approval process (e.g. LA/OCRC; C-ID); participate in CCCCCO's "Lean Review" as available; address curriculum portability; target 100% use of COE LMI data for programs.
	C. Best Practices -- Student Outcomes: Identify and communicate best practices in program scheduling options, credit for prior experience, industry apprenticeships, career advancement academies, and program of study pathways.
	D. Skills-BUILDER Strategy: Identify/provide training for tracking; continued advocacy; continue work with Launchboard 2.0 to capture Skills-BUILDER credit.
	E. Career Pathways: Support Career Counselor Conference 2016; work with State TAPs and GIS mapping for crosswalk of grants; engage with more K-14 groups; identify best practice career pathway models for regional participation.
III. CTE Student Support Services (Strong Workforce Recommendations: 1,2,3,12,21)	A. Dedicated CTE Counselor: Identify & communicate best practices for sustainable, dedicated CTE counselor implementation at all colleges.
	B. Internship Placement: Provide regional support to achieve 100% participation of CRC colleges of Internship/Workplace Development programs.
IV. Research and Data (Strong Workforce Recommendations: 2,3,4,6)	A. Training Program: Offer trainings for colleges to address regional plan requirements and tracking; support continued Data Unlocked trainings.
	B. Internal Advocacy: Support COE efforts to document student success and equity advocacy approach; CRC needs assessment; keep colleges informed of changes; target 100% use of COE LMI data for programs endorsement applications.
	C. Resource Page: Enhance & maintain CRC web site resources and links pages.
V. Regional Plan (Strong Workforce Recommendations: all + \$200 TBL + CCCCCO Guidance)	A. Preliminaries: Selection of fiscal agent; COE/CIO meetings; internal & external stakeholder meetings; development of a working group.
	B. Planning Process: Meetings; cross walking of stakeholder plans/directives.
	C. Plan Adoption: January 31st.

Other Meetings

In addition to the meetings described above, there were numerous smaller meetings were held over the past seven months regarding the SWP. The goal of these extra meetings was to engage required stakeholders, especially faculty and industry partners, and identifying strategies to address regional gaps. Smaller working groups in the Health and Advanced Manufacturing Sectors, for example, convened with Key Talent to collaborate on the development of local and regional proposals. Smaller stakeholder group meetings were also held with representatives from the Fresno Business Council, San Joaquin Valley Manufacturing Alliance and the CRC to discuss the SWP and Advanced Manufacturing regional proposals; Key Talent and individual colleges and/or districts; Key Talent and K-12 Education; Key Talent and Adult Education; and Key Talent and WDB. Further, colleges and districts convened their own meetings to discuss how to create more and better CTE programs to meet labor market demands in collaboration with their respective stakeholders and regional partners.

C. How is the plan aligned with mandated partners?

The sector priorities and projects proposed for 2016-2017 40% funding are “informed by, aligned with, and expand upon the activities of existing workforce and education regional partnerships.” Specifically, the following sectors continue to be identified by San Joaquin Valley and Associated Counties WIOA Regional Planning Unit (RPU) (which includes Fresno, Kern-Inyo-Mono, Kings, Madera, Merced, San Joaquin, Stanislaus, Tulare county economic and workforce development boards (WDBs)) as WIOA priority sectors for high-demand living-wage jobs. Many of these WDB sectors overlap with sectors included in the CRC SWP plan:

- Agriculture, Value-added
- Construction
- Energy
- Healthcare
- Manufacturing*
- Transportation & Logistics

**Manufacturing is also a WDB Slingshot sector. The CRC DWM sector navigator will work closely with Slingshot’s dedicated regional sector navigators.*

The region’s SWP sectors and proposed projects align with pathways and strategies identified by multiple regional adult education consortia in their three year plans (2015-2018); K-12 educational pathways and initiatives, such as California Partnership Academies (CPAs), Linked Learning initiatives, and multiple local and regional California Career Pathways Trust grants (CCPT); and regional workforce and education partnerships, such as Tulare-Kings College and Career Collaborative, Central California Workforce Collaborative, Collaborative Partnership (AE), Central Valley Higher Education Consortium, California Partnership for the San Joaquin Valley, Fresno Business Council, San Joaquin Valley Manufacturing Alliance; and Central Valley AgPLUS Food and Beverage Manufacturing Consortium.

Industry sectors and occupations considered for inclusion in the regional plan align with those identified in the Draft San Joaquin Valley and Associated Counties WIOA RPU Plan and Motherlode Workforce Investment Act Local Strategic Workforce Plan, 2013-17 (see *Figure 2: Community Colleges & Workforce Boards in the Central Valley and Motherlode Regions Sectors*).

Figure 2. Community Colleges & Workforce Boards in the Central Valley and Motherlode Regions Sectors

SECTOR ALIGNMENT				
Priority Sectors - Community Colleges & Workforce Boards in the Central Valley and Motherlode Regions				
NAICS code	NAICS	Central Valley/Motherlode Regional Consortium (15 counties) (all CCCC DWM Sectors)	San Joaquin Valley and Associated Counties WIOA RPU (Fresno, Kern-Inyo-Mono, Kings, Madera, Merced, San Joaquin, Stanislaus, Tulare WDBs)	Mother Lode Job Training (Amador, Calaveras, Mariposa & Tuolumne)
11	Agriculture, Forestry, Fishing and Hunting	Agriculture, Water & Environmental Technologies*	Agriculture, Value-Added	Agriculture & Forestry
			Manufacturing/Water Technology	
21	Mining, Quarrying, and Oil and Gas Extraction			
23	Construction	Energy, Construction & Utilities*	Construction inc. Public Sector Infrastructure	
31-33	Manufacturing	Advanced Manufacturing *	Manufacturing - includes food processing	
42	Wholesale Trade	Global Trade & Logistics*	Transportation & Logistics	
48-49	Transportation and Warehousing	Advanced Transportation & Renewables	Transportation & Logistics	Trade, Transportation & Utilities*
		Retail/Hospitality/Tourism*		
		Global Trade & Logistics*		
72	Accommodation and Food Services	Retail/Hospitality/Tourism*		Leisure & Hospitality*
54	Professional, Scientific, and Technical Services	Small Business & Entrepreneurship*		Professional & Business Services*
22	Utilities	Advanced Transportation & Renewables	Energy/Green Industry	Trade, Transportation & Utilities*
		Energy (Efficiency) & Utilities*		
44-45	Retail Trade	Retail/Hospitality/Tourism*		Trade, Transportation & Utilities*
51	Information	Information & Communication Technologies (ICT)/ Digital Media*		
52	Finance and Insurance			
53	Real Estate and Rental and Leasing			
55	Management of Companies and Enterprises	Small Business & Entrepreneurship*		Professional & Business Services*

56	Administrative and Support and Waste Management and Remediation Services			
61	Educational Services			Education & Health Services*
62	Health Care and Social Assistance	Health*	Healthcare	Education and Health Services*
71	Arts, Entertainment, and Recreation	Retail/Hospitality/Tourism*		Leisure and Hospitality*
92	Public Administration			
81	Other Services (except Public Administration)			

CRC is home to four public universities – University of California, Merced; California State University, Bakersfield; California State University, Fresno and California State University, Stanislaus. Four-year public universities provide opportunities for community college students to continue along their educational and career pathways, as well as participate in the development of transferrable curriculum through C-ID approved courses of study. C-ID is a supranumbering system designed to identify comparable courses and facilitate student movement within the California community college system. It is a faculty-driven system initially developed to assign identifying designations (C-ID numbers) to transfer courses in the CSU and UC, but has since expanded into the areas of Career Technical Education (CTE) and Basic Skills.

Section 2. Data Analysis for the Region

Labor Market Overviews Summary

The Labor Market Overviews are organized into three major areas: regional population characteristics, industry employment, and occupational employment. Some of the data in the report looks at the past five-year historical trends and other data are five-year forecasts.

The population characteristics section provides a historical review and growth forecast of residential trends; a historical review of changes in the labor market (i.e. employment and unemployment); ethnicity/race forecasts; current educational attainment; and a current Hispanic/Non-Hispanic educational attainment comparison.

The industry employment section provides a current employment composition, a current distribution of employment by industry groups; and job forecasts by business type in four major sectors: healthcare and social assistance, retail, manufacturing, and agriculture.

The occupational employment section provides current job posting trends by educational level for community college applicable occupations; current wage comparisons; and demand for baseline, specialized, and software skills.

A. Demand / Supply Gap Analysis

Regional Labor Market data reports were prepared by the region's Center of Excellence. The reports were organized by occupational cluster and provided regional labor market demand data for occupations that are relevant to community college-level education and training programs. The reports also contained regional supply data for community colleges and other education and training provider programs by occupation. The regional gap analysis focused on occupations that require a typical entry-level education that can be acquired by

attending community college or occupations in which at least one-third of the current workforce holds a postsecondary award or an associate degree. The median hourly wages for the occupations analyzed were above the MIT living wage for the region of \$10.64 per hour for a single adult.

- 1) Agriculture: The agriculture industry is the second largest single industry in the Central Valley/Mother Lode Region having 222,125 jobs in 2016 with a projected growth rate of 2% over the next five years. However, all but two of the agriculture occupations were left out of the regional assessments. This was because they did not meet the established criteria. This resulted in a massive drop in the total number of jobs to only 31,246 for the entire industry and a reverse in the rate to a decline of 4%. This process also eliminated the agriculture occupational cluster from its own industry. The two largest industries in the agriculture sector from the regional assessment lens are management at 17,426 jobs with a projected 17% decline followed by office and administrative support occupations at 4,022 jobs with a projected growth rate of 2%.

Because agriculture is the primary industry in the Central Valley/Mother Lode regional economy, the data for this narrative has been reassemble in order to bring forward those occupations that are relevant to existing programs in the Central Valley/Mother Lode community colleges. This latter process resulted in the agriculture occupational cluster being the largest in agriculture representing three-quarters of the entire industry with 164,400 jobs and a projected growth rate of 4%, adding 5,975 new jobs over the five-year period. This lens also alters the agriculture industry landscape in terms of the respective sizes of other occupational clusters with management moving it to the second largest at 19,678 jobs having a reduced decline projection of 9% projected followed by transportation and moving materials at 12,613 by having a gain of 9% adding 5,037 new jobs.

Occupational analysis: The largest occupation in the agriculture cluster is farmworkers and laborers, crop, nursery and greenhouse having 138,161 jobs in 2015 with a projected growth rate of 4% adding 5,252 new jobs in the next five years. Although this occupation's typical education is not at the community college level, there are programs that meet the job training requirements for several jobs housed under this occupational title. The next three largest community college relevant occupations in the cluster are agriculture equipment operators at 8,206 jobs; graders, and sorters, agricultural products at 5,843 jobs; and First-line supervisors of farming, fishing and forestry workers at 4,471 jobs. The first two of these three occupations have projected growth rates of 10% and 3% respectively, whereas, the latter occupation indicates a negligible decline of 1%.

- 2) Energy Efficiency, Utilities and Construction: These industries combined number of jobs is 103,511 in 2016 with a projected negligible decline of 0.6% over the next five years. When the data are reduced to focus on only those community college relevant occupations, the total number of jobs drops to 53,998 and the projection reverses to a gain of 1%. The largest occupational cluster is construction and extraction with 27,188 jobs in 2015 and a projected growth rate of 1% adding 179 new jobs. This is followed by installation, maintenance and repair occupations at 7,727 jobs with a 4% gain adding 299 jobs over the next five years. The next two largest occupational clusters in this industry are office and administration and management occupations at 5,442 and 3,568 respectively, but both have projected declines.

Occupational analysis: The two largest occupations within construction and extraction are carpenters and first-line supervisors of construction trades and extraction workers, but both have decline projections. The next two largest occupations of electricians at 4,231 jobs; and plumbers, pipefitters and steamfitters at 3,278 jobs both have positive growth rate projection of 5% and 8% respectively. The largest occupation representing 60% of the jobs within the installation, maintenance and repair cluster is heating, air conditioning and refrigeration mechanics and installers at 1,956 jobs with a growth rate projection of 10% adding 191 new jobs over the five-year period.

- 3) Healthcare and Social Services: This is the third largest single industry in the Central Valley/Mother Lode Region having 207,482 jobs with a five-year gain of 15.3%, which is 2.4 percentage points greater than the national projection. The largest occupational cluster with the greatest gain projection in 2015 is healthcare practitioners and technical having 39,880 jobs and adding 5,867 more over the projected five-year period. This is followed by healthcare support occupations at 9,325 jobs and office and administrative support at 19,593 jobs. Both of these latter clusters have positive gain projections of 5,563 and 2,337 jobs respectively.

Occupational analysis: Registered nurses represent the majority of jobs (19,825) in 2015. This occupation has a gain projection of 15% over the next five years adding 3,089 new jobs. This is followed by nursing assistants and licensed vocational nurses having 10,460 and 5,236 jobs, respectively. Both of these occupations have positive gain projections with the former being 16% adding 1,725; and the latter being 15% adding 801 new jobs. Home health aides has the largest projected gain at 69% adding 1,996 jobs to its 2015 number of 2,907.

- 4) Hospitality, Tourism and Retail Trade: These combined industries represent the second largest grouping in the Central Valley/Mother Lode Region having 292,187 jobs with a five-year gain of 10.2%, which is 4.1 percentage points greater than the national projection. The largest occupational cluster is sales and related occupations having 15,539 jobs in 2015 and a gain projection of 8% adding 1,314 jobs over the next five years. Office and administrative support has 8,180 jobs and food preparation and serving related occupations has 7,876. Both have a five-year gain projection of 10% and 15%, respectively. For these industries, personal care and services occupations have a 12% gain projection adding 391 jobs to the existing 3,202.

Occupational analysis: First-line supervisors of retail sales workers is the largest single occupation having 13,058 jobs with a projected gain of 1,051 over the next five years. The next largest is first-line supervisors of food preparation and serving workers at 6,901 and a 15% gain projection adding 1,058 jobs. Customer service representatives also has a 15% gain projection adding 352 jobs. This is followed by first-line supervisors of office and administrative support workers at 2,113; and fitness trainers and aerobics instructors at 1,596 jobs. Both of these latter occupations have a 14% five-year gain projection.

- 5) ICT/Digital Media: ICT/digital media is a sector and an industry, but it also transgresses across the majority of business types and is applicable to a large number of non-ICT/digital media occupations. This latter fact is especially important for the Central Valley/Mother Lode because the industry has only a marginal existence representing only 35,398 jobs with a gain projection of 8.8%; however, ICT/digital media is prevalent and growing within all industries. The largest occupational cluster within the industry is office and administrative support with 6,089 jobs which also has the greatest gain projection of 673 new jobs in the next five years. Installation, maintenance and repair is the next largest cluster having 3,020 with the second largest gain of 331 followed by the computer and mathematical cluster having 1,900 jobs with a gain of 293 jobs over the five-year period.

Occupational analysis: The largest occupation with the greatest job gains is customer service representatives at 2,269 and a gain projection of 25% adding 562 jobs over the next five years. This is followed by telecommunications equipment installers and repairers, except line installers at 1,586 jobs and a gain projection of 260; and sales representatives, service, all others at 1,293 and a five year gain of 128 jobs. The computer user support specialist occupation has 645 jobs in 2015 with a gain projection of 17% adding 109 jobs. Under the public administration section of this report, this last occupation has 1,091 jobs with a growth rate of 10% adding 114 new jobs in the next five years.

- 6) Manufacturing: The overall manufacturing industry has 116,114 jobs in 2016 with a projected growth rate of 3.4%. However, when the industry is reassessed to include only those community college relevant jobs, the number drops to 35,256 along with the projected growth rate of 3%. Production is the largest occupational cluster in the manufacturing industry having 13,421 jobs in 2015, and a 2% projected growth rate adding 268 new jobs. Installation, maintenance and repair is the second largest group, but has the largest industry specific growth rate at 8% adding 524 jobs over the five-year period. Together, these two occupational clusters represent 56% of all jobs within the manufacturing industry.

Occupational analysis: The largest production occupation are inspectors, testers, sorters, samplers and weighers having 3,098 jobs with a projected growth rate of 2% over the five-year period. This is followed by welders, cutters, solderers and braziers having 2,176 jobs with a decline projection of 2%.. The next two largest occupations, machinists and separating, filtering, clarifying, precipitating and still machine setters, operators and tenders have 1,705 and 1,663 jobs respectively. Both of these occupations have positive growth projections with the former adding 54 jobs and the latter adding 148 jobs. The two largest occupations in the installation, maintenance and repair cluster are industrial machinery mechanics having 2,378 jobs in 2015 followed by maintenance and repair workers (general) having 1,926 jobs. Both of these occupations have job growth projections with the former adding 320 jobs and the latter adding 99 over the five-year period.

- 7) Public Administration: Public administration is the largest industry in the Central Valley/Mother Lode region having 315,882 jobs in 2016 and a projected growth rate of 7.1% between 2015 and 2020, which is 38% higher than the national projection. Protective services is the largest occupational cluster within the public administration industry having 26,499 jobs in 2015 and a projected gain of 1,716 in the next five years. The next largest cluster is office and administration having 21,698 jobs and adding 1,112. This is followed by education, training and library having 18,552 jobs and a growth rate of 9% adding 1,760. There are six additional clusters of note in the public administration industry, which are as follows:

- a. Installation, maintenance, and repair – 7,576 jobs with a gain of 538
- b. Transportation and material moving – 4,507 jobs with a gain of 424
- c. Personal care and service – 4,173 jobs with a gain of 352
- d. Computer and mathematical – 2,849 jobs with a gain of 189
- e. Construction and extraction – 2,821 jobs with a gain of 208
- f. Healthcare support – 2,763 jobs with a gain of 231

Occupational analysis: The largest occupational cluster is protective services, and computer and mathematical is the sixth largest; but the detail for these cluster will be outlined under public safety and ICT/digital media respectively in an effort to conserve on space for this industry and to minimize redundancy. The largest occupation in the office and administration cluster is secretaries and administrative assistants, except legal, medical, and executive at 6,192 jobs with a gain projection of 472 over the five-year period. This is followed by eligibility interviewers, government programs at 3,069 jobs with a gain of 120. First-line supervisors of office and administrative support workers has a growth rate of 7% adding 143 jobs to its existing 2,046 in the next five years. Teacher assistants is the largest job in the education, training, and library cluster at 15,969 with growth rate of 10% adding 1,549 jobs. Three other occupations of note are maintenance and repair workers, general at 3,398 jobs and a gain of 271; childcare workers at 2,588 jobs and a gain of 218; and bus drivers, school or special client at 2,388 and a five-year gain of 258 new jobs.

- 8) Public Safety: The only industry available in the Central Valley/Mother Lode region within the public safety sector is investigation and security services. From this lens it is the smallest industry at 6,414 jobs and a five-year growth rate gain of 2.6%. This gain is 7.2 percentage points lower than the national projection for the same industry. When the data was filtered to include only those occupational clusters that were community colleges relevant, the number of jobs dropped to 871 total jobs and a projected overall growth of 19 new jobs over the five-year period. Drilling into the public administration industry data reveals that the protective services occupational cluster is the largest at 26,499 jobs in that industry; therefore, the data in the public administration industry section that is public safety applicable is sufficient for a public safety occupational analysis.

Occupational analysis: Under the public administration industry, the protective services cluster is the largest at 26,499 with a growth rate projection of 6% adding 1,716 new jobs over the five-year period. The largest occupation is correctional officers and jailers at 12,085 jobs and a gain of 572 new jobs. The next largest occupation is police and sheriff's patrol officers at 6,449 with a growth rate of 9% adding 559 jobs. This is followed by firefighters at 3,706 jobs with a growth rate of 8% adding 296 in the next five years.

- 9) Small Business: A small business is technically a business type that transgresses every sector and industry, and represents the largest number of enterprises in the United States and California. Small businesses generally have 50 or fewer employees with the smallest and most common form of enterprise being a sole proprietorship. Small businesses tend to be more prevalent in service and support industries and occupations; therefore, 16 industries of these types were identified for inclusion in this analysis. These industries represent 129,865 jobs in 2016 and have a gain projection of 3%, which is less than half of the national percentage for the same set. The largest occupational cluster is personal care and services having 20,753 jobs, but it has a declining projection of 5%, which is a reduction of 1,054 jobs over the next five years. Office and administrative support is the second largest cluster at 10,208 with a gain projection of 3% adding 350 jobs. The following three are installation, maintenance and repair at 2,539; healthcare support at 1,468; and production at 1,437 jobs. Each of these three occupational clusters have gain projections of roughly 160 jobs.

Occupational analysis: Drilling into the occupations data reveals that childcare workers is the largest occupation having 11,092 jobs with a 17% decline projection, which is a reduction of 1,836 jobs. The next largest personal care and services occupation is hairdressers, hairstylists and cosmetologists at 6,091, which has a 9% gain projection adding 538 jobs. This is followed by manicurists, and pedicurists at 1,877 jobs with a decline projection of 9% over the five-year period. For the healthcare support cluster, the largest occupation is massage therapists at 954 jobs with a 15% gain projection adding 140 jobs.

- 10) Wholesale trade, Transportation and Warehousing: These industries represent 114,817 jobs in 2016 and have a five-year gain projection of 12.3%. The largest cluster with the greatest gain projection among these industries is the transportation and material cluster having 25,664 jobs in 2015 and adding 3,076 jobs over the five-year period. This is followed by office and administrative support at 9,325 jobs; and sales and related occupations at 9,098 jobs. Both of these latter clusters have positive gain projections of 1,157 and 1,202 jobs respectively. Installation, maintenance and repair is also a large cluster within these industries having 6,367 jobs and a gain projection of 10% adding 617 jobs over the next five years.

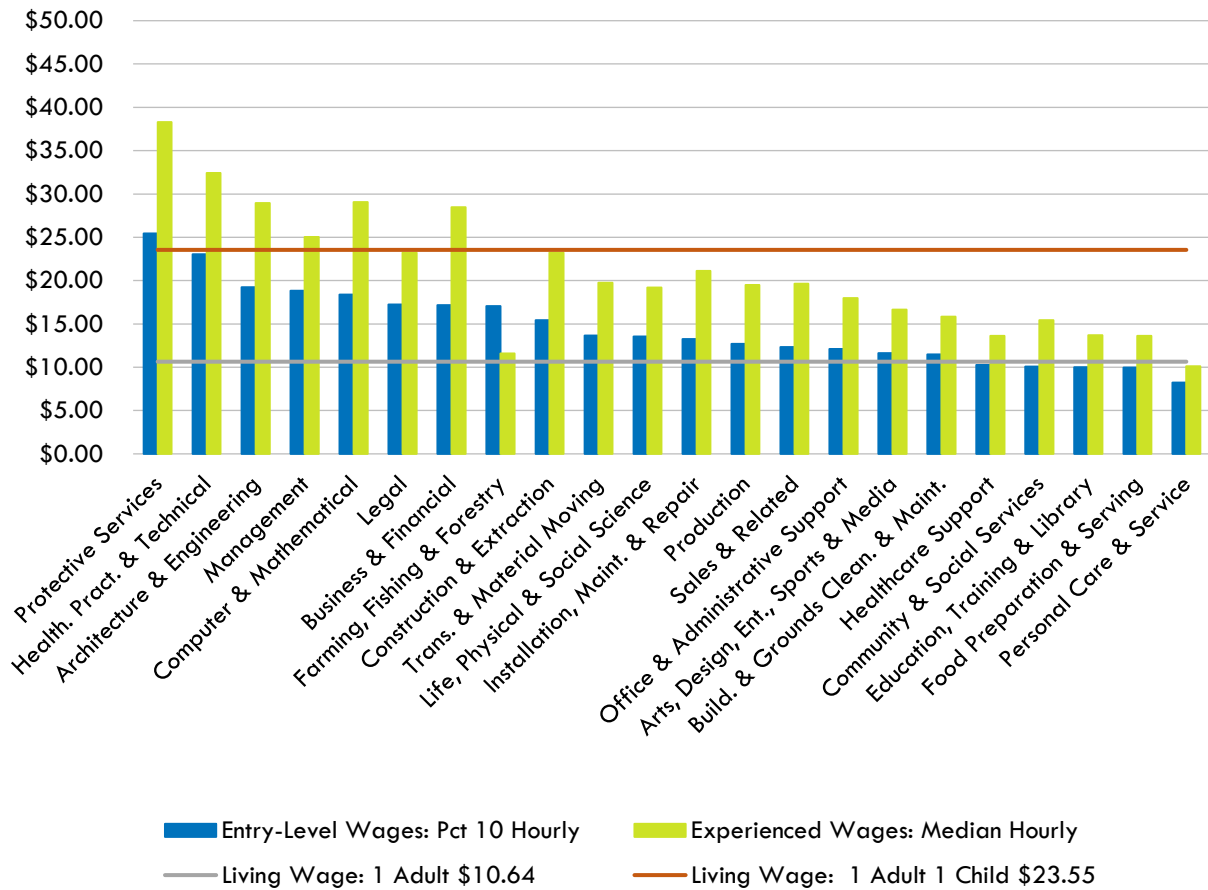
Occupational analysis: Heavy and tractor-trailer truck drivers represents the majority of jobs having 21,579 in 2015. This occupation also has the largest gain projection adding 2,607 new jobs. This is followed by sales representatives, wholesale and manufacturing, except technical and scientific products at 6,365 jobs and a 16% gain projection adding 989 over the five-year period. Customer service representatives has a 19% gain projection adding 308 jobs; and first-line supervisors of transportation and material-moving machine and vehicle operators has a 14% gain projection adding 152 jobs.

B. Demand/Supply Gap Analysis (*Regional Labor Market data reports prepared by the CRC's Center of Excellence*)

Exhibit 1: Five-year Projected Employment by Major Group (2015-2020)

Employment by Major Group (Number of occupations in group in parenthesis)	2015 Jobs	5-Yr Job Change	5-Yr % Change	Annual Replacements	Annual Job Openings	Median Wages
Healthcare Practitioners and Technical Occupations (24)	53,952	7,489	14%	1,266	2,764	\$32.42
Healthcare Support (13)	36,603	6,705	18%	909	2,250	\$13.64
Office and Administrative Support (29)	112,824	6,075	5%	1,932	3,376	\$17.99
Transportation and Material Moving (22)	41,337	4,217	10%	818	1,714	\$19.76
Installation, Maintenance, and Repair (44)	57,652	4,155	7%	1,513	2,395	\$21.12
Sales and Related (11)	48,863	3,186	7%	1,122	1,873	\$19.64
Protective Service (14)	27,225	1,798	7%	838	1,197	\$38.31
Education, Training, and Library (3)	23,349	1,572	7%	674	989	\$13.70
Food Preparation and Serving Related (3)	9,246	1,328	14%	287	552	\$13.63
Community and Social Services (2)	6,486	1,114	17%	142	365	\$15.42
Business and Finance (14)	23,681	884	4%	1,001	782	\$28.47
Production (36)	22,909	873	4%	690	957	\$19.48
Computer and Mathematical (6)	8,821	805	9%	127	288	\$29.07
Arts, Design, Entertainment, Sports, and Media (32)	11,035	577	5%	315	451	\$16.66
Construction and Extraction (21)	32,306	492	2%	635	922	\$23.24
Personal Care and Service (14)	32,720	347	1%	636	1,259	\$10.13
Life, Physical, and Social Science (9)	4,182	195	5%	173	222	\$19.19
Architecture & Engineering (13)	4,917	143	3%	120	154	\$28.97
Farming, Fishing, and Forestry (1)	4,776	125	3%	113	138	\$17.07
Building and Grounds Cleaning and Maintenance (2)	2,879	105	4%	69	90	\$15.85
Legal (4)	3,367	104	3%	75	108	\$23.21
Management (12)	34,028	(1,225)	-4%	281	836	\$25.04
Total, All Selected Occupations	599,452	40,763	7%	15,396	23,549	\$21.21

Exhibit 2. Comparison of Entry-Level and Experienced Wages with Living Wages by Occupational Group



**Exhibit 3: Average Annual Awards Conferred
by Postsecondary Institutions in Programs Related to Each Occupation Group**

Major Occupation Groups	2012-15 Average Annual Totals					Skill Builders Median Wage Gain %
	CC	CC	CC	CC	Non-CC Awards	
	Headcount	Associate Degrees	Awards	Non Credit		
Management	17,871	897	225	5	243	11.1%
Business and Financial Operations	17,799	949	143	5	351	24.8%
Computer and Mathematical	15,615	104	140	0	230	31.9%
Architecture and Engineering	6,866	105	277	37	209	57.5%
Life, Physical, and Social Science	7,910	100	89	0	30	59.4%
Community and Social Service	7,233	144	142	0	-	49.2%
Legal	549	27	42	0	102	4.4%
Education, Training, and Library	17,811	349	1,050	0	20	22.3%
Arts, Design, Entertainment, Sports, and Media	8,193	61	78	0	10	20.4%
Healthcare Practitioners and Technical	17,322	1,179	555	0	1,348	37.0%
Healthcare Support	7,058	203	504	0	4,072	22.7%
Protective Service	19,675	536	322	0	519	7.2%
Food Preparation and Serving Related	9,207	61	113	0	308	55.2%
Building and Grounds Cleaning and Maintenance	842	16	20	0	-	n/a
Personal Care and Service	18,368	361	1,055	0	1,420	22.1%
Sales and Related	1,670	31	28	0	-	-18.7%
Office and Administrative Support	17,593	287	376	21	879	5.2%
Construction and Extraction	1,160	9	37	0	366	57.9%
Installation, Maintenance, and Repair	6,434	135	640	37	797	58.3%
Production	8,595	73	380	47	127	52.3%
Transportation and Material Moving	13	0	0	5		n/a
Farming, Fishing, and Forestry	924	8	12	0		38.8%

C. Asset Map

1) Major Initiatives Already Underway

A preliminary assessment of major initiatives related to education, jobs and the economy are identified below in *Figure 3: Major Initiatives Already Underway*. This is not an exhaustive list and will be edited to include additional initiatives, as applicable.

Figure 3: Major Initiatives Already Underway

Regional Networks and Initiatives *	K - Adult	Community Colleges	University	Community	Employers
Adult Ed	G, N	G, N		X	X
CCPT (Leads: Kern, West Hills, Yosemite CCDs; Tulare COE; Visalia, Fresno, Clovis, Tehachapi USDs; Wonderful)	X, G	G, N	X	X	X
California Partnership for the San Joaquin Valley	X	X	X,G,I	X	X
CTE Innovation	G, N				
Cradle to Career	I, X	X	X	X	X
Central Valley AgPLUS Food and Beverage Manufacturing Consortium		X	X,G	X	X
Central Valley Higher Education Consortium (CVHEC)		X	N		
Doing What Matters (DWM)	X	I		X	X
DWM: 8 Priority /Emerging Sectors		G			X
DWM: Regional Consortium		G, N			
DWM: SB1070	X	G		X	X
Fresno Business Council	X	X	X	X	N, X
Governor's Innovation Award (GIA)	X	X	G, N	X	
Linked Learning	G, N	X	X		
Perkins	G	G			
Perkins: CTE Transitions	X	G			
Prop 39	N	G			N
San Joaquin Valley Manufacturing Alliance	X	X	X	X	N, X
Central Valley Slingshot (Surrounding Valley & Surrounding Counties WDBs)	X	G, N	X	X	X
Tulare-Kings College and Career Collaborative	X, G, N	X, N	N	N	N
X=Partners; G = Grant; I = Initiative; N = Network/Workshop; * not an exhaustive list					

2) Summary of Local Share Investments by Sector

As of January 14, 2017, region's community colleges have not completed and submitted their local share plans. Once they have done so (not later than January 31, 2017), the regional plan will be updated to include a summary of all local investments by sector.

Section 3. Broad List of Strategic Priorities for the Region

As discussed in Section 1, Regional All-Stakeholder meetings and additional, smaller focused meetings were organized to solicit input and establish collaborations. Stakeholders reviewed and discussed 1) current DWM priority and emerging industry sectors, 2) other industry sectors identified as having potential regional labor market gaps, and 3) Strong Workforce Taskforce recommendations. The stakeholders identified gaps, critical priorities, and strategies; and then were asked to participate in recorded roundtable discussions and a survey to provide additional feedback to narrow the gaps and critical priorities identified during the discussions. The input received provides the basis of the responses to A-D below, as well as the Stakeholder Poll Results identified in Figures 4-7.

A. Sectors: Are priority and emergent sectors still the same for the region?

The eight priority and emerging industry sectors initially identified for the region as part of the Doing What Matters (DWM) efforts, plus the two additional DWM industry sectors were focused on during the regional planning process. The 10 sectors are identified below. For the first annual allocation of regional funds, the region remains committed to the priority and emergent sectors identified as part of our ongoing DWM efforts, as well as additional sectors that are in alignment with economic priorities of the region:

CENTRAL VALLEY

PRIORITY INDUSTRIES:

- Advanced Manufacturing
- Agriculture
- Health
- Retail, Hospitality and Tourism
- Small Business and Entrepreneurship

EMERGING INDUSTRIES:

- Energy, Construction and Utilities
- Global Trade and Logistics (logistics/supply chain)

MOTHER LODGE

PRIORITY INDUSTRIES:

- Retail, Hospitality and Tourism
- Small Business and Entrepreneurship
- Information and Communication Technologies (ICT)/ Digital Media

EMERGING INDUSTRIES:

- Health
- Advance Manufacturing

Other DWM Industry Sectors:

- Life Sciences/Biotech
- Advanced Transportation & Renewables

The regional input identified additional sectors that were in alignment with economic priorities of the region and/or its sub-regions:

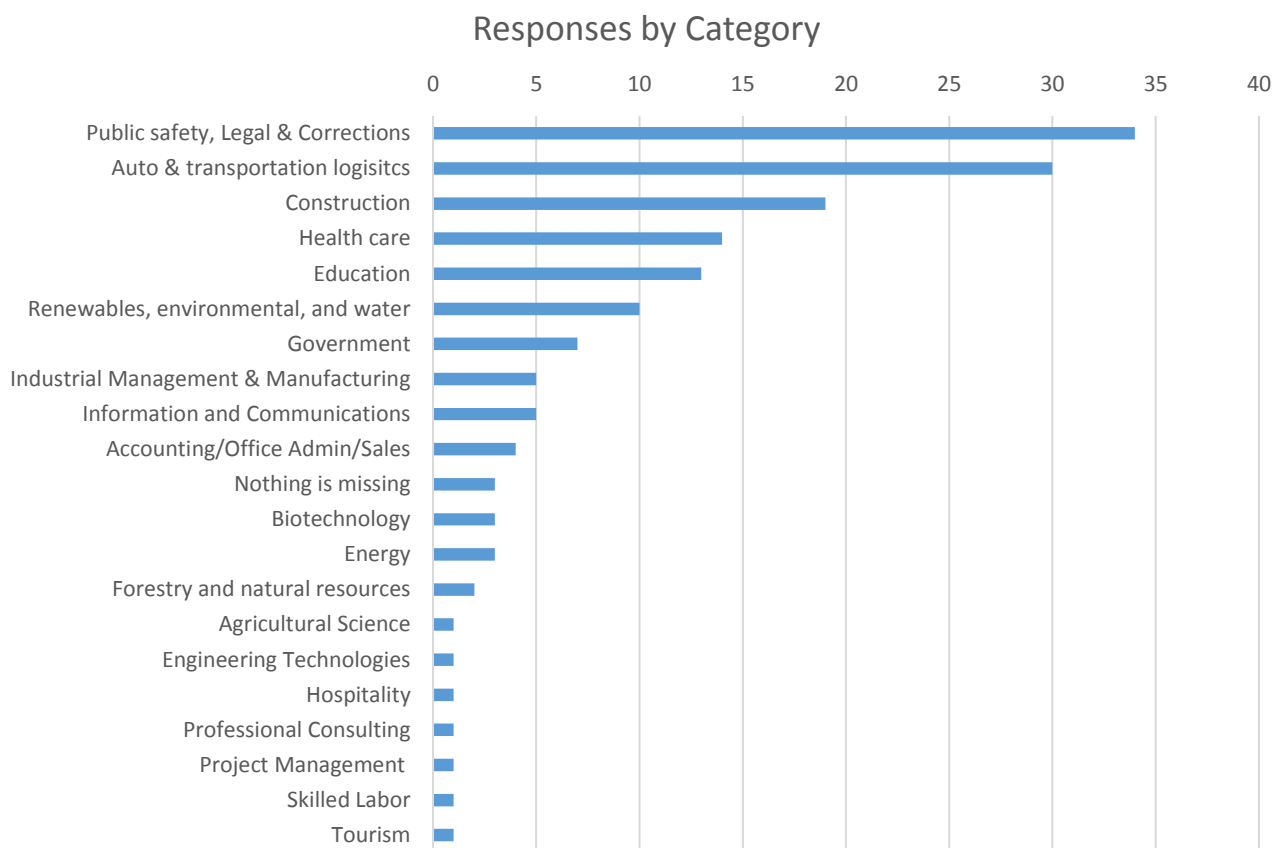
- Protective Services
- Public Administration
- Construction
- Warehousing
- Sales
- Automation Technicians

Additional input reflected that the sectors seemed accurate compared to what is in the region. However, it was observed that the sector data did not include many small businesses or individual entrepreneurs and “gig” employment. Further, categorization of certain jobs, for example agricultural sales, were not included in the overall Ag Sector report. Many tech jobs are not well understood and would be especially prone to mis-categorization. Also refer to *Figure 4: Stakeholder Poll Result – Are there Priority Sectors that you feel are missing or feel have high employment potential?*

Figure 4: Stakeholder Poll Result – Are there Priority Sectors that you feel are missing or feel have high employment potential?

The CRC Priority Sectors & Emerging Sectors are: *Advanced Manufacturing; *Agriculture, Water & Environmental Technologies; *Health; *ICT/Digital Media; *Retail/Hospitality/Tourism; *Small Business; *Energy (Efficiency) & Utilities (Prop 39); and *Global Trade & Logistics.

Are there Priority Sectors that you feel are missing or feel have high employment potential?



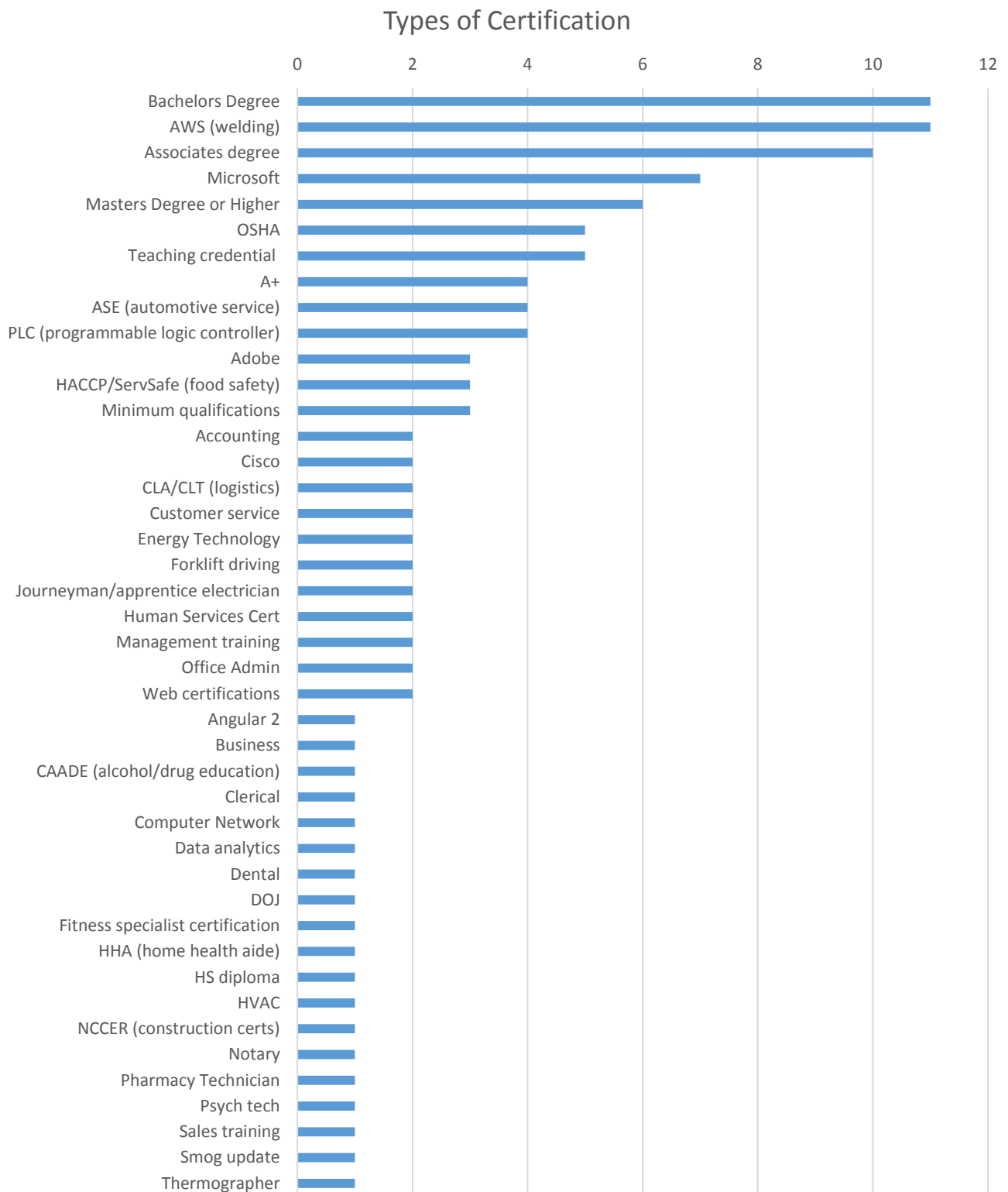
B. Pathways: What more must be done for students to move through the region's career pathways in the sectors?

To help better prepare students for career pathways, following needed efforts were identified:

- More opportunities to infuse soft skills/life skills within curricula to help students as they move from CTE classes into real world employment.
- More opportunities for job shadowing, apprenticeships, and internships as a way to facilitate students entering the workforce upon graduation.
- Identify and promote opportunities for increased dual enrollment and articulation.
- Identify and promote opportunities for program entry points/open enrollment.
- Identify more CTE embedded English and math offerings.
- Identify and promote opportunities for more career fairs (especially for the healthcare sector).

- Enhanced communication between schools, especially high school counselors directing students to those programs who would be a good fit.
- Classrooms at business locations.
- Identify opportunities for engaging employers with a long term job opening having multiple students work as interns, with the understanding that one of them would be hired at the end of the term based on job performance.
- Identify commonalities (i.e., programs that align) for simplified credit transfer/student mobility.
- Identify better alignment of industry-needed/desired certifications, and connecting students with certification with hiring employers.
- Identify shared strategies to ensure that the following specific career pathways are prioritized and every asset is leveraged with minimal duplication (i.e. welders, cutters, welder fitters, production workers, machinists, maintenance mechanics, electricians, journeyman electricians and electrical engineers).
- Develop a shared understanding across educational levels and industry sectors of what a pathway map includes and how it will be applied.
- Identify and promote opportunities for linked case management across colleges, Adult Education, K-12 Education, WDBs, and industry.
- Improved marketing of pathways by industry sector/CTE program to students, parents, and employers; increased outreach to students.
- Identify ways to link Adult Education ESL learners and GED completer to career pathways and subsequent linkage to prospective employers.

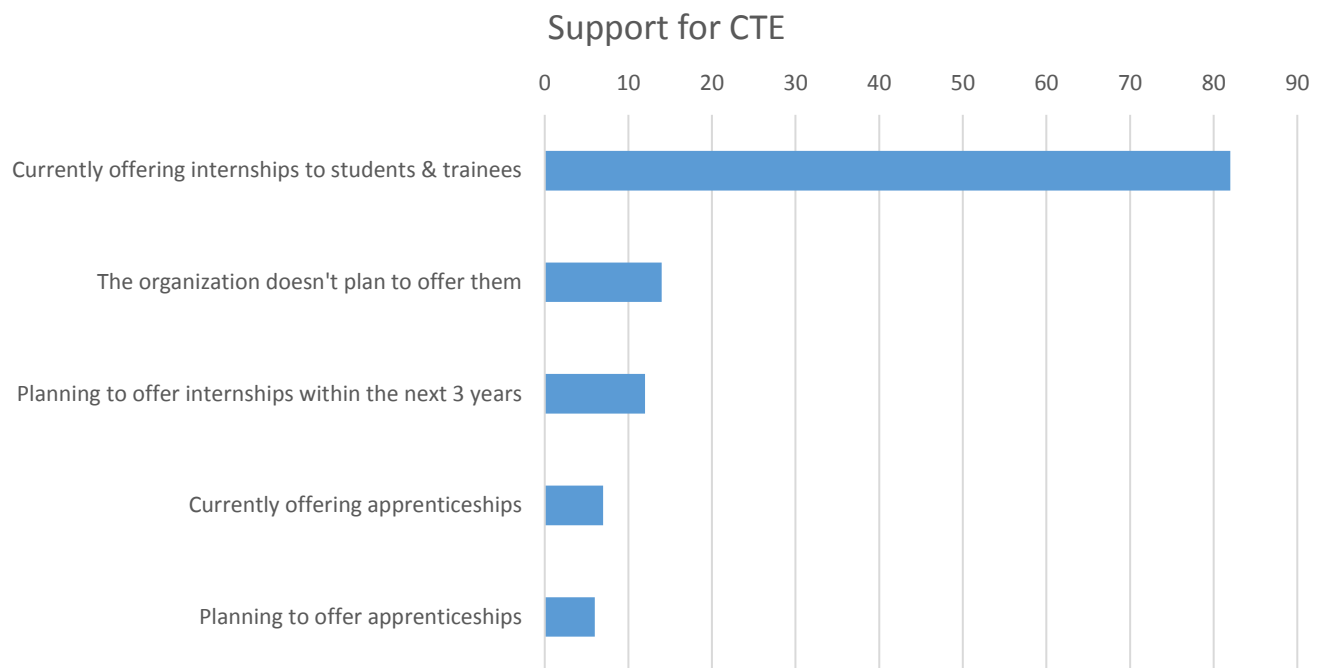
Figure 5: Stakeholder Poll Result – What types of Certifications are Required Prior to Employment at Your Organization?



C. Work-Based Learning: How will job placement, internships, and regional industry engagement be coordinated?

Included in the regional plan are projects that promote work-based learning approaches. Specifically, the CTE Workplace/Internship Development project builds upon best practices identified in the U.S. Department of Labor’s grant-funded Central California Community Colleges Committed to Change (C6) program, and, more recently the CTE Enhancement Fund programs. This project will provide a collaborative regional approach to job development and placement for students within the region. The intent is to provide students and employers with a seamless point of contact, coordinate requests, and work with Job Developers to place CTE students in internships, apprenticeships, and/or employment. Several regional colleges have also been awarded grants to expand apprenticeships within the region. See *Figure 6: Stakeholder Poll Result – How Does Your Organization Support Career Technical Education?*; and side-bar article on *What is Apprenticeship?* (see page 22) for more information on industry engagement.

Figure 6: Stakeholder Poll Result – How Does Your Organization Support Career Technical Education?



WHAT IS APPRENTICESHIP

by Dan Sousa, SCCCD Apprenticeship Coordinator

The word apprenticeship is derived from the Old French *Apprentiz* meaning someone learning and the Anglican suffix *ship*, meaning state, condition of being. Therefore, an apprenticeship is when someone is in a state, or condition, of learning. Usually this learning is from a journeyman or master of the trade who is working with the apprentice. Also known as the other 4 year degree, apprenticeship is a proven method of developing a qualified workforce. Receiving a paycheck while being trained in a high-skill occupation that has a very respectable salary is a fantastic option for those not interested in pursuing a 4 year college degree. And for those apprentices enrolled in a California Registered Apprenticeship Program, tuition costs are usually waived. With the escalating costs of college tuition, the apprenticeship model becomes even more attractive.

BENEFITS TO EMPLOYERS

- Reduced employee turnover- Develop future employees when you create a positive training environment. Training to the employers standards on equipment used in-house leads to higher retention rates.
- Increased productivity- Apprentices are a worthwhile investment of your time. Employers who encourage registered apprenticeship typically report higher productivity & retention rates.
- Industry recognized credentials- Upon completion of a 3-4 year apprenticeship, a State of California and/or Department of Labor journeyman card is issued.

BENEFITS TO EMPLOYEE

- Earn while you learn- combined classroom and on-the-job training enhance the skill set of each employee.
- Community college connection- Select course pathways lead to college certificates. If continuing education is desired, an A.S. or A.A. degree can be pursued as well.
- Industry recognized credentials- Upon completion of a 3-4 year apprenticeship, a State of California and/or Department of Labor journeyman card is issued.
- Part of a structured pathway- All Registered Apprenticeship Programs are structured with specific on-the-job work processes (outcomes) for the entire apprenticeship term. Combining classroom instruction with on-the-job tasks increases the skill set level, thus, providing a pathway to higher wages.

STATE CENTER COMMUNITY COLLEGE DISTRICT APPRENTICESHIP

State Center CCD is a Local Educational Agency (LEA) for various trades and disciplines in the Fresno/Madera region. All Registered Apprenticeship Programs in the State of California must have an LEA. An LEA is defined by California Education Code as a school district or a county office of education responsible for oversight and reporting of Related Supplemental Instruction (RSI) hours. RSI is the classroom instruction component of apprenticeship and can happen at the program sponsors facility or at any of the State Center college campuses. In addition to being the LEA, classroom instruction is occurring on many of the districts campuses. Currently, machinist, maintenance mechanic, welding, and automotive technology programs classroom instruction are hosted at Fresno City College and Madera Community College Center campuses. Clovis Community College will soon be providing classroom instruction for the newly created Food Safety Apprenticeship Program. Other community partners State Center CCD is the LEA for, such as the Roofing and Laborers Unions manage the classroom instruction at their facility. In FY 2013-14 there were 2,339 hours of instruction reported. In the 2016-17 AY over 10,000 hours of instruction will be reported. The growth in apprenticeship is partly due to California Apprenticeship Initiative (CAI) grants received from the California Community College Chancellors Office. State Center CCD received funding from three separate CAI grant applications, two in New and Innovative Apprenticeships and one in Pre-Apprenticeship. The funding from the Reedley College/Madera Community College Center application allowed for the expansion of the Manufacturing Technology Program and the hiring of a new full-time instructor. The expansion, along with the incentive of the New and Innovative grant, will result in more apprenticeship classroom instruction in Advanced Manufacturing. Clovis Community College will begin classroom instruction for their 13 new apprentices in Food Safety in spring 2017. Its objectives are to prepare participants for careers in food safety and help alleviate the lack of properly trained people for the food processing industry.

Apprenticeship once again is a popular concept. It's always been a part of the building trades' success, but now more and more employers in sectors like manufacturing have realized it may be the answer to their workforce needs. In terms of workforce skills gap, apprenticeship may be the answer many in the manufacturing sector have been seeking.

D. Industry Engagement: How can industry inform and co-invest in CTE development?

Regional input strongly advocated for the creation of more formal partnerships between specific industry groups and educational partners (K-14). These partnerships will facilitate internships, job shadowing, and work-based learning.

Stakeholders identified the need to engage and promote within industries, particularly hospitals or others in the healthcare sector, to provide public-private partnerships for equipment donations or equipment loans, as well as consider paying for cohorts in specific, highly needed fields that have vacancies.

To help CTE students be better prepared for the workplace and have realistic expectations, colleges are being encouraged to identify more opportunities for employers to meet directly with students (i.e. work place learning such as guest speakers, mock interviews, career fairs, employer tours).

Also identified was the need to encourage industry partners to take a more active role in developing and revising CTE curricula. Generally, stakeholders saw a need for more and better communication between colleges and industry, and particularly a need for industry to provide more input that will be heeded and implemented by the colleges.

CTE faculty are vital to the success of a student and their respective programs. Throughout the SWP, it will be important to identify and promote opportunities for full-time CTE faculty to stay current with industry innovations, as well the need to provide externships and professional development for faculty to stay current with industry. The CRC will support the colleges in providing information and resources towards these efforts.

There was also consensus for the need for more conferences and meetings that bring employers and educators together. It is also necessary to build a better understanding of medium and small sized employer needs as it pertains to work-based learning and internships.

More robust industry engagement in regional SWP planning will be a priority as the region updates future regional plans, including reaching out to regional and local Chambers of Commerce and professional human resource organizations (i.e. SHRM).

E. Other Initiatives

Below is a list of regional initiatives with goals that overlap those of the Strong Workforce Program. Each of these project leads/projects directors was involved in the regional SWP planning. The region will continue to engage with these initiatives to leverage resources and expand regional capacity to do “more” and “better” CTE.

In the San Joaquin Valley effective Industry Clusters are Vital

With few exceptions, most companies in the San Joaquin Valley are small and midsize. They generally do not have the internal resources to effectively advocate for their industry nor participate in a range of CTE opportunities. By forming a cohesive industry cluster, companies can support one another and learn about the most effective approaches to partnerships.

To build a collaborative and supportive CTE eco-system, it is critical for both industry and education administrators and faculty to be active participants and supporters of the clusters. High-functioning clusters will build a vibrant learning community in which new ideas are incubated and aggregated, and new jobs are created. Most importantly they will help in building a strong collaborative and synergetic relationship amongst various economic and workforce development stakeholders and the broader community.

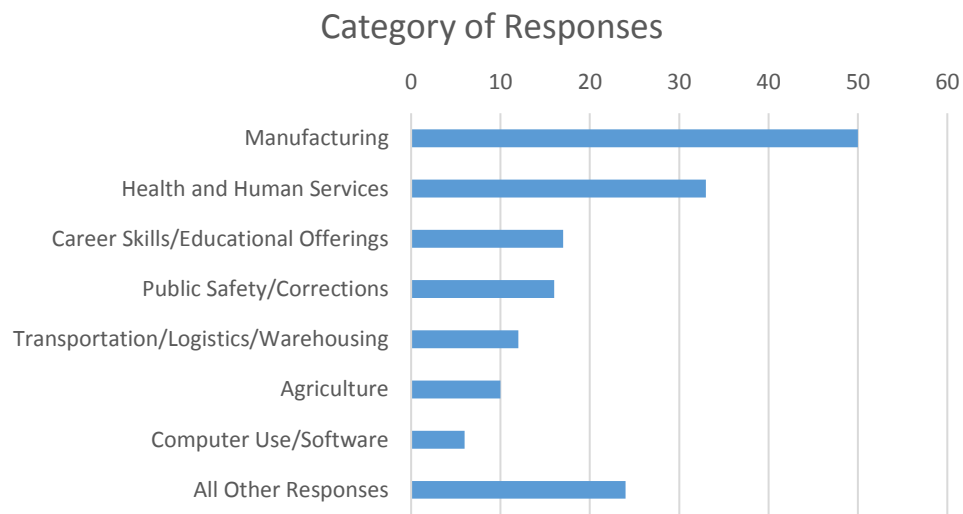
*- Mike Betts & Deborah Nankivell
Fresno Business Council
San Joaquin Valley Manufacturing Alliance*

- California Career Pathways Trust (CCPT) – 9 regional
- California Partnership for the San Joaquin Valley Regional Industry Clusters Initiative
- Central Valley AgPLUS Food and Beverage Manufacturing Consortium
- Central Valley Community Foundation (CVCF) (formally the Fresno Regional Foundation)
- Central Valley Goal 2025: Lumina Foundation, Central Valley Higher Education Consortium (CVHEC)
- CVHEC: Complete College America, College Futures Foundation, California Acceleration Project
- Central Valley/Mother Lode Region AEGB Super Consortia
- Cradle to Career
- Economic and Workforce Development (EWD) Doing What Matters
- Employment Training Panel (ETP) - 3 colleges (RCCD, SBCCD, Chaffey)
- Fresno Business Council
- Global Cities Initiative, Financial Institutions - JP Morgan Chase
- Linked Learning
- San Joaquin Valley Manufacturing Alliance
- Slingshot Initiative
- The James Irvine Foundation, various
- Various California Community College Chancellor's Office EWD Grants

Section 4: Project Proposals

As of January 14, 2017, the region's community colleges have not completed and submitted their regional share plans. Once they have done so (not later than January 31, 2017), the regional plan will be updated to include a summary of all regional investments by sector. Preliminarily, broad and in response to stakeholder input, the following regional proposals are projects of potential and follow *Figure 7: Stakeholder Poll Result – What is your recommendation for a new and/or expanded program?*

Figure 7: Stakeholder Poll Result – What is your recommendation for a new and/or expanded program?



A. Regional Proposals

1) Sectors (*broad proposal ideas*)

ADVANCED MANUFACTURING

Industrial Automation Technician/Technologist/Bachelor of Science Industrial Automation Collaborative

Cost: \$300,000*

Number of colleges participating: 4*

Development of a regional collaborative group to align and articulate the lower division electronics courses required for admission to the Bachelor of Science degree in Industrial Automation at Bakersfield College. The group will meet regularly via conference calls and participate together in the Industrial Automation Advisory Committee meetings for the baccalaureate degree.

*The total cost for this project and the number of colleges participating is still being determined.

AGRICULTURE, WATER & ENVIRONMENTAL TECHNOLOGIES

Precision Ag & Irrigation Technology

Cost: \$400,000*

Number of colleges participating: 2*

Revitalize Agriculture Technology certificate. Create a course curriculum in Precision Agriculture and Irrigation Technology. Develop a Precision Agriculture and Irrigation Technology laboratory. Agriculture is a major economic force in the San Joaquin Valley. Increasing water use efficiency helps ensure a sustainable agro-economic region that supports employment and fiscal stability for those regions. Precision agriculture practices increase crop yields, reduce waste, and improve overall efficiency across all crop areas.

Current Labor Market Information indicates demand grossly outweighs supply in the region. Completing this proposal promises to increase the number of graduates in impacted programs, directly translating to increased numbers of qualified employees. This project will increase and improve educational offerings in Precision Agriculture and Irrigation Technology across multiple San Joaquin Valley colleges. Additionally, appropriate laboratory equipment will enhance relevancy and improve learning by anchoring concepts and content. The development of a workforce educated in agricultural efficiency methods directly and indirectly raises expectations, capacity, and capability across all agricultural areas.

*The total cost for this project and the number of colleges participating is still being determined.

Diesel Truck Technician

Cost: \$310,000*

Number of colleges participating: 3*

Create and/or strengthen programs to train entry level diesel truck technicians. These programs will include a certificate of completion and an associate of science degree with mandatory work place learning/work experience in cooperation with local industry partners. Local industry partners such as truck dealerships, independent repair facilities and trucking companies have identified a shortage of entry level diesel truck technicians. Existing Agriculture Mechanics programs in the Central Region have historically focused on off-highway equipment technicians but will now create a pathway for on-highway diesel trucks technicians so the programs can focus on both areas. This proposal will create/strengthen new pathways in existing Agriculture Mechanics programs in the Central Region. Community Colleges along with industry partners will identify skill sets that are required for entry level diesel truck technician that are not currently taught in existing programs. New skill sets such as Suspension and Steering, Brake Systems and other topics will be developed into new courses or infused into existing classes.

*The total cost for this project and the number of colleges participating is still being determined.

ENERGY, CONSTRUCTION & UTILITIES

HVAC

Cost: \$300,000*

Number of colleges participating: *

This proposal addresses the labor shortage for qualified HVAC technicians for the residential and commercial industry in the NFNR. Industry and LMI data indicate there is a strong need to train HVAC technicians.

*The total cost for this project and the number of colleges participating is still being determined.

HEALTH

Nurse Recruitment

Cost: \$350,000*

Number of colleges participating: 4-10*

- Development of a regional marketing plan for recruitment
- Purchasing the BRNs RN list for direct mailing of our recruitment materials
- Outreach to CSUs MSN programs for increased awareness of nursing education opportunities
- Nurse Educators Training Program – online with mentorships

The nursing faculty shortage is now critical with almost every college in the Central/Mother Lode Region with open positions (some with more than one position open for full-time faculty).

*The total cost for this project and the number of colleges participating is still being determined.

Health Simulation

Cost: *

Number of colleges participating: 8*

Development of a simulation users network group with a primary focus on development of simulations that can be shared with participating colleges and within the region. The group will meet monthly to share best practices and strategies for student success.

*The total cost for this project and the number of colleges participating is still being determined.

ICT/DIGITAL MEDIA

ICT/NetLab Collaborative

Cost: *

Number of colleges participating: 14*

NetLab Hub is a virtual lab system for colleges within the region. Partnering colleges will have anytime access to the NetLab Hub which will enable students to gain more experience in the content areas by being able to practice more and at flexible times. Includes professional development and the sharing of ICT resources to strengthen program offerings. The purpose of this project is to continue regional efforts on developing online and face-to-face CTE certificate programs for colleges in the areas of Cybersecurity, Networking, and Programming. Certificates of Achievement (COA) are in the approval pipeline and Netlabs has already been implemented at colleges throughout the region with more partnerships being developed.

*The total cost for this project and the number of colleges participating is still being determined.

2) Across All Sectors (*broad proposal ideas*)

AEBG Workforce Training Partnership

Cost: \$375,000*

Number of colleges participating: *

A partnership with West Kern Adult Education Network (WKAEN) to develop a collaborative approach to workforce skill-building. Drivers include: A focus on understanding and meeting the needs within West Kern District as much as possible, and creating a measurable, operational plan for access.

Outcomes:

A. Strong Workforce data to capture

1. Employment successes
2. Career advancement

B. Certification, GED, completions

C. Academic outcomes for students who go on to further education.

*The total cost for this project and the number of colleges participating is still being determined.

CTE Regional Branding and Marketing

Cost: \$200,000

Number of colleges participating: 3

Develop and execute a cohesive, professional branding and marketing of CTE programs and opportunities offered by the State Center Community College District colleges and centers. The project will target prospective students, employers, and community organizations. This proposal will result in enhanced involvement of all regional and local stakeholders – businesses and their representatives, workforce and economic development agencies, government, educational organizations, non-profits, and STUDENTS. Connecting these stakeholders to the CTE programs and services at the colleges and centers will add to the potential for lasting impact. A truly effective campaign will also build on the longstanding efforts of others in the region, ensuring effective and efficient use of funds. A marketing campaign will benefit current and future students, increasing both enrollment and eventual employment for students and helping employers find the skilled employees they need. Alignment of this project with the broader branding and marketing efforts currently underway by the CCCC is also important and will provide an opportunity to leverage the resources of both, leading to high efficiency and effectiveness.

District Workforce and Adult Education Dean

Cost: \$491,000

Number of colleges participating: 3*

SCCCD, on behalf of its three colleges and three centers, proposes to use SWP funds to hire a district dean of workforce and adult education. Working in tandem with staff and faculty across the district, the district dean will lead and coordinate efforts to ensure the effective delivery of relevant workforce preparation, economic development and training programs across the SCCC service region. A district dean can serve in this capacity while coordinating district efforts with those of the colleges and centers. District-wide articulation of the career technical education programs among the district's colleges and centers will be increased and improved, as well as with secondary and other post-secondary institutions. A position at the district level will be able to establish and maintain working linkages and partnerships with industry, secondary education, and community agencies and organizations at the regional and state levels pertaining to the district-wide efforts in all sectors.

Dual Enrollment/Student Services/ Prison Education

Cost: \$195,500*

Number of colleges participating: 2*

Enhance the CTE Dual Enrollment offering/sections and opportunities to different high schools in our region.

*The total cost for this project and the number of colleges participating is still being determined.

Workforce Apprenticeship Training Coordinator

Cost: \$468,000

Number of colleges participating: 3

Support and develop pre-apprenticeship and apprenticeship coordinator position and office that will provide leadership of and coordination to apprenticeship providers and district colleges. An identified and knowledgeable coordinator can connect apprenticeship opportunities to college training programs. At the same time, a coordinator can help unions and employers connect to the colleges and provide students with the opportunity to secure sustainable wage jobs. A knowledgeable coordinator who is connected to the community for which the district serves can be that one voice that links employers with the colleges programs. A pre-apprenticeship/apprenticeship coordinator will establish partnerships with community-based organizations, district colleges, and adult education providers resulting in pre-apprenticeship training opportunities for unemployed, high-risk, high-need student populations. Completion of the pre-apprenticeship program makes students eligible for apprenticeship programs and opens the door to high-wage, long-term jobs. Additionally, establishing apprenticeship program partnerships enables employers to increase the skill level of their incumbent workers. The complexity of these processes, procedures, and regulations requires a knowledgeable single-point of contact for employers, union building trades, community-based organizations, and Single Employer programs to be the required Local Educational Agency (LEA).

Workplace/ Internship Development

Cost: \$3,000,000*

Number of colleges participating: 13*

The Workplace Internship Development Regional Project will focus on students attending community college, with a goal of earning a certificate or associate degree aimed at technical training, with a desire to enter directly into the workforce upon successful completion of their CTE program. Each Workplace Internship Development partnering college would put in place a center that will provide services to assist in internship/job placement that is an integral part of the colleges Career Center or like office. The focus of this office is to provide an opportunity for each CTE program completer to put the skill sets they have developed, to work in a “real world” application. Additionally, the interns will be provided exposure to the culture of the work place that can’t be reproduced in a classroom environment. Interns will be exposed to the culture and etiquette of a “real world” job, and a chance to apply the training they have received in their college program. They will gain experience in establishing relationships with work place mentors and receive the “field experience” that is so valued by employers. Providing a pathway to internships is a natural progression to the success of all CTE students; communities of practice; possible opportunity for regional software program purchase.

*The total cost for this project and the number of colleges participating is still being determined.

See next page for an example of this project and best practices in a side-bar article written by Amber Nelson on behalf of CA Forward (January 6, 2017; [HTTP://CAECONOMY.ORG/REPORTING/ENTRY/CALIFORNIA-COLLEGE-CREATES-CAREER-CENTER-DEDICATED-TO-HELPING-CTE-STUDENTS](http://CAECONOMY.ORG/REPORTING/ENTRY/CALIFORNIA-COLLEGE-CREATES-CAREER-CENTER-DEDICATED-TO-HELPING-CTE-STUDENTS)).

College creates career center dedicated to helping career technical education students



Student Jose Perez benefited from Merced College career center tailored to needs of CTE students (Photo Credit: Merced College)

A broken-down car or unreliable childcare can make the difference between completing a certificate program and getting a good job or continuing the cycle of struggle familiar to the hundreds of students pursuing Career Technical Education (CTE) at community colleges across the state. Merced College has designed a new support system specifically to assist these aspiring students in completing their coursework and transitioning from school to employment. The Workplace Internship Network (WIN) at Merced College provides personalized CTE completion counseling and connects students to internships that help launch their careers.

"The majority of students we see are first generation college students," said James Andersen, Merced dean of instruction for Agriculture, Industrial Technology and Kinesiology, and one of the architects of WIN. With hundreds of CTE students at Merced, Andersen recognized how significantly their needs differed from those who are studying to transfer to a four-year university. "We get so many students that come from families that are struggling to make ends meet, and they can earn a good salary if they have marketable skillsets," Andersen said. But first, they have to complete training and find work. Many of his students confront very basic challenges like securing transportation to class, getting childcare while they attend school or figuring out how to write a resume or participate in a job interview. Searching for a solution, Andersen met about two years ago with leaders from the community colleges in his geographic area to discuss the needs of these particular students and how best to help them succeed. Leadership from College of the Sequoias, Porterville College, San Joaquin Delta, Taft College, WHCC Lemoore, WHCC Coalinga, and Modesto Junior College shared best practices and collaborative strategies to support the success of CTE students.

Together, the collaborative group determined that a career center separate from the more traditional transfer center could provide the pathway these students need. The group continues to meet quarterly as each school ramps up the program at their own pace, based on their individual student populations and resources. Funding for the career centers comes, in part, from the CTE Enhancement Funds and further support will come from the Strong Workforce Program.

The Strong Workforce Program is a statewide initiative that utilizes California's community colleges as essential training partners in providing skilled workers to fill workforce gaps and support economic recovery at the local, regional and state levels. Back at Merced College, Autumn Gardia is the face of the WIN program. She meets with local industry partners to evaluate their entry-level employee needs and confers with them on how best to onboard the college program completers. She also regularly visits the classrooms and labs of CTE students to let them know she's available to help them manage their success in school and transition to work. Another key player in the Career Center at Merced College is imbedded CTE Counselor Araceli Gonzalez. She works closely with Gardia to meet the counseling needs of CTE students and watch for any issues that can negatively impact student success. When students have a friendly face like Gonzales to turn to in times of need, they are more likely to ask for help rather than giving up.

"I looked at my family and how we have struggled due to a lack of education," said Merced student Jose Perez, a beneficiary of the new WIN office. Perez's program, Mechanized Agriculture Technology, is one of the nine career training programs that are currently aligned with the WIN program. The others are Nursing, Diesel Equipment Technology, Welding, Computer-Aided Drafting, Computer Networking, Automotive, Industrial Electric Technical, and Industrial Maintenance. In addition to locating post-certificate internship experiences, the program is also working to shorten completion times for certificates so that students can find employment more quickly. The Welding certification, for example, is now available as an 18-week program instead of a three- or four-semester program. When Perez completed his certificates in Compact Power Equipment, Diesel Technology, and Mechanized Agriculture, he didn't have to take the next step of finding a job alone. Through the WIN office he was connected to a 90-day paid internship at Foster Farms. Perez didn't just gain valuable work experience and earn a check using the skills he learned at Merced. "The internship helped me to build confidence," Perez said.

Perez would have been hard-pressed to find an internship like this on his own. It's the relationships Merced is building with companies like Foster Farms, Gallo, Dole, Morning Star and Laird that pave the way to real world work and success for students like Perez. "I want to make a change for my future," said Perez. The vision of leaders like Andersen and his collaborators, in conjunction with funding from Strong Workforce Program, are ensuring that students like Perez have the tools and support they need to meet California's workforce requirements.

B. Projects In-Common/10% Regional Set-Aside

The CCCCCO has suggested that for a number of the Strong Workforce Recommendations, there is economy of scale to do “projects in-common” across all regions. Existing pilots have informed effective practices for addressing these recommendations. According to the Strong Workforce Program flowchart, 10% of Regional share allocation can be deployed for Task Force recommendations with attention to: 1) region-wide outreach to employers on CTE by sector for purposes of internship/job placements; 2) region-wide outreach to students/families on career awareness/CTE options; 3) additional data-related needs; and, 4) professional development to streamline curriculum approval. Given the focus for these funds, regions are asked to strongly consider applying the 10% set-aside to scale “projects in-common”.

The CCCCCO “projects in-common” include 1) Curriculum Streamlining; 2) Outreach to Parents, Students & Employers; 3) Employability/Soft Skills; 4) Early Career Exploration; 5) Regional STEM/STEAM Teacher Pipeline. They are projects that have been piloted across the state; and as they have been effectively piloted, they pose an increased chance for success, and reduced risk. Although these projects are not mandated, the CCCCCO highly encourages their replication and scaling at some point during the SWP.

Outreach to Parents & Students, Workforces Development Partners, and Industry &Employers - CTE Rebranding: Regional Marketing and Outreach

Cost: up to \$700,000

Number of colleges participating: 14

For the first SWP allocation, College CEOs and the CRC Steering Committee have prioritized a Regional Marketing and Outreach project for the majority of the 10% set-aside.

The project will develop a multi-media, multi-pronged approach to marketing CTE programs regionally and will leverage regional efforts with statewide “projects in common” efforts related to branding and outreach to students and to employers. The statewide branding and outreach effort is already underway.

The regional consortium will convene a marketing committee with regional representation to develop a Request-for-Proposal. Depending on the scope of the campaign, it might be divided into phases.

In regards to the CCCCCO, they will be investing \$3M if the regions statewide can match \$3M toward a CTE Rebranding effort. The region’s match would go toward customizing the outreach: 1) specific to the region’s sectors and employer partners/voices; and, 2) specific to the ground-game needed in each region to get in front of underserved students/families so they better understand their higher education options. The CCCCCO has retained the services of renowned Public Relations firm Ogilvy to do an environmental scan and set a path forward on how the \$3M of state funds will be deployed. The CCCCCO feels it is important to keep consistency in the look and feel for how an outreach campaign is deployed lest we undermine its effectiveness and continue to confuse employers/students.

It is anticipated the RFP will be issued in late 2017. The successful contractor will be expected to coordinate with the CCCCCO’s re branding efforts, as well as with individual CTE marketing efforts at CRC districts and colleges.

Other Projects in Common

Cost: up to \$78,000, plus unexpended funds targeted for **Regional Marketing and Outreach**

Number of colleges participating: 14

The CRC Steering Committee has tentatively prioritized the following projects, in order, as funding allows:

STEM/STEAM Teacher Pipeline, Employability/Soft Skills (New World of Work is a 21st Century Skills Program), and **Early Career Exploration** (Get Focused/Stay Focused). A description of each of those program is as follows:

- **Scale Regional STEM/STEAM Teacher Pipeline:** To remedy the statewide teacher shortage and to bring more diversity into the STEM/STEAM teaching pipeline, every region needs to produce a fair share of this workforce need. The STEM/STEAM Teacher Preparation Pipeline has sought to align Career and Technical Education curriculum and student support services as a way to establish pipelines for students interested in teaching in today's STEM/STEAM fields. During the 2014-2015 school year, the TPP campuses came together and created a state-wide collaborative. This collaborative focuses on the continuing development of a model of quality teacher preparation that includes career exploration, contextualized learning opportunities, teacher recruitment and retention, and the development of a quality teacher preparation model of collaboration that is currently shared regionally, statewide and beyond.

West Hill College Lemoore is one of ten Teacher Preparation Pipeline (TPP) community colleges in California. The TPP was established in 2006 by the California Community Colleges Chancellor's Office to address the statewide shortage of teachers. The goal of the program is to provide additional support to those individuals that desire to enter the teaching field. The program supports community college students and industry professionals obtain the education, experience, and credentials needed to become a teacher. Ten California Community Colleges have joined together with businesses and workforce development partners to encourage and support our future teachers. The focus of the program is Science, Technology, Engineering and Mathematics (STEM) fields as well as Career and Technical Education (CTE) such as welding, automotive, electronics, HVAC and many others. The CRC will work with WH Lemoore to support efforts to expand this program.

- **Employability/Soft Skills:** The New World of Work is a 21st Century Skills Program that emphasizes curricular and employability skills and is quickly raising the workforce preparation of students in our system. Thirteen community colleges have piloted the New World of Work with positive outcomes and results. The New World of Work is currently funded by the California Community College Chancellor's Office Doing What Matters initiative and collaborates with employers, workforce development boards, educators, and research organizations across the country to build 21st Century Employability Skills. A series of webinars is being offered to K-12, Chief Student Services Officers, CTE Deans, counselors, instructional faculty, and student services professionals throughout our system to raise awareness levels of a suite of tools that will benefit student completion efforts.
- **Early Career Exploration:** The Get Focused/Stay Focused curriculum has been effectively tested in high schools by several community colleges in all seven regions in the state for use with over 80,000 secondary level students. Who am I? What do I want? How do I get it? – These are three questions that are keys to student success, and three questions that should be answered before selecting a guided pathway. Career Choices and Changes, and My10yearPlan help students answer these questions while facilitating a planning process that:
 - Matches pathway selection to future student goals
 - Results in informed decision making regarding a course of study
 - Development of a skills-based education plan
 - Leads to a 10-year Plan focused on successful completion and workforce entry

Section 5. Agreed Upon Outcomes / Metrics

Per the Strong Workforce Program legislation, performance accountability measures shall “to the extent possible, align with the performance accountability measures of the federal Workforce Innovation and Opportunity Act (Public Law 113-128). Outcome measures shall include, to the extent possible, demographic data, to allow policymakers and the general public to evaluate progress in closing equity gaps in program access and completion, and earnings of underserved demographic groups.... Recommendations for future allocations to consortiums [should be] based upon program outcomes, including, at a minimum, the number of certificates granted to, and wage increases of, students who have completed a career technical education program.”

For both Local and Regional projects, funding must increase quantity and/or improve quality of CTE through strategies which may include expanding enrollment in an existing CTE program, improving the quality of existing CTE programs, or creating new CTE programs. Strong Workforce Program metric(s) must show improvement by choosing the pertinent outcomes based on the following multiple measures which include: a. Completion; b. Transfer; c. Employment rates; d. Employment in field of study; e. Earnings; f. Median change in earnings; and g. Proportion of students who attained living. Additional metrics may be added upon review and through future edits of the regional plan.

Strong Workforce Program Metrics are disaggregated by race, gender, and age grouping, and are available in the LaunchBoard. The metrics are as follows:

Strong Workforce Program Metrics	
Program size	
• Enrollments	
Completion	
• Students who earn a degree or certificate	
• Students who transfer to a four-year institution	
Employment	
• Employment rate at the second and fourth fiscal quarters after students exit the California community college system	
• Proportion of exiters in a job closely related to their field of study	
Earnings	
• Earnings in the second fiscal quarter after students exit the California community college system	
• Percent change in earnings	
• Proportion of students who attained the regional living wage	

Section 6. Agreements about Future Engagement

Representatives from colleges, Adult Education, K-12 Education, WDBs, and industry contributed to this regional planning process. Existing collaborative, regional relationships were strengthened and new relationships were created. This plan does not mark the end of those connections, but a beginning as stakeholders work together more thoughtfully to align and leverage plans and priorities.

More robust industry engagement in regional SWP planning will be a priority as the consortium updates future regional plans, including outreach to regional and local Chambers of Commerce and professional organizations such as those targeting human resources (i.e. SHRM), as well as greater engagement with advisory committees.

Updates and opportunities for continued input will be offered at CRC Steering Committee meetings. In addition, sector-specific workgroups will be encouraged to identify industry opportunities and to develop proposal recommendations for subsequent fiscal year SWP allocations.

Annually, at the CRC Regional Planning Conference and Meeting, regional SWP planning will be on the agenda to outline the planning framework for the next fiscal year, as well as discuss plan updates. The Annual CRC Regional Planning Conference and Meeting is open to all stakeholders.

Additional meetings will also be held as needed and will be posted in the CRC monthly e-newsletter and on the CRC website (<http://crconsortium.com/>).

A. Process for Annual Update & New Plan Every Four Years

As suggested above, annual planning for plan update and new plans will begin at the Annual CRC Regional Planning Conference and Meeting which is generally held at the end of the spring semester in June. A framework for meetings will be proposed at the conference and amended according to feedback received.

It is the intention of the CRC to allow for ample opportunities for input for future updates and the quadrennial report.

Further, at CRC Steering Committees meetings and additionally scheduled meetings, as necessary, the region will:

- Evaluate regional investments and outcomes and use what is learned to inform the next round of investments
- Identify best practices to be applied to future proposals
- Report outcomes
- Assess SWP Metric attainment
- Verify that the percent of FTES that is CTE meets or exceeds the percent in the baseline year 2015-16
- Identify and disseminate what is working locally to inform the next cycle
- Identify barriers/opportunities best addressed at the State level and recommend to Chancellor's Office