Strong Workforce Program

Information & Communications Technologies Regional Advisory Committee Meeting Proceedings

November 3, 2017
SETA – Sacramento Employment and Training Agency

Introduction

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

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

With these objectives in mind Valley Vision is supporting the Los Rios Community College District, in cooperation with Sierra College and the Yuba Community College District, to explore the formation of Regional Advisory Committees for Career Education for multiple industry sectors. The objectives of Regional Advisory Committees are to provide timely information from employers on workforce needs; improve the efficiency of the advisory process for educators and employers, and to broaden opportunities for more systemic engagement across the region. The results of the Regional Advisory Committee meetings will help inform decisions about Career Educations programs and curriculum.

Overview

The Information & Communications Technology (ICT) Regional Advisory Committee meeting held on November 3rd at SETA was the fourth in a series of ten meetings being convened in 2017 and 2018.

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

The Strong Workforce regional advisory efforts are linked to Valley Vision's partnership with the region's four workforce innovation boards on a **Regional Planning** process to help streamline and strengthen employer participation in guiding education and workforce training investments. The regional planning initiative includes a focus on the **Future of Work** and how the digitalization of jobs and skills will impact the region's workforce.

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

The purpose of the meeting was to provide information about and input on:

- Industry trends, occupations, and skills in demand
- Career Education programs and courses, existing and in development
- The process for engaging employers to identify priorities for new Career Education investments
- Design of an efficient and effective system for employer partnerships

The contributions made at the November 3rd meeting provided guidance on activities to help students attain skills and competencies that will meet the needs of our region's employers in current and emerging high skill, high wage, and high demand occupations.

The ICT sector benefits from the formation of a Community of Practice (CoP) that has been working to connect the pathways from K-12 through postsecondary education for ICT careers. The Community of Practice was established with funding from the California Career Pathways Trust which is drawing to a close. Ensuring sustainability of the Regional Advisory Committee process established through the CoP will be important for ICT CE programs and may serve as a best practice model for other CE sectors.

Meeting Proceedings

Career Education Program Showcase

The event began at 8:30 AM with an opportunity for participants to network, and for participating community colleges and high schools to showcase ICT Career Education programs being offered or in development. During the showcase, employers had the opportunity to provide input and validate the need for new CE curriculum in development. (See Page 5 for the full meeting agenda)

Information and Communication Technology Cluster Definition

Information and Communications Technology (ICT) is the convergence of computer networking and telecommunications. The ICT umbrella organizes technologies related to telecommunications, computing, networks and other high–tech fields. ICT job functions impact all businesses, regardless of industry type or size of employment. However, there are a core set of industries primarily engaged in ICT activities that can be used to define the industry cluster. Subsectors include:

- *ICT Component Manufacturing*
- *System Programming, Design, Management and Training Services*
- *System Repair and Maintenance Services*
- *Telecommunication/Data Processing Center*

Source: Center of Excellence

Introduction, Labor Market Data, and Keynote Presentations

The Advisory meeting began with a welcome and an overview of the agenda and a recap of the purpose of the meeting. Laura Coleman, Statewide Director for the Center of Excellence for Labor Market Research hosted at Los Rios Community College District, followed introductions with an overview of the Strong Workforce Program and a presentation of ICT labor market trends in the Greater Sacramento Region. Keynote speaker, Mac Clemens, Chief Executive Office of Digital Development, gave insight on his personal experiences working with youth and technology, the growing trends he has seen in his industry, and what his expectations are for the future. He also spoke about what he looks for in hiring employees, and why he participates as an advisory committee member.

Following the presentations, participants, comprised of educators and industry partners, split into

breakout groups and discussed industry challenges, barriers, and current projects. (The list of participants can be found on Pages 6 and 7). The intention was to brainstorm these challenges and barriers, and backwards map a project that would be appropriate to provide relevant, hands-on experience for high school or college level students. Participants were guided through a facilitated process to discuss and generate project ideas in one of three breakout topic areas:

- Cyber Security/Networking
- Software Development/Web Development
- Office Applications/ Big Data and Data Analytics

Each station had a prompted question(s) that led the discussion. Participants were asked to generate ideas for projects related to current ICT sector challenges that could be solved by involving high school, or college-level students, and to identify what skillsets would be critical to achieving success. One project idea from each breakout group was selected to be reported back to the full group. The feedback and comments provided by participants are summarized below.

Summary of Breakout Sessions

Breakout 1: Office Applications/ Big Data and Data Analytics

Three groups were working on the data analytics breakout topic. The issue presented was that there is a significant need to increase partnership engagement with industry employers. Specifically, there is a need for projects that provide a question with multiple data sets, perhaps unrelated, that allow students to derive information and respond back to the industry partners. The needed technical skills identified skills would include knowledge revolving around statistics and understanding programming platforms. Command of softer skills such as communication, service mentality, critical thinking, and ability to utilize a variety of communication styles that can address individuals in several different areas of expertise were other key skills identified. *See the appendices to explore more of this group's project and others that were discussed.*

Breakout 2: Cyber Security & Networking

There were many robust suggestions about what issues are affecting Cyber Security in today's world. The conversations ranged from the rapidly changing landscape of security to technology changes advancing towards cloud applications. One project idea generated dealt with security in the healthcare industry. Healthcare workflow is a highly public workplace and can be difficult to secure. The question proposed was how to allow doctors, nurses, or hospital administration to switch between private patient information when the environment itself is highly public. This patient privacy issue was determined to be a good student problem to solve because it encompasses entry-level issues and covers a broad set of skill requirements including solid processing skills. The final objective would be to generate a report that would outline a solution, be tested in an "out of the loop" test environment, presented as a new workflow plan to hospital leadership, and then implemented in training. The technical skills identified by the group were specific to hospital software systems, understanding log-in systems, coding, and programming, in addition to medical world knowledge. Additionally, the required softer skills related to understanding how staff spends their days working, desktop support, process mapping, and verbal and written communication. *See the appendices to explore more of this group's project and others that were discussed.*

Breakout 3: Software/Web Development

During this group's discussion, participants determined that traffic and pedestrian flow within a large city would be an ideal entry-level project issue for an incoming workforce. It is common knowledge in this industry that with a growing population, especially in the Sacramento Region, there is a need to create more efficient traffic flow for both pedestrians and vehicles. There are magnets under the street, but they are not designed to handle or manage traffic control, and there is potential for creating sensors to monitor and guide change on this issue, which could hypothetically fall under other smart city initiatives. Sensors to manage traffic and pedestrian flow would mean investing in pull sensors, sensors within the car, and sensors in street cameras, light poles, and traffic lights. The group identified technical skills needed in programming, hardware testing, data analytics, and cloud technologies. Softer skill abilities were indicated in project management, cultural/regional awareness, and communications. Industry Partners include: government, law enforcement, and private sector systems integrators with experience in large-scale projects. *See the appendices to explore more of this group's project and others that were discussed.*

Closing Remarks + Next Steps

Report back from breakout sessions

Following the breakouts, participants reconvened as a full group. Each breakout group selected one specific project idea to present to the overall group to share the ideas generated during the breakout sessions.

Align Capital Region

Building upon a deeper discussion regarding the issues the sector is facing and some potential project ideas identified by the breakout groups, what are the next steps needed to move towards the implementation phase and to reach each project's ultimate goals? Dr. Coleen Morehead with Align Capital Region (ACR) briefly explained the collective impact process employed by ACR and the formation of Alignment Teams (or A-Teams) to move forward from issue identification to problem solving and collective action. Dr. Morehead encouraged participants to contact her (Email: Coleen@aligncap.org, Office: 916-923-9825) for information on Align Capital Region or to learn more about how to create and/or engage with established A-Teams.

Sacramento City College New Certificate Program Proposal

Gabriel Meehan-Associated Vice President of Instruction with Sacramento City College looked for advisory committee support for the introduction of a new certificate program. Certification Name: CE Data Science. Description of Certificate Program: Short-term certificate 18-19 units. Six courses. The program is for students that aspire to master skills in data science and Big Data analysis. Students will learn to apply Big Data to make effective data-driven decisions. Group decision: Supported.

Closing Comments

The importance of 21st-century skillsets will become more apparent with students looking to join the workforce in the upcoming years. Ongoing partnerships between educators and employers will be needed to build up a talent pipeline that meets the rapidly changing needs of the workforce of the future. Additionally, there is an obvious advantage holding Regional Advisory Committee meetings as it provides an opportunity for broad regional engagement, the validation of new ideas, discussion of ongoing projects, possible opportunities for industry leaders as well as open discussion of potential projects and programs.

Meeting Agenda

Information and Communications Technologies
Regional Advisory Committee Meeting
November 3rd, 2017 – 8:00 AM – 11:30 AM
SETA, 925 Del Paso Boulevard, Sacramento

AGENDA

8:00 – 8:30 AM Registration + Career Education Showcase
Opportunity to learn about ICT career education pathways and programs offered at community colleges and high schools. Light breakfast provided

8:30 – 8:45 AM Welcome **+ Meeting Overview**
Trish Kelly, Managing Director, Valley Vision
Jared Amalong, CRANE Coordinator, Sacramento County Office of Education

8:45 – 9:10 AM Strong Workforce Overview + ICT Labor Market Data
Laura Coleman, Statewide Director, Centers of Excellence, Los Rios Community College District

9:10 – 9:30 AM Keynote Presentation
Mac Clemmens, Chief Executive Officer, Digital Deployment

9:30 – 10:55 AM Breakout Session Discussions
Jared Amalong, CRANE Coordinator, Sacramento County Office of Education

Breakout Discussions
Networking &Cyber Security (Board Room)
Software/Web Development (Olympus Room)
Big Data & Office Applications (Redwood Room)

11:00 – 11:30 AM Report Out from Breakout Discussions + Next Steps + Closing Remarks

Participant List

First Name	Last Name	Company
Scott	Adrian	City of Roseville
Jared	Amalong	Sacramento County Office of Education
Kevin	Anderson	Sacramento City College/ Davis High School
Tina	Angell	Pathways iCARE (Placer County Office of Education)
Jorge	Avila	California Department of Technology
David	Bayne	Pioneer High School
John	Bjerke	Cisco Networking Academy
Chris	Bombard	Western Placer Unified School District
Elisabeth	Bystrom	UC Davis Extension
Shameek	Chapman	Sacramento Employment & Training Agency (SETA)
Patricia	Clark	College and Career Academy Support Network (CCASN) / Graduate School of Education
Mac	Clemmons	Digital Deployment
Laura	Coleman	Los Rios Community College District- Center of Excellence
John	Cronin	Florin High School
Tammy	Cronin	Valley Vision
Terry	Daffin	KAI Partners
Clay	Dagler	Franklin High School
Linda	Dewberry	Elk Grove Unified School District
Michael	Dixon	Sacramento Community College
Randall	Fairchild	Florin High School
Markus	Geissler	Cosumnes River College
Rhonda	Grey	Los Rios Community School District
Terri	Griffin	Placer County Office of Education
Melissa	Hale	Cosumnes Oaks High School
Paula	Hanzel	Sacramento City Unified School District/Elk Grove Unified School District
Katy	Hensley	Sacramento City Unified School District
Todd	Higley	Antelope High School (Roseville Joint Unified High School District)
Jerry	Huang	Sacramento New Technology High School
Erica	Kashiri	Office of Mayor Darrell Steinberg
Trish	Kelly	Valley Vision
Roy	Kim	Sacramento Employment & Training Agency (SETA)
Emma	Koefeod	Valley Vision
Kathy	Kossick	Sacramento Employment & Training Agency (SETA)
Cindy	Lascola	Monterey Trail High School, Elk Grove Unified School District
Doug	Lewin	Folsom - Cordova School District

Sheley	Little	Sacramento City College
Alex	Lowrie	UC Davis
Elaine	Lytle	Yolo County Health and Human Services Agency
Greg	McCormac	Los Rios Community College District
Theresa	McEwen	College & Career Academy Support Network (CCASN)
Gabriel	Meehan	Sacramento Community College
Coleen	Morehead	Align Capital Region
Wang	Ng	Sacramento City College, Electronics Department
Nghia	Ngo	Intel Corp.
Jason	Noonan	Glen Edwards Middle
Annette	Nylander	Sierra College
Ronald	Peters	Monterey Trail High School
Melissa	Prinzing	Computer Information Systems Department, Sierra College
Lucie-Anne	Radimsky	Valley Vision
Lynette	Rodriguez	Elk Grove Unified School District
Christopher	Shuping	Franklin High School
Rachelle	Smith	Sierra College
Alex	Torres	Sierra College
James	Town	Sacramento City College
Maria	Trappe	San Juan Unified School District
George	Usi	SACTECH
Mike	Vocker	Elk Grove Unified School District
Sharon	West	Hewlett Packard Enterprise
Cameron	Whitfield	Folsom Lake College
Alphonse	Wilfred	Sacramento Promise Zone
Lily	Xu	Sacramento City College
Skip	Brewer	Elk Grove Unified School District
Wendy	Ghyselinck	Woodcreek High School, Roseville Joint Unified High School District
Greg	Ramseth	Placer Union High School District
Thomas	Stargaard	Placer Union High School District
Charles	Rehowls	Division of Apprenticeship
Ron	Ellis	
Staci	Teegarden	Division of Apprenticeship
Bob	Johnson	Consultant
Samantha	Acosta	New Technology High School
Jordon	Doose	New Technology High School
Aravind	Kavnam	ACM
Lynn	Plocher	Sacramento Unified High School District CTE Coordinator