



# ECONOMIC AND WORKFORCE DEVELOPMENT PROGRAM ANNUAL REPORT

**2016**

CALIFORNIA COMMUNITY COLLEGES CHANCELLOR'S OFFICE  
Brice W. Harris, Chancellor

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March 1, 2016

The Honorable Edmund G. Brown, Jr.  
Governor of California  
State Capitol  
Sacramento, CA 95814

Dear Governor Brown:

I would like to present the California Community Colleges Economic and Workforce Development Program Annual Report for 2014-15.

The Economic and Workforce Development program invests in the skills of California's workforce. Furthermore, it brings together members of the business community and academia throughout the state to create job opportunities for Californians.

This report highlights our efforts in helping to build workforce development programs in the state and discusses California's seven macroeconomic regions through the 10 important economic sectors or industries we have targeted for investment.

If you have any questions regarding this annual report, please contact Economic and Workforce Development Division Vice Chancellor Van Ton-Quinlivan at 916-327-5492 or [vtquinlivan@cccco.edu](mailto:vtquinlivan@cccco.edu).

Thank you for your interest in the Economic and Workforce Development program.

Sincerely,

A handwritten signature in blue ink that reads "Brice W. Harris".

Brice W. Harris  
Chancellor



# ECONOMIC AND WORKFORCE DEVELOPMENT PROGRAM ANNUAL REPORT

## EXECUTIVE SUMMARY

The California Community Colleges, through the Economic and Workforce Development Program (EWD), continue to propel the California economy forward by providing students with skills to earn well-paying jobs. At the same time, EWD helps provide California companies with the talent they need to compete on a global scale.

Within the Doing What Matters for Jobs and the Economy (DWM) framework, EWD bolsters community colleges working within and across economic regions as they:

- partner closely with businesses and other organizations;
- train students through contract education, as well as credit and non-credit instruction for the in-demand skills employers require;
- provide these students with career pathways and stackable credentials;
- promote student success and improve program completion;
- build the skills of current employees; and,
- get Californians into open jobs providing a living wage.

The DWM strategy of increasing outreach to employers within regions and priority industry sectors has contributed to continuing momentum in EWD's program, student and employer outcomes.

During 2014-2015, the contributions and efforts of EWD programs were:

- 48,027 students served
- 19,626 employees served
- 59,879 total people trained\*
- 2,456 students enrolled in work-based learning (i.e., internships and apprenticeships)
- 24,639 completions of workshops and training
- 1,105 students placed in jobs
- 9,850 employees retaining jobs
- 11,364 businesses served
- 1,628 people hired by businesses served by EWD
- 19 new products and services created by businesses across California with the support of EWD services

\* Number reflects as of December, 2015

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In 2014-2015, EWD awarded \$22.9 million to initiatives to fund 93 grants statewide, compared to \$22.8 million in 2013-2014. These initiatives strengthened regional collaboration, supported alignment between career technical programs at the community colleges and the needs of industry sectors. At the same time, the EWD program developed a system to track and evaluate programs through data driven analysis. Ten industry sectors received priority based on current and emerging labor market needs and opportunities to prepare students to compete in a global economy. Sector navigators (awarded \$3.8 million in funding), who are experts within each respective industry, fostered collaborative partnerships within each of the 10 priority industry sectors and the California Community Colleges at a statewide level. Deputy sector navigators (awarded \$13.4 million in funding) improved contacts between businesses and community colleges in each of the seven macroeconomic regions in order to enhance alignment between career pathways and employer needs.

Industry-driven regional collaboratives (awarded \$3.2 million in funding) built networks of regional public, private and other community-based organizations to support the California community colleges' efforts to meet regional industries' training and education needs. Centers of Excellence (awarded \$1.1 million in funding) provided expert consultation on occupational and economic trends and supported data collection. Capacity Building, Training and Support Technical Assistance Providers (awarded \$1.3 million in funding) provided



expertise in various areas of specialization. EWD continued to develop LaunchBoard, a statewide accountability dashboard that collects and shares identified outcome metrics such as wage gain, employment in the field of study and attainment of industry or state certifications.

To implement changes in federal law, the California Workforce Development Board (CWDB)—the state’s lead workforce development policy agency-- approved the creation of the Workforce Innovation and Opportunity Act (WIOA) Implementation Work Group in September 2014. Over the next 12 months, this work group—co-chaired by California Community Colleges Vice Chancellor Van Ton-Quinlivan and CWDB Executive Director Tim Rainey-- ensured that California’s implementation of the new law reflected state strategies and aligned resources accordingly. The group’s efforts included developing multi-agency metrics, developing policy, improving systems alignment and regional collaboration, and determining any needed governance changes. Regions drive most of this work, but the state also has key roles to play. These include working with the regions to forge a shared vision, as well as coordinating the activities of state institutions to support that vision and removing barriers to implementation.

In conclusion, EWD’s strategic initiatives have built new networks of regional collaboration between colleges and businesses, within and across regional economies and industry sectors, with measurable benefits to both students and employers.

## BACKGROUND

### Economic and Workforce Development Program

The California Community College’s Economic and Workforce Development Program (EWD) advances the economic growth and global competitiveness of California and its regional economies by providing education, training and other services that contribute to continuous workforce improvement, technology deployment and business development.

In 2012, California law reauthorized EWD until January 1, 2018. The intent of the program was to:

- Maintain its core mission to advance California’s economic growth and global competitiveness.
- Strengthen linkages between EWD programs and other State workforce and economic development systems and programs in order to train and educate

a highly skilled workforce for the mutual benefit of industry and students.

- Support the regional alignment between the career technical education programs of the community college system and the needs of California’s competitive and emerging industry sectors.
- Ensure that EWD programs are being developed, tracked, and evaluated based on data-driven analyses and common metrics.

To achieve these goals, EWD provides grant funding to help community colleges become more responsive to the needs of employers, employees and students. Grantees funded by EWD assist community colleges in collaborating with other public institutions in an effort to align resources, foster cooperation across workforce education and service delivery systems, and build well-articulated career pathways.

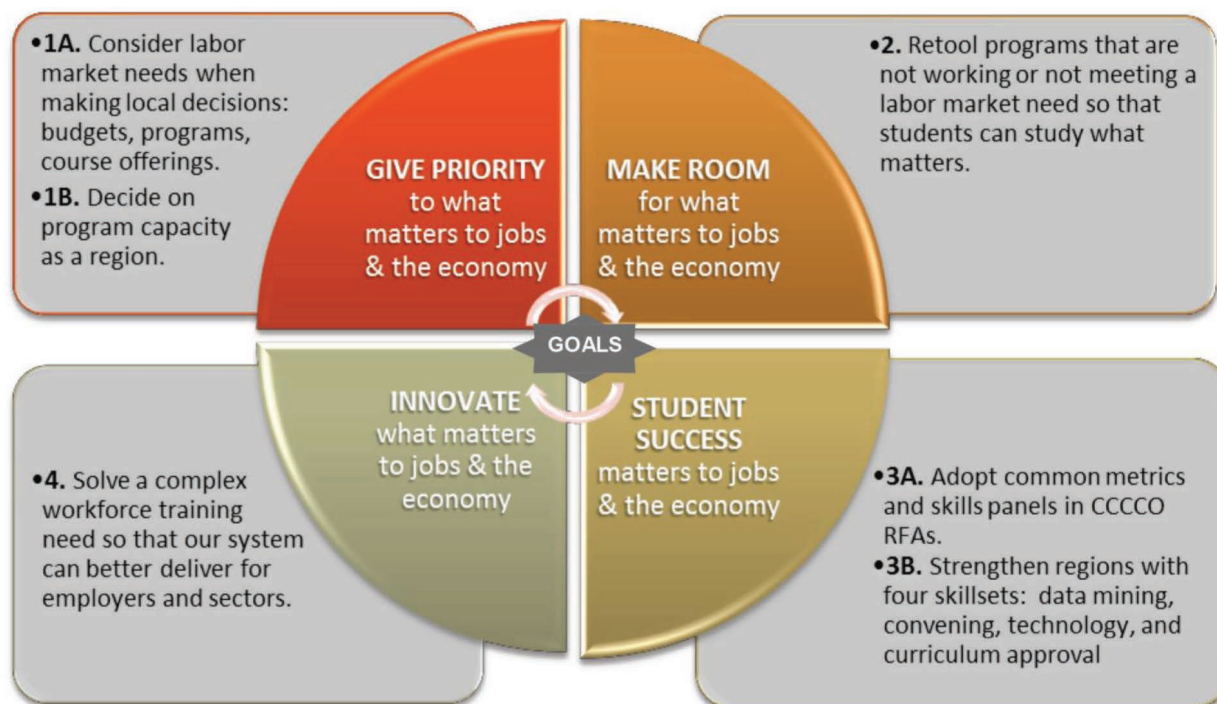
These EWD grantees develop strong partnerships with the private sector, ensuring industry involvement in community college programs. EWD is an outcomes-oriented program that measures results for businesses, employees and students.

### Doing What Matters for Jobs and the Economy

EWD is one of the main programs supporting work under the Doing What Matters for Jobs and the Economy (DWM) framework. Doing What Matters provides structure for a system of service to community colleges, employers, workers and students aimed at supporting the growth of California’s regional economies. It encourages California Community Colleges to collaborate regionally and cross-regionally to better position career technical education programs to train Californians for in-demand occupations. It also provides employers with adequate pools of talent. The four prongs of the DWM framework are:

- Give priority for jobs and the economy by considering labor market needs when making local decisions on budgets, courses and programs, and deciding on program capacity as a region.
- Make room for jobs and the economy by retooling programs that are not working or not meeting a labor market need so that students can study what matters.
- Promote student success by braiding funding, advancing common metrics, and supporting regions in data mining, convening, technology,

## Doing What Matters for Jobs and the Economy



and professional development on the curriculum approval process.

- Innovate for jobs and the economy by solving complex workforce training needs so that our system can better deliver for employers and sectors.

### Strong Workforce Task Force

The DWM framework allowed EWD to lay the groundwork for the California Community Colleges Board of Governors' Task Force on Workforce, Job Creation and a Strong Economy. Commissioned in late 2014 and comprised of internal and external stakeholders, the task force was asked to consider strategies and recommend policies and practices to meet California's anticipated shortage of one million industry-valued, middle skill credentials projected for the next decade.

Throughout 2015, the task force took input from more than 1,200 stakeholders during a nine-month period. This input identified actions to provide policy guidance, regulatory review, and legislative and budgetary actions to increase the number of students obtaining career technical education degrees and certificates, which is crucial for closing California's skills gap. As a result, the task force developed a set of 25 recommendations covering seven broad categories: student success, career pathways, workforce data and outcomes, curriculum,

career technical education faculty, regional coordination and funding. The California Community Colleges Board of Governors overwhelmingly approved the recommendations in November 2015. In 2016, Workforce and Economic Development Performance Advisory Committee members and Economic Development Program Advisory Committee (the field advisory committee to the EWD program) members will be engaged to advise implementation of the recommendations.

**Economic Development Program Advisory Committee (EDPAC)** is an advisory body established to fulfill the statutory requirements of SB 1402, which is the California law authorizing the EWD program. **Workforce and Economic Development Performance Advisory Committee (WEDPAC)** complements EDPAC by incorporating partners outside the state's community college system. Combined, these advisory boards promote discussion between industry, labor, economic development, policy advocacy and related state agencies, as well as community college faculty, classified staff, administrators, students and district trustees.

To ensure the economic prosperity of the state and its diverse population, California must address the issues and recommendations identified by the task force. This requires a broad-based commitment from the entire community college system, other education system

and workforce partners, business and industry, and state policymakers to ensure more Californians acquire the education, skills, and work experience required for a strong and vibrant economy.

### **Workforce Innovation Opportunity Act (WIOA)**

California state law requires the California Workforce Development Board to collaborate with the chancellor of the California Community Colleges, the California Department of Education, other appropriate state agencies and local workforce development boards to develop a comprehensive state plan as a framework for public policy, fiscal investment, and the operation of all state labor exchange, workforce education and training programs. State law specifically directs the California Workforce Development Board to develop a plan that builds regional alliances between workforce and education professionals and employers to meet workforce needs.

State planning requirements anticipate and are consistent with the policy direction prescribed in WIOA. This state plan coordinates training services and investment to align with industry needs by organizing efforts around career pathways aligned with regional labor market trends. By doing so, this state plan is designed to meet both state and federal planning requirements while also providing a comprehensive framework for partnership between private industry and the state's publically-funded workforce and education systems.

## **PRIORITY SECTORS**

In 2013-14, each economic region identified industry sectors that had maximum economic impact and demand for a skilled workforce. Using the goals of establishing a framework for targeted investment of education and training funds, ensuring a demand-driven workforce development system, and better aligning career pathways and the needs of employers in regional economies, each region's workforce and economic development networks- worked to identify their respective priority and emerging sectors. By engaging employers as partners rather than customers, regions were able to achieve a deeper and more sustainable level of employer engagement in developing education and training programs to meet industry needs and advance the identified sectors.

The 10 sectors in high growth or emerging industries are:

- Advanced Manufacturing & Advanced Technology

- Advanced Transportation & Renewable Energy
- Agriculture, Water & Environmental Technologies
- Energy, Construction & Utilities
- Global Trade & Logistics
- Health Workforce Initiative
- Information & Communications Technology/  
Digital Media
- Life Sciences/Biotechnology
- Retail/Hospitality/Tourism "Learn and Earn"
- Small Business

In summary, priority sectors show higher numbers of jobs, average annual openings and hourly wages than in other sectors.

### **Industry Employment in Priority Sectors**

In the table below, industry employment data summarizes the current number of jobs in the state for eight of the 10 priority sectors and the most recent average annual earnings per worker<sup>1</sup>, as well as the growth or decline in jobs anticipated through 2018. Sectors are sorted in descending order by number of jobs in 2015. All priority sectors are anticipated to experience new job growth over the three-year period. The only exception is Advanced Manufacturing, which is projected to contract by as many as 60,000 jobs.

For community college planning, industry employment data is an important measure of demand and may reflect new job growth or anticipated decline. But it does not show the estimated need for replacement workers, which is an important measure of demand for assessing occupational training programs.

Select examples of occupations related to the priority sector industries and have established community college applications are profiled for the 2015-2018 period (See Appendix A.) Occupations are arranged in descending order by total openings. Although chosen for their relevance to one priority sector industry, the data represents employment estimates, projections and wages for each occupation across all industry sectors.

## **REGIONAL COLLABORATION THROUGH EWD INITIATIVES**

By providing funding to various grantees, EWD continues to support the community colleges in their mission to advance and improve career technical education



### Exhibit 1: Job Openings in Priority Sectors, 2015

Sector <sup>2</sup>	Number of Jobs in 2015	Projected Change (2015-2018)	Annual Change <sup>3</sup>	% Change (2015-18)	2014 Average Annual Earnings
Retail/Hospitality/Tourism “Learn and Earn”	3,333,498	164,360	54,787	5%	\$32,164
Health Workforce Initiative	1,617,553	113,083	37,694	7%	\$76,272
Advanced Manufacturing & Advanced Technology	1,310,799	(61,360)	(20,453)	(5%)	\$98,413
Energy, Construction & Utilities	1,064,044	48,617	16,206	5%	\$89,493
Information & Communications Technology/Digital Media (ICT-DM)	976,158	50,883	16,961	5%	\$147,324
Life Sciences/Biotechnology	865,740	48,937	16,312	6%	\$113,110
Agriculture, Water & Environmental Technologies	604,200	11,451	3,817	2%	\$42,256
Advanced Transportation & Renewal Energy	557,795	10,244	3,415	2%	\$56,115

Source: Centers of Excellence

programs. Under the DWM framework, EWD has increased greatly in scope. EWD grant initiatives expand the services available to both colleges and employers to bolster the state’s regional economies. In this way, better alignment is achieved between college offerings and industry needs. This makes significant and meaningful impacts on the quality of career technical education programs at California’s community colleges. EWD grantees are education and/or industry specialists who use their subject matter expertise to provide an expanded breadth of services. These services include: developing industry-aligned curriculum; providing training and work-based learning opportunities; conducting labor market research; and connecting colleges with business, industry and other education providers.

The initiatives in the DWM framework funded by EWD include grants for sector navigators, deputy sector navigators, technical assistance providers and Industry-Driven Regional Collaboratives.

**Sector navigators** are first contacts for employers and the community college system in a given priority sector. Sector navigators develop an advisory structure for their sector and work across regions (or statewide) to coordinate work plans and communications between deputy sector navigators. Sector navigators partner with regional consortia and technical assistance providers to align community college and other workforce development resources with the needs of industry. They track industry trends with workforce development

implications and assist the California Community Colleges in connecting to industry associations and major employers. Sector navigators facilitate the spread of information by identifying and disseminating curriculum models and effective practices and alerting and mobilizing regional consortia to pursue contract and grant opportunities.

**Deputy sector navigators** are in-region contacts for a given sector. Deputy sector navigators work with their region’s colleges and employers to create alignment around workforce training and career pathways. Deputy sector navigators operate at the seven macro-regions designated under the DWM framework. Within each macro-region there are between five and seven deputy sector navigators, each serving a different priority or emergent industry sector. Together all deputy sector navigators working in a given sector statewide constitute an industry-focused network led and coordinated by their sector navigator. This network helps deputy sector navigators normalize work plans, exchange effective practices and field “how to” questions from colleges and employers.

**Centers of Excellence for labor market research** are labor market and data resource centers for education and industry stakeholders. These centers provide real-time and forecasted industry-validated regional labor market research. As part of the DWM framework, these centers provide regional college consortia and sector-based initiatives with labor market informa-

tion useful in decision making. Examples are program development to close skills gaps, and provide data to support better alignment of labor market workforce demands with training capacities at the colleges, within the region, and across the state.

**Industry-driven regional collaboratives** are short-term, grant-funded networks of regional public, private, and other community-based organizations. They support community colleges' efforts to meet regional industries' training and education needs. Responsiveness to these collaboratives is designed to allow for ample local autonomy and flexibility in decision-making. Examples of services are:

- Providing professional development on new curriculum and instructional modes to community college faculty.
- Providing counseling and training to businesses aimed at helping them succeed and grow.
- Developing model curriculum/instructional packages, creating new courses, and instituting up-to-date instructional methodologies and technologies needed to train students and incumbent workers on new technologies.
- Offering instruction through new programs/courses, work-based learning opportunities, and performance improvement training.
- Purchasing equipment necessary to support eligible activities.

**Technical assistance providers** provide expertise in specific areas of need to the Chancellor's Office, colleges, and other grantees under the DWM framework. Technical assistance providers enable regional consortia, individual colleges, sector navigators, deputy sector navigators, sector partnerships and collaborative communities of practice to more effectively carry out their roles. The technical assistance providers provide subject matter expertise on labor market information, contract education, and communications and logistics. EWD has also contributed financial support (along with funding from Carl D. Perkins Career and Technical Education Improvement Act of 2006 and the Career Technical Education Pathways Program) for the statewide accountability dashboard for career technical education programs called the LaunchBoard.

The LaunchBoard is an online data decision tool kit bringing education, employment and labor market data together to provide the Chancellor's Office and

California's community colleges with information on college career technical program performance, including transitions from K-12 career technical education programs to colleges, college enrollment and completions, attainment of industry or state certifications, and employment in field of study and earnings.

LaunchBoard also helps colleges and regional stakeholders to explore program elements related to delivery of services and their effectiveness. This data helps to identify student achievement goals, as well as improvement areas. Lastly, it develops regional and state-wide conversations about career technical education programs, including benchmarking strategies for increased program impact.

The Program Snapshot is intended to enable practitioners to access information by DWM priority sector (such as Health or Advanced Manufacturing), program, college and region. Information is displayed in a visual format, based on common questions such as "Are we training the right number of students for available jobs?", "Are there equity gaps in student success?" and "Are students getting jobs?" Users can also drill down to more detailed data tables, where they can disaggregate results by 20 different factors including demographic information, special needs status and prior education. Each metric shows the most recent year's figures as well as a three-year trend, regional totals and statewide figures.

The Program Snapshot also allows faculty and college leadership access to information needed program review, accreditation, college planning and regional coordination.

**"The LaunchBoard makes the California Community Colleges system the national leader in the development of database tools for aligning students' career aspirations, curricula and labor market opportunities."**

Anthony P. Carnevale  
*Research Professor and Director, McCourt School of Public Policy  
Georgetown University Center*

## METHODOLOGY

The data for this report is collected through both quantitative and qualitative methods. Financial data and select performance information are collected through

online grant reporting systems. Qualitative data, such as success stories, are collected through the sector navigators. The data presented in this report covers the grantee term fiscal year 2014-15.

## Quantitative Reporting

With oversight by their EWD grant monitors in the Chancellor’s Office, project directors and chief business officers report and certify their grants’ budget and expenditures quarterly in the EWD Online Expenditure System. Before grants are closed, a report of their required match and any additional resources leveraged is also collected. Project directors, including sector navigators and deputy sector navigators, also provide a quarterly summary of performance information—a list of activities conducted and a report on outcomes achieved.

## Qualitative Reporting

Qualitative reporting provides rich detail about the achievements of EWD grantees that cannot be obtained through quantitative data only. Each of the 10 sector’s sector navigator and deputy sector navigator grantees provide descriptions of their major activities and accomplishments, including sharing examples of success stories. These descriptions provide critical information on innovative and promising practices to EWD staff, career technical education deans, and the division’s vice chancellor, as well as other decision-makers and stakeholders.

## KEY FINDINGS

### EWD Initiative Funding

In 2014-15, EWD funded 93 grants over five major initiatives, totaling \$22.9 million. The largest allotment of funds (\$13.4 million) was awarded to deputy sector navigators via 66 grants, representing 58.7 percent of the all EWD funding. Grants for the 10 sector navigators totaled \$3.8 million, or 16.7 percent of all funding. Seven grants for Industry-driven regional collaboratives received \$3.2 million, which was 14 percent of the total funding. The seven Centers of Excellence were awarded \$1.1 million (5 percent), while \$1.3 million (5.6 percent) of the funding was allocated to capacity building, training, and technical assistance providers supporting grantees’ work.

Initiative	# of Grants	Awards
Deputy Sector Navigators	66	\$13,440,000
Sector Navigators	10	\$3,830,000
Industry-Driven Regional Collaboratives	7	\$3,210,481
Centers of Excellence	7	\$1,142,500
Capacity Building, Training, & Support TAPs	3	\$1,277,525
<b>Total</b>	<b>93</b>	<b>\$22,900,506</b>

Source: EWD Quarterly and Final Expenditure Reporting System

Each region selects which industry sectors are most relevant to its regional economy. The amount of funding allocated to a given sector is correlated to how many regions select that sector as a priority area. The five sectors most frequently selected were: Small Business (\$2.5 million), Health (\$2.4 million), Information and Communications Technology (ICT)/Digital Media (\$2.4 million), Global Trade and Logistics (\$2.4 million) and Advanced Manufacturing (\$2.2 million). See Exhibit 4.

The EWD funding in each region varies according to how many priority industry sectors were identified in a given region. Each region received at least eight grants and \$2.2 million in funding. Region A (Northern California) was awarded the most in grant funding with 18 grants totaling \$4.6 million, followed by Region G (Los Angeles/Orange County) with 11 grants totaling \$4.4 million, and Region B (Bay Area), with 19 grants totaling \$3.5 million. See Exhibit 5.

### Initiative Activities and Outcomes

EWD grantees provide colleges and businesses with a variety of valuable services, including helping colleges develop and align curriculum according to industry needs. Other services include:

- Providing professional development training for college faculty.
- Connecting colleges and businesses to each other.
- Providing training for employees.
- Coordinating work-based learning opportunities for students.
- Helping colleges coordinate with other workforce partners and programs.
- Coordinating work on career pathways with K-12 partners.

- Providing college and industry with labor market research and studies.

The following are examples of services provided by the sector navigators and deputy sector navigators (Refer to Appendix A).

### **Curriculum Development**

- Greater Sacramento importers/exporters need comprehensive job and business skills and the Center for International Trade Development responded with the International Entrepreneurship/Global Exporting Certificate of Achievement at Folsom Lake College. It is an 18-unit, for-credit credential that prepares the current and future generations of our workforce for the global marketplace and creates global trade skills in our entrepreneurs.
- The Agriculture, Water & Environmental sector has a long-term partnership with the Irrigation Training and Research Center at Cal Poly at San Luis Obispo. The original intent was to train instructors, but it now includes aligned online curriculum used by community colleges as part of a certificate or degree to articulate to Cal Poly's bachelor's degree. The course also prepares students for the National Irrigation Association's certification titled "Certified Agriculture Irrigation Specialist". Additionally, the partnership with the Cal Poly San Luis Obispo Irrigation Training and Research Center resulted in the creation of instructional aides, including videos, for community colleges that may not have without access to large equipment needed to prepare an irrigation lab.

### **Professional Development for Colleges**

- Representing the irrigation industry, the Agriculture, Water & Environmental Technology Statewide Advisory Committee worked with the National Irrigation Association to provide an industry-led faculty academy for community college and high school instructors. The two-day program developed skills in irrigation manufacturing and design. Instructors participated in hands-on labs and were then provided with irrigation toolkits to use in their classrooms. Instructors also received PowerPoint presentations from industry groups as well as contacts for additional help in classrooms for irrigation technology and water conservation.

- The Energy, Construction & Utilities sector team facilitated a transfer of leading-edge industry content from Pacific Gas and Electric Company to 11 colleges. More than 1,000 hours of instructional material were made available through train-the-trainer sessions attended by 18 faculty members.

### **Connecting Colleges and Industry**

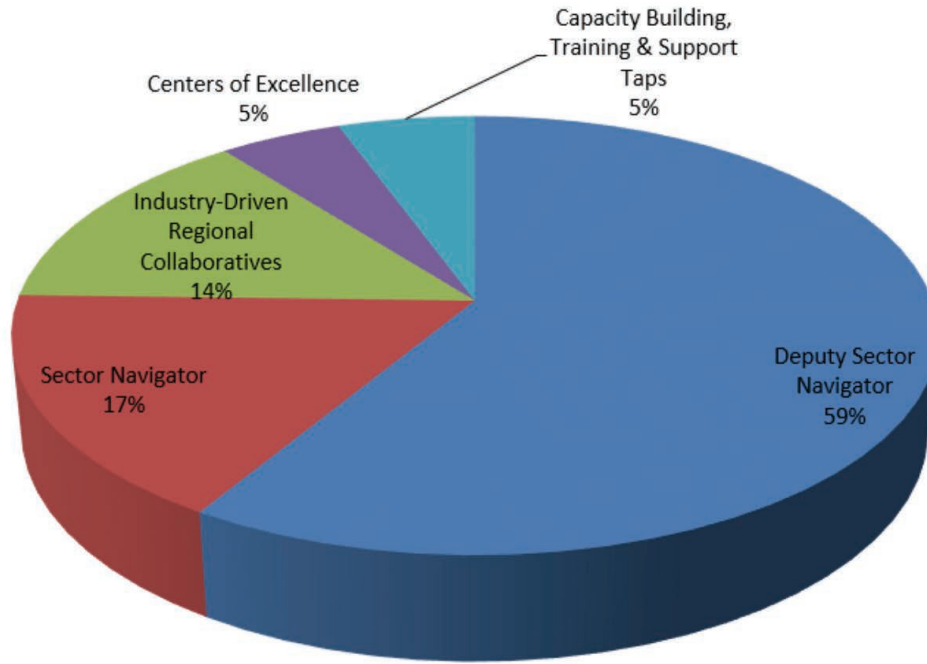
- The Los Angeles/Orange County Region needs electrical field service technicians and veterans need jobs. Advanced Transportation & Renewable Energy Deputy Sector Navigator Jannet Malig, along with Cerritos College's Technology Division and True South Renewables Inc., created a first-of-its-kind training program to assist military veterans and other qualified applicants. These technicians maintain the country's fast-growing solar power and electric vehicle infrastructure.
- "It's Raining Jobs" Counselor Summit, a joint effort of deputy sector navigators in the Central Valley/Mother Lode region, provided opportunities for high school and community college counselors to learn from industry experts about the education and skill requirements for local, high-demand jobs in the region. Participating sectors included Advanced Manufacturing & Advanced Technology; Agriculture, Water and Environmental Technologies; Global Trade & Logistics; Health Workforce Initiative; Information & Communication Technologies/Digital Media; Retail/Hospitality/Tourism; and Small Business. The goal was for counselors to be adequately informed and equipped to advise high schools students about middle-skills careers and career technical education opportunities offered by California's community colleges. The event attracted more than 400 attendees.

### **Training Opportunities for Workers and Students**

- Proposition 39 funds helped Foothill College students obtain the latest Building Information Modeling tools designed for energy-efficient heating, ventilating and air conditioning mechanical piping design and installation. The Clean Energy Program Improvement funds were used to purchase the Trimble and Sokkia Total Stations in the laboratory at the Pipe Trades Training Center for apprentices and journeymen to learn hands-on industry practices for field installations. Mark Williams, a Proposition 39 project director within the Energy, Con-

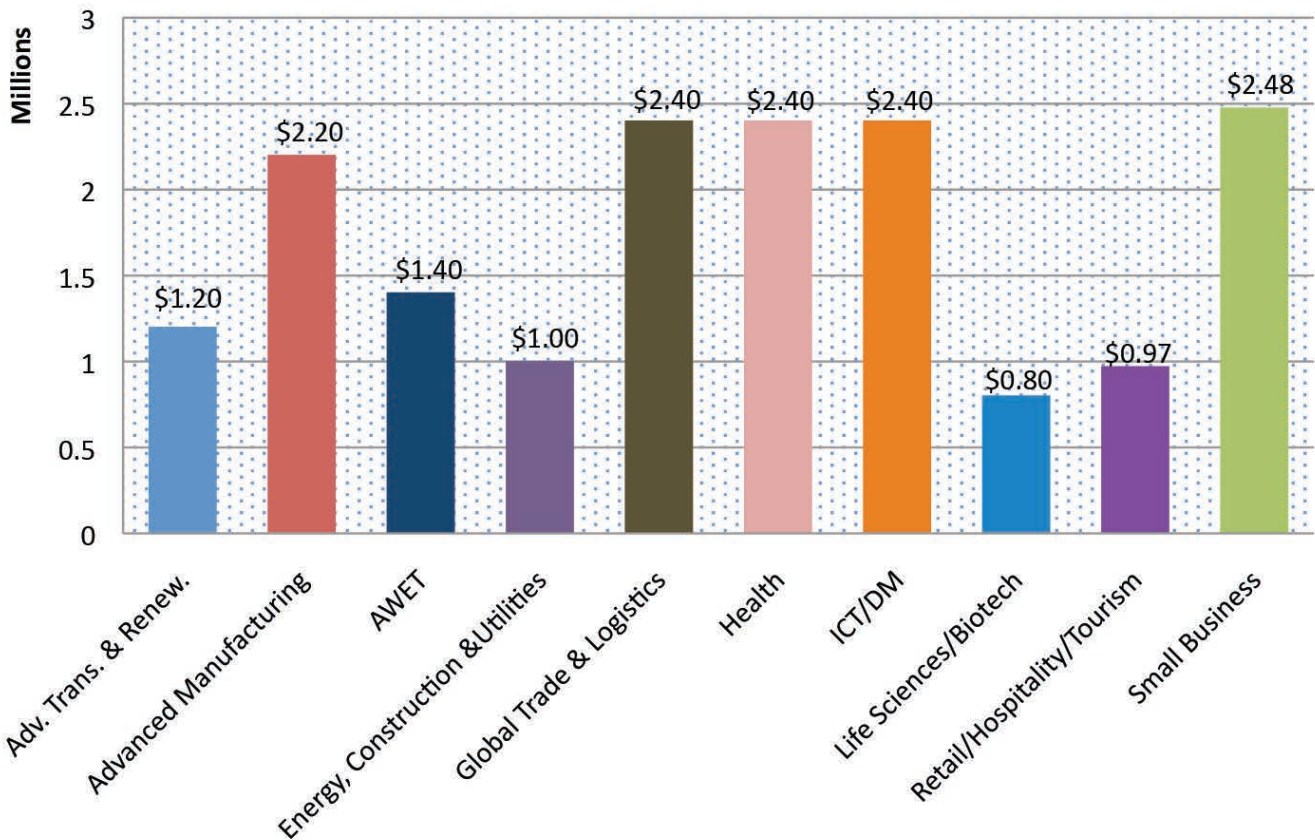


**Exhibit 3: 2013-14 Funding by EWD Grant Initiative**



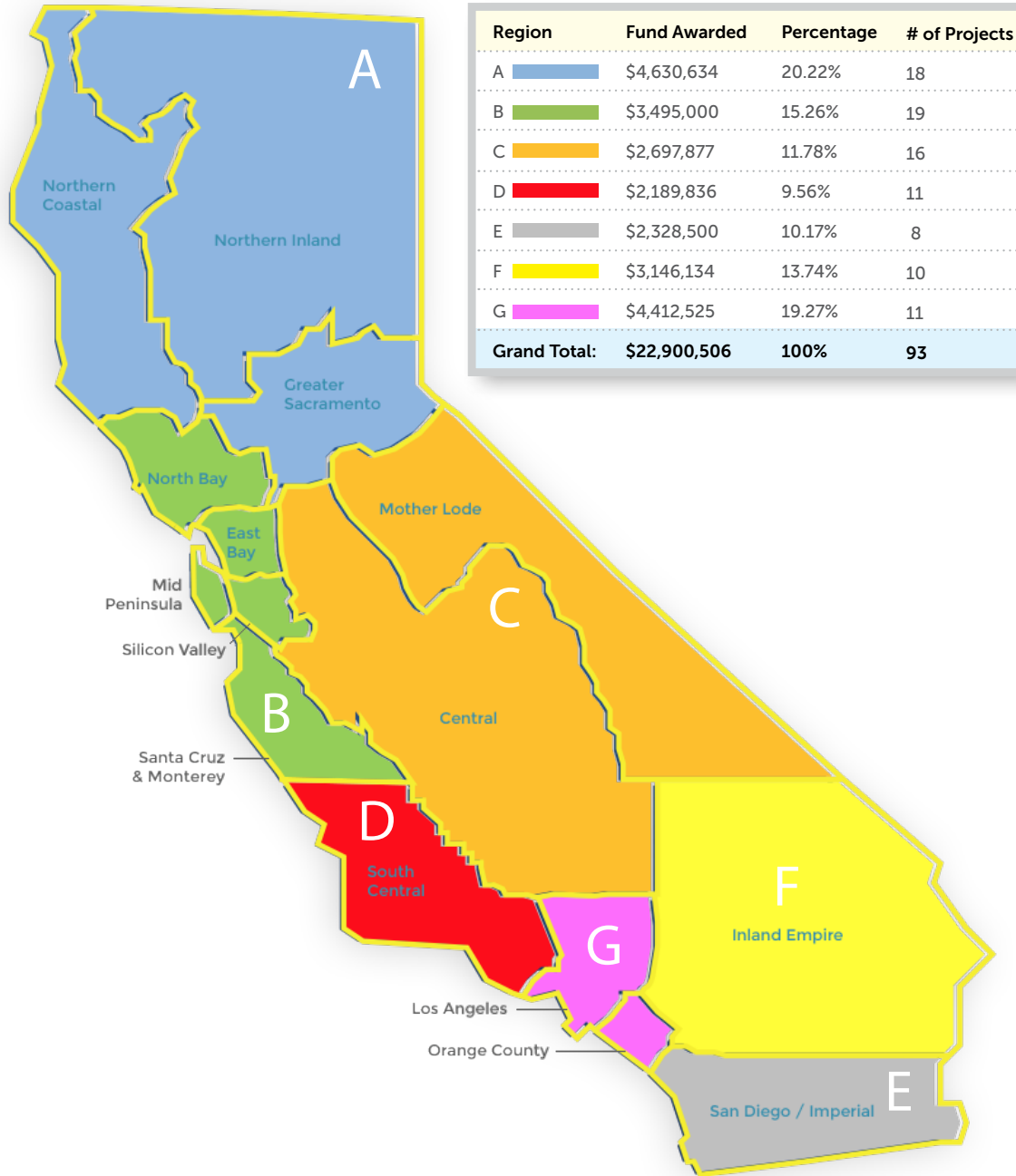
Source: EWD Quarterly and Final Expenditure Reporting System

**Exhibit 4: 2013-14 Funding by Priority Sectors**



Source: EWD Quarterly and Final Expenditure Reporting System

## Exhibit 5: 2013-14 Grant Initiative Awards Across Regions



struction & Utilities sector, reported more than 40 students and journeymen now have the skills to manage these stations and equipment effectively. This resulted in more employment opportunities, more contractors successfully bidding for jobs and more employees in-demand skills.

- In each of the 10 regions, the on-going partnership with the Health Workforce Initiative and the California Institute for Nursing and Health Care resulted in statewide workshops titled, *Emerging Care Models and Changing Roles for Nurses*. This

event served more than 1,000 students, faculty and industry representatives.

### Coordination with Workforce Partners

- To assist underemployed and unemployed residents of the Inland Empire/Desert Region to take advantage of the new jobs in the growing Green Economy, Advanced Transportation & Renewable Energy Deputy Sector Navigator Larry McLaughlin worked with the local Workforce Investment Board to create ‘Green Pathways = Green Paydays.’

This collaboration between Riverside Workforce Development, College of the Desert, and the regional chapter of GRID Alternatives has proven very effective in addressing workforce needs of the region's renewable energy industry. The deputy sector navigator created the renewable energy training services for the program in collaboration with its author, Workforce Development Board's Regional Director Wendy Frederick. The underemployed and unemployed participants of the training received more than 300 offers of employment.

- The program also helped usher in a new age of renewable energy for California by working with contractors and labor unions to place skilled workers in some of the world's largest solar projects being constructed in Riverside County. The success of 'Green Pathways = Green Paydays' was recognized as a 2015 semifinalist for the Innovation in American Government Award by the Harvard/Kennedy School's Ash Center for Democratic Governance and Innovation.
- The Ventura County Office of Education, in partnership with the South Central Coast Regional deputy sector navigator for the Health Workforce Initiative sector, California Lutheran University, the Chamber of Commerce Workforce Education Coalition and numerous community business partners, hosted a two-hour event to introduce students interested in careers in the health care sector to professionals working in the field. Approximately 30 students and 10 instructors from 13 Ventura County high schools, adult schools and community colleges attended the event. Nearly 30 health care professionals also participated in the program, including physicians, hospital floor nurses, home healthcare specialists, pediatric occupational therapists, physician assistants, emergency room nurses, renal specialists, mental health workers, imaging techs, social workers, biotech manufacturers and chiropractors.

#### **Coordination with K-12 around Career Pathways**

- In response to the industry's pent-up demand for auto technicians, large scale retirements of existing workers and the positive impact of a strong Silicon Valley economy, Gerald Bernstein and Pamela Gutman of the Advanced Transportation & Renewable Energy sector supported high school/college/em-

ployer pathways for auto technicians. The Bay Area team met with 16 area auto programs to assess their needs to effectively provide support. A regional automotive brochure targeting automotive dealerships, independent shops and automotive employers grant funds was used to help rebuild Fairfield High School's automotive program. Other participating high schools produced support of their automotive programs: Deer Valley High School (articulated with Los Medanos), James Logan and Kennedy High Schools (articulated with Chabot College), and Livermore High School (articulated with Las Positas College).

- The Health Workforce Initiative's partnership with the Health and Science Pipeline Initiative, a statewide project to support middle and high schools in implementing science-based health pathway programs, continues to facilitate the statewide implementation of the high school-based curricula of medical biology, medical chemistry, medical anatomy & physiology, as well as middle school medical life science and science, technology, engineering and math/physical science. Through partnerships among science and career technical education teachers and regional employers, students are prepared for careers in science, health and medicine through the infusion of health and medical concepts into traditional standards-based science courses. The program is currently being used for the health sector component of the California Career Pathway Trust grants. Outcomes included 276 high school teachers and administrators, and 2,134 students, participating in an implementation workshop.

#### **Research and Studies**

- The Life Sciences/Biotechnology sector reported that a study among community health workers from Alliance Healthcare Foundation, Somali Family Services Foundation, Somali Family Services San Diego, North County Health Services, San Ysidro Health Center, Wireless Life Sciences Alliance and Health Equity Associates guided the development and deployment of a pilot course in digital medical devices and digital health literacy for community health outreach workers in non-allied health positions. Increasingly, these workers serve as a bridge in underserved communities to the healthcare system.

- The Advanced Transportation & Renewable Energy sector navigator provided the deputy sector navigators and the regional chairs with 52 workforce strategy studies. These studies help deputy sector navigators evaluate labor market and industry information and develop an overview of how business and workforce industry needs are changing. Data included the identification of 2,147 rapidly growing clean technology companies in California in 2014. The deputy sector navigators have incorporated these findings to advance the sector and regional strategies and training development. Learn more at <http://www.atreeducation.org/wp-content/uploads/2015/10/ATRE-Data-Analysis-ATRE-Regions.pdf>

Across all grants, EWD served significant numbers of students, employees and businesses, resulting in Californians getting jobs and businesses boosting their outputs. EWD delivered training for 24,639 people and provided 2,456 students with work-based learning opportunities via internships and apprenticeships. In total, 1,105 EWD-supported students obtained employment and 9,850 employees retained their jobs. The program also served 11,364 businesses. Subsequently, these businesses hired 1,628 people and created 74 new products or services.

#### **Exhibit 6: Highlights of EWD Program during 2014-2015**

##### **Student/Employee Outcomes**

- 48,027 students served
- 19,626 employees served
- 59,879 total people trained
- 2,456 students enrolled in work-based learning (internships and apprenticeships)
- 24,639 completions of workshops and training
- 1,105 students placed in jobs
- 9,850 employees retaining jobs

##### **Business Outcomes**

- 11,364 businesses served
- 1,105 people hired by businesses served by EWD
- 19 new products and services were created by businesses across California with the support of EWD services

Source: EWD Quarterly and Final Expenditure Reporting System

## **CONCLUSION**

To ensure the economic prosperity of the state and its diverse population, California must address the issues and recommendations identified by the task force. This requires a broad-based commitment from the California Community Colleges, education and workforce partners, business and industry, and state policymakers. Through this commitment, Californians can acquire the education, skills and work experience to participate in a strong and vibrant economy.

Again this year, California's community colleges continue to advance the state's economic growth and global competitiveness through the EWD Program. The design of the EWD program is well received as a means of structuring activities, specifically: regional focus, multi-level delivery and support system and a focus on coordinating with stakeholders.

The recommendations of the Task Force on Workforce, Job Creation and a Strong Economy are the result of months of deliberations based on input from a wide variety of sources reflecting agreement from both internal and external stakeholders of the community college system. Some recommendations may require changes in statute or regulation, while others can be accomplished within the existing structure and parameters of the system. In all cases, these recommendations enhance career technical education and workforce training to meet the demands of the economy and the labor market, benefiting individuals, communities and the entire state.

The initiatives funded in fiscal year 2014-15 created and strengthened the alignment between community colleges and the industries in their economic regions. Sector navigators and deputy sector navigators continued to serve businesses. Industry-driven regional collaboratives provide employers and colleges the opportunity to work together to create and improve course offerings to prepare students with the skills and education needed to fill high-demand jobs. The Centers of Excellence provide colleges with labor market research, which colleges can use in their accreditation and program review. The increased collaboration with industry enabled California Community Colleges to supply in-demand skills for employers, create relevant career pathways and





stackable credentials, promote student success and direct Californians into open jobs.

EWD decisions are more data-driven and evidence-based, resulting in strategic investments based on proven practices. The LaunchBoard accountability dashboard, now in version 2.0, gives California Community Colleges a tool to report and share the effectiveness of their programs by tracking student outcome data and economic impact. It is a powerful new tool to support the development and improvement of career technical education programs. The Program Snapshot, which is part of the LaunchBoard data system, enables practitioners to access information by Doing What Matters Priority sector (such as Health or Advanced Manufacturing), program, college and region. Information is displayed in a visual format, based on common questions such as “Are we training the right number of students for available jobs?” “Are there equity gaps in student success?” and “Are students getting jobs?”

Users can also drill down to more detailed data tables, where they can disaggregate results by 20 different factors including demographic information, special needs status and prior education. Each metric shows the most recent year’s figures as well as a three-year trend, regional totals, and statewide figures. The Program Snapshot is intended to promote access to data on student outcomes and labor market information. This snapshot feature gives faculty and college leadership easy access to the information needed for program review, accreditation, college planning and regional coordination. In addition to viewing information online, users can download information into multiple applications and insert it directly into reports, PowerPoint presentations and websites. Excel worksheets can also be downloaded to facilitate further research into student outcomes. In summary, continuing the work of the EWD program gives California community colleges the ability to build upon their current success and positively impact California’s economy into the future.



# APPENDICES:

## Appendix A: Priority Sector Summaries



CALIFORNIA COMMUNITY COLLEGES  
**Doing What MATTERS™**  
FOR JOBS AND THE ECONOMY



BERKELEY CITY COLLEGE

## Advanced Manufacturing & Advanced Technology

Jose Anaya, Sector Navigator

[www.makingitincalifornia.com/](http://www.makingitincalifornia.com/)

*Create efficient yet flexible production systems using and advancing computer and information technologies to serve changing customer production needs.*

The California manufacturing sector, with its multiple clusters and extensive supply chains, ranks first in the nation for employment in manufacturing. Given the importance of manufacturing in the state, the Advanced Manufacturing & Advanced Technology sector navigator, deputy sector navigators and Centers for Applied Competitive Technologies strive to enhance the statewide delivery of technical services and education to business and industry, occupational faculty, service providers, and students. The navigators and Centers for Applied Competitive Technologies offer technical assistance, help develop curricula, and deliver advanced technology training to colleges, manufacturers, and students throughout California, resulting in consistent, replicable, quality statewide advanced manufacturing programs that are tailored to the regional needs of our stakeholders throughout the state.

<b>Occupational Employment: Advanced Manufacturing</b>	<b>2015 Jobs</b>	<b>Projected Change</b>	<b>Replacements</b>	<b>Total Openings</b>	<b>Annual Openings</b>	<b>Median Annual Wages</b>
First-Line Supervisors of Production & Operating Workers	58,604	(1,400)	2,435	2,435	812	\$53,845
Electrical & Electronics Repairers, Commercial & Industrial Equipment	6,227	99	381	480	160	\$59,301
Semiconductor Processors	6,415	(657)	418	418	139	\$33,951
Mechanical Engineering Techs	5,364	49	338	387	129	\$57,236
Industrial Engineering Techs	4,786	(11)	324	324	108	\$57,122

Source: Centers of Excellence (see Exhibit 1)

### Best Practice

#### *Hacker Lab*

Carol Pepper-Kittredge, deputy sector navigator for Advanced Manufacturing, worked with Sierra College to form a private/public partnership with Hacker Lab at a new location in Rocklin. Established in 2012, Hacker Lab is a place where entrepreneurs, hobbyists, students, artists, retirees and corporate employees mix, inspire and produce in incubator offices and hands-on fabricating space. Hacker Lab's goal is to educate and spark innovation with community-driven resources. Hacker Lab believes that technology can change the world and the starting point is education. In 2014, Hacker Lab surveyed its 200 members and discovered that \$3.7 million in revenue was generated, 75 jobs were created and 20 start-up ventures were launched because of their involvement with Hacker Lab.

According to Sierra College Superintendent/President Willy Duncan, the Hacker Lab powered by Sierra College is one the first in the nation established by a community college in collaboration with a locally grown co-working and maker space. "Through this private/public partnership with Sacramento's successful Hacker Lab, Sierra College will be able to provide students and the Placer County community access to cutting edge tools, technology, resources and experts," said Duncan.

"Many universities have technology labs and private organizations run maker spaces," said Duncan. "Our strength will be the unique mix of people who can create, build and learn at the Rocklin location of Hacker Lab, backed by the power of Sierra College. I expect it will be a magnet for start-ups and entrepreneurs, offering amazing opportunities for our students as well as the community."

Eric Ullrich, co-founder of Hacker Lab, indicated that the new location in Rocklin has benefited from Sierra College's sponsorship. "We already have a 3D printer, laser cutter, CNC router, soldering and textiles lab all contributed by the Sierra College Center for Applied Competitive Technologies (CACT)," said Ullrich. "We've formed a community of people from the college, businesses and neighborhoods who are volunteering, teaching, using the labs and donating equipment to give the Rocklin location its unique character."

There are several membership options for using the co-working and/or maker space. Memberships are available for students, individuals and families for access 24 hours per day, seven days per week. Sierra College staff, students and faculty can join Hacker Lab at discounted rates. Many meet-ups are free, while other classes and events are priced separately.

Carol Pepper-Kittredge explained that Hacker Lab fulfills multiple goals. "By welcoming a mix of people from businesses, the community and the college, it will spur learning, innovation and creativity," said Pepper-Kittredge. "Hacker Lab will introduce young people to science, technology, engineering & math Careers; provide authentic experiences for college students through project-based learning and internships; support the formation of new businesses and product development for existing companies; and create an exciting environment of creativity, making and learning for everyone." Go to [hackerlab.org/sierracollege/](http://hackerlab.org/sierracollege/) for more information.



## Advanced Transportation & Renewable Energy

Peter Davis, Sector Navigator

[www.atreeducation.org](http://www.atreeducation.org)

*Ensure that California maintains its role as a clean technology world leader in a rapidly changing global environment with competitive, efficient and environmentally clean transportation and energy industries.*

Advanced transportation and renewable energy represents an array of clean energy technologies forming a critical part of California's strategy to reduce its climate change impact, as well as grow a robust green economy. California has always been a world leader in clean energy technologies, but to advance its competitiveness, a superior workforce skilled in rapidly-changing clean energy technologies must exist. The goal of the Advanced Transportation & Renewable Energy sector, and the focus of its state-level sector navigator and regionally focused deputy sector navigators, is to help drive creation of a skilled California workforce. The sector seeks to accomplish this goal by helping to align programs and curriculum with the needs of regional sector employers, developing faculty collaboratives, connecting programs and employers, and producing related performance based outcomes.

Occupational Employment: Advanced Transportation & Renewable Energy	2015 Jobs	Projected Change	Replacements	Total Openings	Annual Openings	Median Annual Wages
Automotive Service Techs/Mechanics	81,901	844	7,057	7,901	2,634	\$36,881
First-Line Supervisors of Mechanics/ Installers/Repairers	41,961	1,119	3,494	4,613	1,538	\$70,226
Aircraft Mechanics & Service Techs	13,565	413	1,126	1,539	513	\$63,141
Automotive Body & Related Repairers	16,205	315	1,083	1,398	466	\$37,459
Avionics Techs	2,027	59	127	186	62	\$70,866
Electrical & Electronics Installers/ Repairers, Transportation Equipment	1,182	0	74	74	25	\$60,237

Source: Centers of Excellence (see Exhibit 1)

### Best Practice

*Sustainable Academy of Building and Engineering)*

The demand for highly skilled engineers, renewable energy experts and development specialists is growing not only regionally, but worldwide. The new roles for environmental engineers, scientists and green technical occupations will become increasingly more critical within the next decade.

To address this demand, San Diego-Imperial Region Deputy Sector Navigator Greg Newhouse supports a number of key foundational career pathway/workforce development programs. One of these is the Sustainable Academy of Building and Engineering, Hoover High School's green technology and engineering program. The academy prepares students for college and careers, as well as tomorrow's global challenges.

This program provides students with a challenging, hands-on approach for exploring careers related to engineering, renewable energy and green technology. Courses offer several experimental, student-built projects, ranging from solar boats to solar greenhouses.

Last year's enrollment included 106 freshmen, 76 sophomores, 32 juniors and 28 seniors. Key program partners are the International Brotherhood of Electrical Workers Local 569, Grid Alternatives, San Diego Unified School District, San Diego Gas & Electric Company, California Center for Sustainable Energy, and Strategic Energy Innovations. Newhouse served as an integral part of this program implementation, providing resource support and industry advisory board input.

## Agriculture, Water & Environmental Technologies

Nancy Gutierrez, Sector Navigator

[www.calagcc.org](http://www.calagcc.org)

*Encompasses four clusters: Agriculture Support, Agriculture Production, Agriculture Wholesale Trade, and Agriculture Water and Environmental Services.*

Not only is the Agriculture, Water, & Environmental Technologies sector essential, but the growth in innovation within the sector plays an important role by fueling product and technology innovations within the state in areas such as energy, plastics, and pharmaceuticals. The Agriculture, Water, & Environmental Technologies sector navigator and deputy sector navigators help provide a foundation for careers in the agriculture industry through the provision of services: curriculum development in emerging careers; career pathways support; professional development for educators; and assistance with statewide collaboration of secondary, community college and university educators.

<b>Occupational Employment: Agriculture, Water &amp; Environmental Technologies</b>	<b>2015 Jobs</b>	<b>Projected Change</b>	<b>Replacements</b>	<b>Total Openings</b>	<b>Annual Openings</b>	<b>Median Annual Wages</b>
Environmental Scientists & Specialists	17,545	977	1,610	2,587	862	\$79,149
Veterinary Technologists & Techs	9,944	845	314	1,159	386	\$36,743
Environmental Science & Protection Techs	4,378	405	549	954	318	\$46,981
Agricultural & Food Science Techs	4,038	141	450	591	197	\$33,426

Source: Centers of Excellence (see Exhibit 1)

### Best Practice

#### *Drought-Related Training Programs*

Through drought relief legislation, the Agriculture, Water, & Environmental Technology sector worked with the California Labor and Workforce Development Agency and Employment Training Panel to provide training to workers and employers in regions severely impacted by the drought. Trainings were held at six different community colleges in the San Joaquin Valley.

The program promoted job retention through training, provided career pathways to new employment, and offered industry-recognized certification and training related to better management of water resources. The program provided 14 different training opportunities, each of roughly 250 hours for completion, to workers, employers and students impacted by the drought.

Career areas included irrigation technicians, logistics technicians, industrial maintenance technicians, forklift and warehouse technicians, food safety technicians, qualified applicators license preparation and manufacturing production technologists.

Certifications included Forklift Operator, Qualified Applicator license, Customer Service Academy, CPR/ First Aid, Certified Agriculture Irrigation Specialists, OSHA 10, HACCP, Qualified Water Efficient Landscapers and Certified Production Technician.

The execution of this project took strategic coordination of colleges, deputy sector navigators and regional contacts in this sector. More than 300 workers were provided free training in the aforementioned subject areas. These were unemployed, underemployed and incumbent workers. The training resulted in new jobs and increased salaries.

## Energy, Construction & Utilities

### Jim Caldwell, Sector Navigator

[www.eeusector.com](http://www.eeusector.com)

Industries engaged in deploying and managing technologies related to the generation, distribution, storage and efficient use of energy.

This sector represents three industry clusters: 1) energy efficiency encompassing firms engaged in energy planning, installation, and management with the purpose of making new and existing buildings more energy efficient; 2) construction, propagating the skills to make energy efficiency a reality through best building & construction practices; and 3) utilities that are primarily focused on generating, transmitting, and delivering electric power; distributing natural gas and water, and collecting and treating waste water. In general, occupations in this sector span the electricity value chain from the generating plant to the wall socket, with an analogous range of occupations in natural gas, water and waste water.

The Energy, Construction & Utilities sector provide a single point of contact for industry to meet its workforce needs through the California Community Colleges. To increase the pipeline of qualified new workers and ensure that trained incumbent workers are trained adequately, the sector navigators and deputy sector navigators facilitate connections between college and industry and workforce investment partners to create or improve career pathways in the industry clusters, develop new courses and work-based learning programs, and provide faculty with ongoing professional development opportunities.

Occupational Employment: Energy, Construction & Utilities	2015 Jobs	Projected Change	Replacements	Total Openings	Annual Openings	Median Annual Wages
Electricians	66,858	1,411	3,932	5,343	1,781	\$57,456
Carpenters	132,340	(2,331)	5,226	5,226	1,742	\$41,343
Plumbers, Pipefitters & Steamfitters	48,001	1,676	1,967	3,643	1,214	\$53,185
Heating, Air Conditioning & Refrigeration Mechanics/Installers	27,916	1,191	2,237	3,428	1,143	\$49,025

Source: Centers of Excellence (see Exhibit 1)

### Best Practice

#### *Super-Regional Collaborative Closes Skills Gaps*

Colleges in Los Angeles, Orange, Riverside and San Bernardino Counties were not meeting the regional industry need for Heating, Ventilation, Air Conditioning, and Refrigeration workers (HVACR). With employment demand increasing, the gap became substantial across seven colleges offering HVACR certificate and degree programs. Students were missing opportunities for high wage jobs and employers were confused about where to recruit qualified job candidates. Furthermore, a lack of articulation agreements constrained incumbent worker progress toward certificates or degrees.

The need for change in this environment was driven by a California Public Utilities Commission (CPUC) mandate for industry and utilities to implement a statewide “sector strategy.”

In response, a new paradigm was created by viewing the pipeline of students moving through the region’s community colleges as a whole, within which student learning outcomes are closely aligned with industry needs. The seven colleges formed the Southern California Regional HVACR Collaborative with key industry stakeholders and standardized on two industry-recognized certifications as the basis for common student outcomes and articulation. Apprenticeship programs and building operations became active members of the collaborative.

Professional development for faculty was introduced to assure linkage to industry trends. An “employer ecosystem” gives employers insights into college programs, supporting more robust and informed recruiting.

Although the first year's impact will be seen in 2015-16 completion data, the HVACR Collaborative enabled better-informed investment of Proposition 39 funds and attracted \$800,000 in Career Technical Education Enhancement Funds.

The HVACR Collaborative has been recognized by the utilities as a model for the state to implement the CPUC's "sector strategy" mandate, especially in its mission to bridge critical workforce gaps. Influential stakeholder groups participating in the HVACR Collaborative are BOMA California, the Western HVAC Performance Alliance, and the International Facility Management Association, along with major statewide employers.

The HVACR Collaborative also triggered research into strategies for higher student completions and industry-valued credentials through UC Davis.

Community colleges, apprenticeship programs and private training institutions award 600 HVACR certificates annually, about half of the regional requirement across the four counties. Most of the 24,000 incumbent workers employed in this region lack the knowledge and skills to conduct code compliant work in support of the state's energy efficiency mandates.

California needs a workforce capable of supporting AB 32, the California Global Warming Solutions Act, and its associated legislation. One requirement is that 50 percent of the state's commercial floor space - about 4 billion square feet - achieves "Zero Net Energy" by 2030. The challenge/opportunity spans the state's Advanced Energy workforce of 178,000, with 15,000 annual job openings.



**Global Trade & Logistics**  
**Jeffrey Williamson, Sector Navigator**  
[www.citd.org](http://www.citd.org)

*Involves the exporting and importing of goods and services across international boundaries, including the logistics, finance, marketing, and management of business processes to support trade.*

Future economic growth for both the California and the U.S. economies is dependent upon global trade. In order to be globally competitive, employees need to be exposed to global business concepts and practices (including exporting, importing and logistics) as well as global geography and culture. The Global Trade & Logistics sector works directly with businesses to identify their needs relative to international business; provide partnership development opportunities with other agencies, employer groups, and business associations; and deliver current and relevant training to help incumbent and prospective workers become more globally competitive. The in-demand topics are then incorporated into the community college classroom through faculty development, global course development, curriculum sharing, and other services provided by the Global Trade & Logistics sector navigator and deputy sector navigators.

<b>Occupational Employment: Global Trade &amp; Logistics</b>	<b>2015 Jobs</b>	<b>Projected Change</b>	<b>Replacements</b>	<b>Total Openings</b>	<b>Annual Openings</b>	<b>Median Annual Wages</b>
Logisticians	15,193	1,129	556	1,685	562	\$81,349
Market Research Analysts & Marketing Specialists	84,986	7,832	3,716	11,548	3,849	\$69,209
Cargo & Freight Agents	12,310	614	1,033	1,647	549	\$43,763
Shipping, Receiving & Traffic Clerks	96,184	521	7,632	8,153	2,718	\$30,432

Source: Centers of Excellence (see Exhibit 1)

**Best Practice**

*The Handbook for Global Careers and Entrepreneurship*

Leveraging its strong relationship with industry, the Northern California Center for International Trade Development at Los Rios Community College District has developed a handbook for job-seekers, counselors and faculty to support career development.

*The Handbook for Global Careers and Entrepreneurship: An International Perspective for the Northern California Region and Beyond* is aimed at boosting continuous workforce development with its user-friendly, how-to guide that can be used by counselors, faculty, staff and students at the regions’ community colleges and others in career-change mode. Although it focuses on the ever-changing job opportunities and resources in the north region, readers will appreciate exploring options for entrepreneurship, overseas employment and study.

To facilitate these explorations, career seekers and advisers will also find hundreds of useful websites and other resources where they can research more information pertaining to searching, preparing for and finding global career close to home or in a faraway land. Topics include an overview, career preparation, traveling abroad, nuts and bolts of the career process, a sampling of career paths and industries, entrepreneurship, regional organizations with international connections, exporting and importing, and country profiles.

Also, profiles developed from interviews with business managers and individuals who have worked abroad or are currently employed in a global career capture the essence of these enriching, life-changing experiences. If readers need to find a country, career, organization or other specific topic quickly, they will find the 16-page index helpful. If they are visual learners, they will be delighted by dozens of photos and graphics depicting aspects of cultures and countries around the world. Although the book is copyrighted, sections can be excerpted for replication and handout.

*The Handbook for Global Careers and Entrepreneurship* is available through a USB card. To order, please contact the Northern California Center for International Trade Development at Los Rios Community College District (916) 563-3200 or email at [info@sacramentocitd.org](mailto:info@sacramentocitd.org).

In 2014, California exported a record-breaking \$174.1 billion of ‘ American made goods to the world; \$149.8 billion of those exports were manufactured products.

- In 2013, California exports of goods supported 802,000 jobs
  - Exports of manufactured products alone supported an estimated 668,000 jobs that year.
- In 2011 (latest year available), over one-fourth (25.2 percent) of all manufacturing workers in California depended on exports for their jobs.
- A total of 75,012 companies exported from California locations in 2012.
  - Of those, 71,921 (95.9 percent) were small and medium sized enterprises with fewer than 500 employees.
  - Small and medium-sized firms generated over two-fifths (44.6 percent) of California’s total exports of merchandise in 2012.

Source: Office of the US Trade Representative, Executive Office of the President. Online at <https://ustr.gov/about-us/policy-offices/press-office/fact-sheets/2015/march/unlocking-economic-opportunity#>.

**Health Workforce Initiative**  
**Linda Zorn, Sector Navigator**  
[www.ca-hwi.org/](http://www.ca-hwi.org/)

*Encompasses healthcare occupations in ambulatory health care services, nursing and residential care facilities, and hospitals.*

The Health Workforce Initiative sector is dedicated to serving both California’s community colleges and health care companies to meet emerging demands for California’s health care industry workers, determine needs while facilitating the development of innovative solutions, and evaluate and initialize health-related educational programs. The sector’s services to colleges include the provision of professional development for faculty and staff, convening of faculty collaboratives, technical assistance with program and curriculum development and/or revision, and support connecting with industry through program advisory structures. The sector navigator and deputy sector navigators also provide health care employers and employees with incumbent worker training, professional development for licensure renewal, labor market analysis to determine needs and gaps, and subsequent strategy development on meeting those workforce needs identified in the analysis.

<b>Occupational Employment: Health Workforce Initiative</b>	<b>2015 Jobs</b>	<b>Projected Change</b>	<b>Replacements</b>	<b>Total Openings</b>	<b>Annual Openings</b>	<b>Median Annual Wages</b>
Registered Nurses	270,459	17,516	16,688	34,204	11,401	\$96,020
Nursing Assistants	112,125	13,143	6,986	20,129	6,710	\$28,211
Licensed Practical & Vocational Nurses	67,795	6,799	5,410	12,209	4,070	\$51,533
Medical Assistants	88,529	6,198	5,463	11,661	3,887	\$33,685

Source: Centers of Excellence (see Exhibit 1)

**Best Practice**

*Men in Nursing*

The nursing profession is continually challenged with increasing the number of non-traditional students entering the profession, particularly men. It continues to be a predominantly female profession and challenges exist around the stigma of a man entering nursing with the expectation to pursue a career in medicine. However, the percent of men entering the profession is slowly increasing: in 1990, 5.4 percent of working registered nurses residing in California were male, and in 2014, men made up 11.8 percent. The proportion of male nursing faculty is also slim: among 4,000 nursing faculty members, only 11.2 percent were male. That translates into male nursing students having roughly a 1 in 10 opportunity of having a male instructor. More male registered nurses and more male registered nurse role models are needed.

In response, the Health Workforce Initiative has developed the statewide Men in Nursing program to create awareness of the gender discrepancy, increase access to mentors and other resources, and boost the overall number of men entering the nursing profession. Two strategies have been employed. One is the development of Men in Nursing chapters on California Community College campuses. The second is the development and implementation of Men in Nursing workshops and conferences both regionally and statewide. The Health Workforce Initiative strategy is to have a statewide Men in Nursing conference held each November in Southern California; the most recent hosted 94 high school and community college student attendees. Regional workshops are held in the spring as feeders to the main statewide conference. In 2015, regional Men in Nursing workshops were held in the Bay Area (43 attendees), San Diego (163 attendees) and Inland Empire (75 attendees).

The critical one-on-one connections between working nurse and student (and future student) are made at the Men in Nursing conferences. Conference speakers inform and inspire with real-life stories and have made inroads to change. These conferences are open forums, where men are encouraged to speak candidly about their unique nursing school experiences. As a result of these conferences, more men are considering nursing as a profession, they are identifying male nurse role models, and they are becoming empowered and confident, not intimidated.



## Information & Communication Technologies (ICT)/Digital Media

Stephen Wright, Sector Navigator

[www.ict-dm.net/](http://www.ict-dm.net/)

*Encompasses all rapidly emerging, evolving and converging computer, software, networking, telecommunications, Internet, programming and information systems technologies including hardware, software, digital media and services.*

California faces a continuing rapid evolution of technology that renders the in-demand skills of today the minimum skills of tomorrow. Through engagement with college faculty and staff, students, and industry experts, the Information and Communication Technologies/Digital Media sector works to better align existing faculty-developed curriculum with industry needs, especially related to the particular jobs most relevant to the California community college student population. The sector helps identify, verify and promote effective strategies and pathways necessary to build the pipeline of Information Technology workers. It also contributes to accelerated student outcomes by helping colleges acquire the technology to train students remotely, as well as faculty development and system support.

<b>Occupational Employment: Information &amp; Communication Technologies/Digital Media</b>	<b>2015 Jobs</b>	<b>Projected Change</b>	<b>Replacements</b>	<b>Total Openings</b>	<b>Annual Openings</b>	<b>Median Annual Wages</b>
Computer User Support Specialists	76,435	5,385	3,779	9,164	3,055	\$55,592
Network & Computer Systems Administrators	46,838	2,044	2,371	4,415	1,472	\$85,008
Web Developers	27,433	2,152	1,363	3,515	1,172	\$67,273
Computer Network Support Specialists	22,918	790	1,105	1,895	632	\$73,229

Source: Centers of Excellence (see Exhibit 1)

### Best Practice

*Business Information Worker Pathway Gets Statewide LMI Verification by COE*

Working with the Doing What Matters for Jobs and the Economy ICT-Digital Media Sector Team, the Centers of Excellence are developing the labor market information for Business Information Worker (BIW) 1, 2, and 3.

Regional labor market information sheets for BIW 1 are available on the ICT-DM website at <http://ict-dm.net/about-us/press-resource-kits/item/biw-regional-lmi-sheets> and contain data on occupations identified as being relevant to the BIW 1 pathway. Occupations were chosen based on the typical entry-level education required for employment and on-the-job tasks and knowledge areas required to perform the work of the occupation. Labor market information includes current and three-year projected occupational employment, absolute and percentage change, three-year job openings and percentile wages for each of the selected occupations.

Seventy-two colleges (63 percent of California community colleges) are currently participating in the BIW 1 program. BIW 2 and 3 pathways will be announced in 2016 and will offer a series of skills validated for today's business worker.

**Life Sciences/Biotechnology**  
**Sandra Slivka, Sector Navigator**  
[www.calbiotechcareers.org/](http://www.calbiotechcareers.org/)

*Encompasses a group of diverse industries (Agriculture Feedstock and Chemicals, Drugs and Pharmaceuticals, Medical Devices and Equipment, Research Testing and Medical Laboratories, and Bioscience-related Distribution) with a common link – the application of biological scientific knowledge to make products that are useful to humans. This sector in California is concentrated in three regions: San Diego, LA/Orange Counties and the Bay Area where the industry is economically critical to the region and provides excellent workforce opportunities for California’s community college students.*

The Life Science/Biotechnology sector serves the workforce needs of the biotechnology and biosciences community in California. This sector is concentrated in three regions of the state where the industry is economically critical to the region and provides excellent workforce opportunities for California community college students, those regions are San Diego, Los Angeles/Orange Counties and the Bay Area. In order to increase both the capacity of colleges to deliver industry-relevant training and the ability of students to access programs successfully, the Life Sciences/ Biotechnology sector navigator and deputy sector navigators work to align in-demand skills sets with instruction, conduct outreach to businesses and promote industry engagement with statewide educational programs.

<b>Occupational Employment: Life Sciences/Biotechnology</b>	<b>2015 Jobs</b>	<b>Projected Change</b>	<b>Replacements</b>	<b>Total Openings</b>	<b>Annual Openings</b>	<b>Median Annual Wages</b>
Sales Representatives, Wholesale/ Mfg, Technical & Scientific Products	52,046	2,058	3,379	5,437	1,812	\$78,903
Medical & Clinical Laboratory Techs	18,109	1,662	1,514	3,176	1,059	\$43,682
Biological Techs	12,636	743	1,181	1,924	641	\$47,299
Chemical Techs	5,768	451	451	902	301	\$44,138

Source: Centers of Excellence (see Exhibit 1)

**Best Practice**

*Apprenticeships and Third Party Credentials*

In 2014, the Life Sciences/Biotechnology sector, working with the Centers of Excellence, performed a labor market analysis to identify hard-to-fill quality/regulatory and clinical jobs throughout the state. Additionally, the industry has a sense of urgency for these positions, as enforcement of the Food Safety Modernization Act, requires skills provided by these jobs effective Oct. 1, 2015.

To help industry fill these positions, apprenticeships are needed for Microbiology Quality Control Technician, Chemistry Quality Control Technician, Regulatory Compliance Associate, Regulatory Affairs Specialist, Clinical Research Coordinator, Quality Assurance Associate GXP Auditor, Clinical Trail Assistant, Drug Safety Associate, and Clinical Data Coordinator. All these apprenticeships will lead to Certified Quality Inspection Associate (CQIA) certification (American Society for Quality) plus additional certifications specific to the job title.

The apprenticeship model developed for this effort is unique as RX Research Services, Inc. serves as the industry sponsor and finds host companies for the required on-the-job training. The required Related and Supplemental Instruction is delivered through credit and non-credit models.

All apprenticeships were approved by the California Division of Apprenticeship Standards. A California Apprenticeship Initiative New Innovative Program grant was recently awarded to San Diego Miramar College in the amount of \$600,000 for 30 apprentices.

The program has had an exceptionally strong start, as five apprenticeships were placed in 2015 and three apprentices have already received the Certified Quality Inspection Associate certification. The host companies are delighted, and 10 more companies are awaiting apprenticeships. Additionally, a pre-apprenticeship program is being piloted in the Los Angeles/Orange County region to articulate between college programs and these apprenticeships. Partners of the 28 colleges with active biotechnology programs and two nascent community colleges bachelor's degrees programs in bio-manufacturing (Solano and Mira Costa College) will be engaged to provide apprenticeship candidates.

This program builds career ladders and third-party credentials into the current portfolio of California Community Colleges programs and is proving to be an effective and sustainable model of apprenticeships.

## Retail/Hospitality/Tourism “Learn and Earn”

Philip Sutton, Sector Navigator

[www.californiarht.com](http://www.californiarht.com)

*Includes four subsectors: Food Services, Accommodations, Activities and Amusement, and Transportation.*

The Retail, Hospitality and Tourism, ‘Learn and Earn’ priority sector of the Doing What Matters for Jobs and the Economy framework supports these dynamic and critical engines of California’s economy through partnerships and collaborations. Additionally, it develops industry specific workforce training programs coordinated and implemented through its network of regional deputy sector navigators. These sector navigators also work to align community college programs and workforce development resources with the needs of the industry sector through investments in career pathway development from middle school through high school and on to community college and transfer to a four year university. Activities include providing students with work-based learning opportunities in career exploration and internship, the introduction and integration of industry recognized certificates into existing curriculum and professional development for high school and community college faculty in the latest industry trends. During this past year, the sector coordinated the convening of community college and California State University Hospitality faculty for the development of Transfer Model Curriculum that will enable students to easily transfer between community colleges and to the California State University system.

<b>Occupational Employment: Retail/Hospitality/Tourism “Learn and Earn”</b>	<b>2015 Jobs</b>	<b>Projected Change</b>	<b>Replacements</b>	<b>Total Openings</b>	<b>Annual Openings</b>	<b>Median Annual Wages</b>
First-Line Supervisors of Retail Sales Workers	168,078	1,933	15,206	17,139	5,713	\$35,913
Recreation Workers	46,712	3,933	1,755	5,688	1,896	\$23,826
Human Resources Specialists	58,230	2,176	3,313	5,489	1,830	\$65,119
Administrative Services Managers	41,061	1,577	2,058	3,635	1,212	\$89,214
Public Relations Specialists	25,854	1,331	1,101	2,432	811	\$64,458

Source: Centers of Excellence (see Exhibit 1)

### Best Practice

#### *Using Industry Certification to Teach Customer Service Skills*

The Retail/Hospitality/Tourism (RHT) Industry Advisory Committee has repeatedly voiced disappointment in the customer service skills exhibited by today’s entry level employees. Employers are dissatisfied with how the new employees perform in their interactions with both external and internal customers and have asked the community colleges to provide a solution. Also, many high school and community college students have never held a job and do not have work experience to list on an entry level job application. The Guest Service Gold Certificate demonstrates to the employer that the applicant has taken the initiative to complete a customer service skills course.

The Guest Service Gold Training emphasizes the importance of communication and listening skills to connect with authenticity and creativity in their interactions with customers. Once a student successfully completes the seven modules of the training (Authenticity: Keep it Real, Intuition: Read the Need, Empathy: Use Your Heart, Champion: Be a Guest Hero, Delight: Provide a Surprise, Delivery: Follow Through, and Initiative: Make the Effort) they earn designation as a Certified Guest Services Professional.

The Retail/Hospitality/Tourism sector implemented a “Learn and Earn” work-based learning program of Internship Boot Camps that prepare students to put their best foot forward when given an internship opportunity. The



model includes the integration of the American Hotel and Lodging Association's Guest Service Gold Certification training in customer service and the California ServSafe food handlers' certification along with an introduction to appropriate workplace attire and deportment, Furthermore, training includes conflict resolution and the dynamics of working in teams.

In 2014-15, more than 200 high school and community college students participated in the Internship Boot Camps provided by the deputy sector navigators in the Bay Area, Central Valley and Los Angeles/Orange Counties and received their Guest Service Gold Professional Certification from the American Hotel & Lodging Association.

*Businesses that are independently owned and operated, organized for profit and not dominant in their field.*

Entrepreneurs and small business owners are critical to California’s economic development as contributors to innovation and new job growth. The Small Business sector works to improve and expand business and entrepreneurial curriculum that prepares a job-ready workforce and future entrepreneurial leaders. The sector navigator and deputy sector navigators work with business and education leaders to provide professional development to college faculty: create new courses, certificates, degrees, as well as embed small business and entrepreneurship into existing career technical education programs offered by the California Community Colleges.

<b>Occupational Employment: Small Business</b>	<b>2015 Jobs</b>	<b>Projected Change</b>	<b>Replacements</b>	<b>Total Openings</b>	<b>Annual Openings</b>	<b>Median Annual Wages</b>
First-Line Supervisors of Office & Administrative Support Workers	186,363	7,282	13,853	21,135	7,045	\$55,757
Bookkeeping, Accounting & Auditing Clerks	209,253	7,654	6,011	13,665	4,555	\$41,001
Payroll & Timekeeping Clerks	25,787	1,005	1,772	2,777	926	\$43,939
Human Resources Assistants	18,021	367	1,385	1,752	584	\$43,222
Office Clerks, General	385,913	10,566	24,937	35,503	11,834	\$31,290
Source: Centers of Excellence (see Exhibit 1)						

**Best Practice**

*Growing an Entrepreneurial Ecosystem*

As is the case in regions nationwide, the Central Valley/Mother Lode region experiences two seemingly separate, but intricately woven issues:

1. Students are not engaged in learning.
2. Employers cite a lack of soft skills high in their struggles for finding qualified workers.

A solution is an entrepreneurial mindset, with its focus on celebrating and encouraging self-generated ideas and light-bulb ingenuity, to empower both students and workers.

Students learning entrepreneurship are engaged and participation is an active, integral component of the process. It changes how they think about their place in the community. High school dropouts, once held down by defeatism, can realize that their ideas have value and that they matter.

The notion can be distilled into an equation: soft skills from an entrepreneurial mindset + technical skills + work-based learning = 21<sup>st</sup> century worker.

Workers with an entrepreneurial mindset are much more valuable to employers. Entrepreneurism teaches the soft skills employers say are inordinately lacking in today’s pool of available workers. Teaching entrepreneurship creates an “intrapreneuer”, a worker within an organization who thinks outside the box to make systems better.

The Small Business sector of the Central Valley/Mother Lode Region of Doing What Matters for Jobs and the Economy, under the direction of Sector Navigator Lorinda Forrest, is engaging in a host of activities to promote an “entrepreneurial ecosystem.” This is a community focused on entrepreneurial success with entities, including (but not limited to) entrepreneurs, government, schools, students, private sector, private foundations, Chambers of Commerce, Small Business Development Centers, family businesses, inves-

tors, banks, social leaders, research centers, military, labor representatives, lawyers, cooperatives and international aid agencies.

Tactics include:

1. **Central Valley Grows Business**, [www.cvgrowsbiz.com/](http://www.cvgrowsbiz.com/), a resource website for students, educators and the business community for all things entrepreneurship
2. **Eship Educator**, a free curriculum-sharing website community designed specifically for entrepreneur educators
3. Collaboration with California State University at Fresno's Lyles Center for Innovation & Entrepreneurship to grow the Community College Entrepreneur Pathway (CCEP) professional development program for college faculty. Students of CCEP faculty receive expedited articulation to Fresno State's University entrepreneur degree program.
4. Social media presence, with a **Facebook Page** and a **Twitter handle**, both under "Central Valley Grows Business."
5. Student pitch competitions that flowed into a statewide "**Get a Taste of Success**" **Business Plan Pitch Competition**.
6. Educators Cultivating Entrepreneurship Summit. This summit was the impetus for a statewide **Small Business Educators Symposium** planned for Feb 18-19, 2016.
7. Recruiting college presidents to sign the **National Association for Community College Entrepreneurship** President's Pledge for Entrepreneurship, which calls on colleges to create or expand internal & external teams dedicated to entrepreneurship, increase entrepreneurs' engagement in community colleges, engage in industry cluster development, leverage both community college and community assets to spur innovation and job creation, and create buzz and broad exposure of the college's commitment to entrepreneurship

Many of the tactics were recently launched or are in the beta stage. Data is still being collected to gauge outcome. However, some early results include:

- In the first month after launching eShip Educator, it had more than 100 active users.
- More than 125 students participated in the first year's business pitch competitions in the region.
- 34 faculty across the state participated in the Community College Entrepreneurship Pathway training.

In the third quarter of 2014, there were close to 1.4 million non-farm businesses in California, supporting about 16 million jobs.

- Of these, 90 percent or about 1.2 million reported employing fewer than 20 employees. In total, firms with fewer than 20 employees accounted for approximately 3.9 million jobs.
- Almost one million businesses employed fewer than five employees, representing 1.2 million jobs in the state

Source: California Employment Development Department, Labor Market Information Division's Size of Business Data for California, Third Quarter, 2014. Online at: [http://www.labormarketinfo.edd.ca.gov/LMID/Size\\_of\\_Business\\_Data.html](http://www.labormarketinfo.edd.ca.gov/LMID/Size_of_Business_Data.html).

## Appendix B: EWD CCCCCO and Regional Consortia Resources

ECONOMIC REGION	REGIONAL CONSORTIA	
<p><b>Region A: North/Far North</b></p> <p>Northern Inland: Butte, Colusa, Glenn, Lassen, Modoc, Plumas, Shasta, Sierra, Siskiyou and Tehama Counties</p> <p>Northern Coastal: Del Norte, Humboldt, Lake, Mendocino and Trinity Counties</p> <p>Greater Sacramento: El Dorado, Nevada, Placer, Sacramento, Sutter, Yolo and Yuba Counties.</p> <p>Regional Consortia Website: <a href="http://nfnrc.org/">http://nfnrc.org/</a></p>	<p>CCCCO Monitor: Nick Esquivel</p>	<p>Co-Chair: Barbara Maxey 530.228.4443 maxeyba@yahoo.com</p> <p>Co-Chair: Jamey Nye 916.691.7205 NyeJ@CRC.losrios.edu</p>
<p><b>Region B: Bay Area</b></p> <p>North Bay: Marin, Napa, Sonoma and Solano Counties</p> <p>San Francisco/San Mateo/East Bay: Alameda and Contra Costa Counties</p> <p>Silicon Valley: Santa Clara County Santa Cruz / Monterey</p> <p>Regional Consortia Website: <a href="http://baccc.net">http://baccc.net</a></p>	<p>CCCCO Monitors: JoAnne Vorhies, Maureen White</p>	<p>Chair: Rock Pfothenauer 831.479.6482 rock@baccc.net Twitter: @EBworkforce</p> <p>Project Director: Kit O'Doherty 650.560.9798 kitodoherty@gmail.com</p>
<p><b>Region C: Central Valley/Mother Lode</b></p> <p>Central Valley: Fresno, Kern, Kings, Madera, Merced, San Benito, San Joaquin, Stanislaus and Tulare Counties</p> <p>Mother Lode: Alpine, Amador, Calaveras, Inyo, Mariposa, Mono and Tuolumne Counties</p> <p>Regional Consortia Website: <a href="http://www.crconsortium.com/home/">www.crconsortium.com/home/</a></p>	<p>CCCCO Monitor: Jean Claude Mbomeda</p>	<p>Chair: Karri Hammerstrom 559.324.6476 karri.hammerstrom@reedleycollege.edu</p>
<p><b>Region D: South Central</b></p> <p>South Central Coast: San Luis Obispo, Santa Barbara and Ventura Counties</p> <p>Regional Consortia Website: <a href="http://sccrcolleges.org/">http://sccrcolleges.org/</a></p>	<p>CCCCO Monitor: Katie Faires</p>	<p>Chair: Luann Swanberg 805.479.7670 lswanberg2@gmail.com</p> <p>Co-Chair: Diane Hollems 805.683.8281 hollems@sbcc.edu</p>
<p><b>Region E: San Diego / Imperial</b></p> <p>Regional Consortia Website: <a href="http://myworkforceconnection.org">myworkforceconnection.org</a></p>	<p>CCCCO Monitor: Laura Casillas</p>	<p>Interim Chair: Maureen Gevirtz 619.284.5935 mgev@pacbell.net</p>
<p><b>Region F: Inland Empire: Riverside and San Bernardino Counties</b></p> <p>Regional Consortia Website: <a href="http://www.desertcolleges.org/">www.desertcolleges.org/</a></p>	<p>CCCCO Monitor: Katie Gilks</p>	<p>Chair: Julie Pehkonen 951.222.8026 julie.pehkonen@rcc.edu</p>
<p>Region G: Los Angeles/Orange County</p> <p>Regional Consortia Website: <a href="http://www.laocrc.org">www.laocrc.org</a></p>	<p>CCCCO Monitors: Robin Harrington, Carol Jong</p>	<p>Co-Chair - OC: Steven Glycer 714.412.4977 glycer.steven@gmail.com Twitter: @stevenglycer</p> <p>Interim Co-Chair - LA: Nick Kremer 07/21/2015 to 07/21/2016 949.637.4305 nkremer@cox.net</p> <p>Lynn Shaw On sabbatical from 07/2015 to 07/2016 562.708.3803 shaw_lynn@sccollege.edu</p>



## Appendix C: EWD Program Advisory Committee

### WEDPAC Members 2015

#### Van Ton-Quinlivan

Vice Chancellor, Workforce & Economic Development Division,  
California Community Colleges Chancellor's Office Vice Chancellor

#### Oliva Light

Student, San Diego Miramar College Student Representative

#### James P. Mayer

President/CEO, CA FWD  
Economic Development

#### To Be Appointed

Career Technical Education Faculty

#### Walter Di Mantova

Dean, Workforce Policy and Practice Alignment,  
Workforce & Economic Development Division,  
California Community Colleges Chancellor's Office Dean

#### Gary W. Adams

Dean, Innovation and Quality Practices,  
California Community Colleges Chancellor's Office Dean

### EDPAC\* Members 2015

\*Only EDPAC is subject to Bagley-Keene Open Meeting Act 2004

#### Sector Representation

##### Chris Flask

Vacaville Business & Operations Support Senior Manager,  
Operational Excellence, Genentech, Inc.  
Life Sciences/Biotechnology

##### Pat Fong-Kushida

President/CEO, California Asian Chamber of Commerce  
Small Business

##### Ian Kalin

Director of Open Data, Socrata, Inc.  
Information Communication Technology (ICT)/Digital Media

##### Mary Kimball

Executive Director, Center for Land-Based Learning  
Agriculture, Water & Environmental Technology

##### Bernie Kotlier

Executive Director, Sustainable Energy Solutions,  
Labor Management Cooperation Committee, CA  
Energy, Construction & Utility

##### Cathy Martin

Vice President, Workforce, California Hospital Association  
Health Workforce Initiative

##### Dave Meisel

Director, Transportation Services, PG&E  
Advanced Transportation & Renewable Energy

##### Mr. Lynn Mohrfeld

President/CEO, California Hotel & Lodging Association / California Association of Bed and Breakfast Inns  
Retail/Hospitality/Tourism "Learn & Earn"

##### Rob Sanger

Manager, Training Services, California Manufacturing & Technology Assoc.  
Advanced Manufacturing & Advanced Technology

##### Susanne Stirling

Vice President, International Affairs, California Chamber of Commerce  
Global Export & Logistics

### Regional Representation

#### To Be Appointed

SF/San Mateo, East Bay, Silicon Valley, North Bay, Santa Cruz/Monterey

#### Dr. Sunita Cooke

President/Superintendent, MiraCosta Community College  
San Diego/Imperial

#### Dr. Carole Goldsmith

President, West Hills College Coalinga  
Central Valley

#### Dr. Doug Houston

Chancellor, Yuba Community College District  
Northern Inland/Coastal, Greater Sacramento

#### Dr. Sandra Mayo

President, Moreno Valley College  
Inland Empire/Desert

#### Dr. Judy C. Miner

Chancellor of the Foothill-De Anza Community College District  
SF/San Mateo, East Bay, Silicon Valley, North Bay,  
Santa Cruz/Monterey

#### Dr. Raul Rodriguez

Chancellor, Rancho Santiago Community College District  
Orange County, Lead

#### Dr. William (Bill) Scroggins

President & CEO, Mount San Antonio College  
L.A. County

#### Dr. Dianne Van Hook

Chancellor, College of the Canyons  
South Central Coast

### Additional Representation

#### To Be Appointed

Classified/On-line Delivery

#### Jack A. Buckhorn

Business Manager, IBEW Local 551  
Labor

#### Grant Goold

Paramedic/EMT, American River College  
Faculty

#### Dr. Debra Jones

Dean, Career Education Practices,  
California Community Colleges Chancellor's Office Dean

#### Craig Justice

Vice President, Instruction, Irvine Valley College  
CIO Representative

#### Jonathan Kropp

Grants Director, Cuyamaca College  
California Community College Association of Occupational Education

#### Deborah Malumed

Family Medicine Physician, Southern California Permanente Medical  
Board of Governors with Industry Background

#### Tim Rainey

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