



Getting It* Done

With Centers of Excellence

In the News: Allied Healthcare

In the Central Region, the healthcare industry is a major economic contributor, providing over 21 million dollars in revenue and wages in 2006, and yet, like the rest of the state, and the nation, the region's employers are experiencing a severe shortage of qualified allied healthcare professionals. Allied healthcare occupations are a vital component of the health care system and account for nearly 60 percent of all health care occupations. In a recently released environmental industry scan, the Center of Excellence hosted at Modesto Junior College identified a clear and urgent need for qualified allied healthcare personnel in the region and suggests significant opportunities exist for colleges to respond to this workforce need.

**"Too few Central Valley
workers trained for health-
care demand, report says"**
— *The Modesto Bee*

Recognizing the looming "potential 'crisis'" associated with the demand for qualified healthcare workers, the Modesto Bee newspaper picked up on the release of the Center's newest scan, profiled the report, and interviewed its author, Center Director Michelle Marquez, for an article in the March 18, 2008 edition. With more than 85,000 subscribers, the Modesto Bee's coverage of the allied healthcare scan exponentially increased the report's visibility in the region as well as underscoring the importance of community colleges in workforce education and training.

The crisis referred to in the environmental scan, and in the Modesto Bee article, is a result of a combination of factors, including an aging workforce, limited availability of resources to train the workforce, a shortage of allied health educators and clinical sites, and evolving occupation-specific skills. Medical-related occupations are constantly challenged to keep up with rapidly changing technology requiring advanced training or re-training. Additionally, many occupations now require certification or licensure that was not required in the past.

Combined, the allied healthcare occupations in the report are projected to add almost 12,000 new jobs to the region by 2014, an increase of 33 percent over current levels of employment. In addition, the region will face nearly 17,000

Continued on back page...

VOLUME **5**
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Inside:

**Inland Empire
Employers Take
Medical Device
Manufacturing
to Heart 2**

**Bay Region Medical
Device Workforce
Study 2**

**Bright Opportuni-
ties for Colleges
to Meet Solar
Industry Needs 3**

**Customized
Products for
Decision Making.. 3**

**Centers of
Excellence
Launch New
Website! 4**



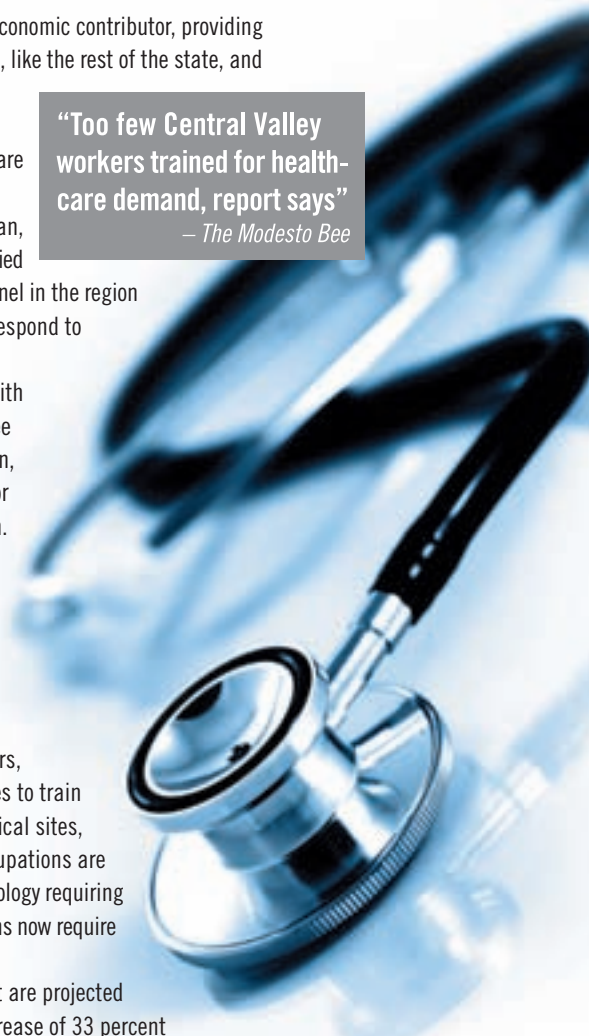
***Business Solutions & Workforce Training**

*Delivered Through
Community Colleges
and Their Partners*

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Administrator, Kay Ferrier
Dean, Economic Development
State Chancellor's Office



Inland Empire Employers Take Medical Device Manufacturing to Heart

Bay Region Medical Device Workforce Study

Key Findings Presented to Bay Area Colleges and Employers

Stents coated with anti-clogging drugs are one of the many new medical devices designed and manufactured with technology that make devices smaller in combination with biotechnology and pharmacology.

These new technologies, among others, will create an 18 percent increase in employment within the medical device industry in the Bay Region, according to a workforce study conducted by the Centers of Excellence (COE) at San Francisco Bay and Greater Silicon Valley. This will result in an additional 1,800 workers over the next 12 months.

The year-long medical device workforce study surveyed 100 employers in the ten-county Bay Region and examined eight technician-level occupations. The study's key findings of were presented by COE Directors John Carrese and Jennifer Oliver in December, 2007 to the Industry Advisory Board of the California Applied Biotechnology Centers (CalABC), Bay Area, at a meeting held at Skyline College in San Bruno. Event attendees included Bay Region community college faculty, the non-profit trade association BayBio, and local biotechnology firms Amgen, Applied Biosystems, Cell Genesys, Rainin Instrument LLC, Abbott, Solstice Neurosciences, and Genencor.

Over 80 percent of employers surveyed indicated difficulty in recruiting employees with appropriate education and training. Two-thirds of employers said they are interested in on-site customized training for their current employees.

Given the strength of the medical device industry in the Bay Region, community colleges and CalABC can play a major role in supplying the skilled workforce needed by partnering with industry associations, public workforce agencies, and local employers.

Valentine's Day was made even sweeter for the Inland Empire Center of Excellence (COE) as they held a first-time partnership event to link the medical device manufacturing industry with the 11 community colleges in their region. Panel representatives included Jim Budimlya with OCTANe, a non-profit corporation composed of biomedical and technology companies, entrepreneurs, venture capitalists, and others to drive innovation and accelerate business growth; Jeff Riddell with Luxfer Gas Cylinders of Riverside; and Tony Casadonte of Abbott Vascular, a manufacturer of devices for vascular health – hence the tie to Valentine's Day!

Over 30 participants from community colleges, regional occupational programs, workforce investment boards, and industry came together at the partnership event to discuss future workforce needs. Kevin Fleming, Director of the Inland Empire COE, presented findings from a study of the medical device industry recently conducted in the Inland Empire. Some of the presentation highlights included:

Companies

California is home to approximately 4,100 companies that fall within the scope of the medical device industry. Of these, more than 1,900 are considered biotechnology support firms; medical and diagnostic laboratories make up another 1,700 firms; and close to 500 companies are in the advanced manufacturing industry sector. The Inland Empire Region is home to 439 of these companies, according to InfoUSA data.

Employment Levels and Job Distribution

California's medical device industry accounted for 100,500 jobs in 2007. Employment in the industry is diverse: 47.8 percent of jobs are in the



Kevin Fleming, Director of the Inland Empire COE



Panel members (left to right): Jim Budimlya with OCTANe, Jeff Riddell of Luxfer Gas Cylinders, and Tony Casadonte of Abbott Vascular.

advanced manufacturing sector, 24.2 percent in medical and diagnostic laboratories, and 28 percent in biotechnology support. Compared to the state levels, concentrations of advanced manufacturing employment is highest in the Inland Empire Region.

Employment Projections

Over the ten-year period from 1996 to 2006, medical devices industry employment within California increased 13.6 percent, resulting in more than 12,000 new jobs. Statewide, the 500 medical devices employers surveyed expected to increase their workforce by 9.2 percent over the next 12 months, yielding upwards of 9,200 new jobs. In the Inland Empire, regional employers surveyed projected a slightly higher growth rate, 10.1 percent over the next 12 months.

Occupations Surveyed

The industry study conducted by BW Research on behalf of the Centers of Excellence focused on eight occupations within medical devices employment for which the training and required education is relevant for high

schools and community colleges:

- Assemblers and/or Electrical & Electronic Assemblers
- Clinical Trials and Regulatory Assistants and/or Technicians
- Engineering and Operations Technicians
- Inspectors, Testers and Graders
- Quality Control Technicians
- Research and Development Technicians
- Safety, Hazmat, and Environmental Controls Technicians
- Supervisors/Managers of Technicians and Maintenance Workers.

Interpersonal communication skills, technical competence, and creative problem-solving were listed as the top skill deficiencies among recent hires. The highest growth percentages expected in the next 12 months are for Clinical Trials and Regulatory Assistants, and Research and Development Technicians.

Panel representatives Luxfer and Abbott have internships programs but have not linked with community colleges for these positions. All panel representatives concurred with the study results in reference to skill deficiencies and the estimated growth need. However, Jeff Riddell with Luxfer Gas Cylinders of Riverside also commented: "We have an aging population, a population that will require more medical care and products, therefore demand for workers in medical device manufacturing will be very high by 2014-2015, even higher, I believe, than projected through the BW Research study." Tony Casadonte added, "The Inland Empire is the only reasonably metropolitan connected area where we could viably do this type of advanced manufacturing." Growth in this sector looks good indeed.

Bright Opportunities for Colleges to Meet Solar Industry Needs

“California’s fascination with solar power has created thousands of jobs in the state and will probably add thousands more, according to a new survey...”

—San Francisco Chronicle (May 10, 2008)

Led by the San Francisco Bay and Greater Silicon Valley Centers of Excellence, in collaboration with industry and research partners, a recent study conducted with California solar-related firms shows a dramatic projected employment increase of 29 percent within the next 12 months, resulting in the need for more than 5,000 new employees.

In April, the San Francisco Bay and Greater Silicon Valley Centers of Ex-



“Solar industry’s rapid growth leaves shortage in work force”

—Silicon Valley/San Jose Business Journal (May 16, 2008)

cellence released a combined regional environmental scan on the solar industry, based on the study’s findings. Response to the scan was immediate and impactful, resulting in several news articles and interviews.

Preliminary findings show that

there are huge opportunities for community colleges to respond to this workforce need:

- Seventy percent of surveyed employers plan to hire more employees over the next 12 months.
- Employers indicate difficulty in

hiring for all five occupations studied: PV Installer; Solar Thermal Installer; Sales Representative or Estimator; Solar Designer/Engineer; Installation Manager/Project Foreman.

- Employers have great interest in education and training programs that can be developed by community colleges.

Three additional Centers of Excellence are producing environmental industry scan reports on the solar industry. These scans will focus on regional data for the following areas: Southern California, Los Angeles County, and the greater Sacramento area. As they are released, the reports will be accessible on the COE website at: www.coecc.net.

Customized Products for Decision Making

Besides producing Environmental Scan reports, the ten regional Centers of Excellence (COE) are now providing customized information and maps designed to help colleges make informed decisions about starting or adapting new programs, seeking funds, or strengthening relationships with industry and workforce organizations.

Here are a few examples of the reports that the Centers of Excellence can now create by request:

GIS Analysis – Regional maps showing the **clustering** of businesses in a specified area surrounding a community college or other specified area. Or focus on **trade** or **study** areas with maps showing industry and businesses

by region, county, zip code, or another specified area. **Trend analysis** maps display the growth trends of a specified industry from 1998 forward. *Example: Lake Tahoe Community College utilized GIS trend analysis to study computer programming and web design services.*

Employer Databases – Custom lists of California companies by industry and location, including sales volume, number of employees, address & phone number. *Example: Los Rios Community College District’s Small Business Development Center (SBDC) re-*

“...custom information and maps designed to help colleges make informed decisions...”

quested small business listings and a community demographic profile from their regional COE.

Demographics – Integrated community profiles including Census data, lifestyle, and life stage into

reports and studies. *Community demographics are often needed for grant proposals.*

Strategic Planning – Industry and occupational profiles incorporating employment projections, earnings, demographics, and economic impact. *Example: Inland Empire’s COE provided an occupational profile report on Social and Human Services Assistants to Cerro Coso College.*

To access these services, contact the Center nearest you. Information on Center locations and Directors can be found online at www.coecc.net. Over 50 Environmental Scans and related publications are also available at www.coecc.net.

Allied Healthcare Occupations

Continued from front...

related replacement jobs. The occupations profiled include emergency medical technicians and paramedics; massage therapists; medical assistants; pharmacy aides and technicians; physical therapist aides and assistants; veterinary assistants and technologists, among others.

The Center of Excellence analyzed labor market information from a variety of sources and interviewed businesses to validate the forecasted job growth and related information. The Center's research found that many allied

healthcare personnel are trained through proprietary schools. However, employer interviews indicate an overwhelming preference for students

trained by community college programs. In a recent survey, 95 percent of businesses and organizations prefer employees trained at a community college workforce education and training program.

Several employers expressed they will leave a job unfilled rather than hire from a job pool that does not contain community college graduates.

"Other findings of the report show that a large number of allied health care workers in the Central Valley obtain their credentials through private, for-profit schools, but employers prefer to have community college graduates because they require less on-the-job training."

— The Modesto Bee

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Who are the Centers of Excellence?

The ten regionally-based Centers of Excellence conduct industry-validated environmental scanning on high growth, emerging, and economically-critical industries and their related workforce and occupational needs.

Our Mission

The Centers of Excellence, in partnership with business and industry, deliver regional workforce research customized for community college decision making and resource development.

Our Vision

We aspire to be the premier source of regional economic and workforce information and insight for community colleges.

Centers of Excellence Launch New Website!

This spring the Centers of Excellence are launching a new website! Located at www.coecce.net, the new website is a knowledge portal for economic and workforce development professionals, faculty, and administrators to use in making informed decisions and creating new avenues of resource development.

The new COE website will showcase the workforce information that colleges can access or request of the Centers, the industry studies already available, related publications specific to high growth industries, and more!

Our regional workforce research gives community colleges a competitive advantage. Colleges will find the information and tools on the new COE website useful resources for:

- Creating new and relevant programs and curriculum
- Pursuing grants that lead to funding
- Understanding workforce skill gaps from an industry perspective
- Connecting to business and industry partners

Visit our new website at www.coecce.net and learn more about how we can help you!