Using GIS and Environmental Scanning to Forecast Industry Workforce Needs

Kevin Fleming
Elaine Gaertner
Today's Presentation

About the Centers of Excellence

Environmental Scanning

Use of GIS

Case Studies

Services & Reports

Results & Impacts

American Association of Community Colleges
Economic & Workforce Development Program

California Community Colleges Board of Governors

State Chancellors Office
California Community Colleges
Jack Scott, State Chancellor

Vice Chancellor
Economic & Workforce Development
Jose Millan, Vice Chancellor

Career Technical Education Unit

Economic & Workforce Development

Health Care
International Trade Development
Multimedia & Entertainment
Small Business Development
Workplace Development

Advance Transportation & Energy
Applied Biological Technologies
Applied Competitive Technologies
Center of Excellence Initiative
Environmental Technologies
Centers of Excellence
Mission

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

- San Francisco Bay
- Greater Silicon Valley
- Los Angeles County (2)
- Orange County
- Inland Empire
- San Diego & Imperial
- Central Valley
- South Central
- Far North & Greater Sacramento
What Colleges Need to Know . . .

- When should I start a new program?
- Which local college would be best to host this program?
- When should I NOT start a new program?
- Should I revise or repackage a program?
- What industries or jobs are new, emerging, or changing?
Environmental Scanning

- Industry Needs
- Macro & Local Economy
- Competitive Contexts
- Social, Technological, Economic Factors
- Political/legal Influences
- SWOT
- College Capabilities
- Demographics
Environmental Scanning

Approach

- Identification
- Qualification
- Systematic research
- Industry validation
- College internal scan
- Gap identification
- Recommendations to close gaps
- Bridge partnerships
Industry Validation

- Primary research
- Informal meetings
- Structured interviews
- Industry focus groups
- Business surveys
- Advisory groups
Our Products: Environmental Scans

The data supplied by the Center of Excellence was instrumental in the determination of the direction Cerro Coso College’s strategic plan. Using your data, we retired two programs and started three new ones.

Valerie Karnes, Dean
Cerro Coso College, CA
What’s in a Report?

- Regional demographics
- Industry overview
- Employers (size and scope)
- Wage data
- Occupational outlook
- Labor market projections
- Skills and training requirements
- Barriers to employment
- Existing college programs/initiatives
- Other programs/models/curriculum
- Associations serving the industry
- GIS maps
- Industry/association contact information
- Workforce challenges (industry perspective)
- Recommendations for community colleges
- Occupational profiles
Roll Out of Findings

- Reports distributed to industry partners and colleges
- Webinars
- Presentations
- Conferences
- Bi-monthly e-newsletter
- Facilitated industry and college partnership meetings
- COE website
What’s New

HVAC Occupations
California’s long-term energy goals call for transforming heating, ventilation and air conditioning (HVAC) to ensure optimal energy performance for the state’s climate. By 2014, over 20,000 people will be employed in these occupations in Los Angeles County. More +

Water Efficiency Technology
A recent survey of plumbing employers in the Greater Sacramento area revealed that nearly half (48%) will add new employees while more than one-third (38%) expect to stay the same size in the next 12 months. More +
Environmental Scans

Objective Data for Informed Decision Making

Welcome Lisa Lewenberg. (If you are not Lisa Lewenberg, please click here to register.)

The initial list of scans is sorted by year (newest scans first) and then title. Roll-over the scan titles for a brief description.

First  Previous  Next  Last  View All

<table>
<thead>
<tr>
<th>Title</th>
<th>Area</th>
<th>Release Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Green Economy Workforce Study</td>
<td>Central Valley</td>
<td>Dec 2008</td>
</tr>
<tr>
<td>Heating, Ventilation, and Air Conditioning Occupations</td>
<td>Los Angeles</td>
<td>Oct 2008</td>
</tr>
<tr>
<td>Survey of Game Development Programs</td>
<td>California - Statewide</td>
<td>Oct 2008</td>
</tr>
<tr>
<td>Water Efficiency Technology</td>
<td>Greater Sacramento</td>
<td>Oct 2008</td>
</tr>
<tr>
<td>Carpenters</td>
<td>Central Coast</td>
<td>Sep 2008</td>
</tr>
<tr>
<td>Emerging Trends in Game Development</td>
<td>California - Statewide</td>
<td>Sep 2008</td>
</tr>
<tr>
<td>Allied Health Occupations</td>
<td>Inland Empire</td>
<td>Jul 2008</td>
</tr>
<tr>
<td>Information and Communications Technology</td>
<td>Orange County</td>
<td>Jul 2008</td>
</tr>
<tr>
<td>Allied Health</td>
<td>Los Angeles</td>
<td>Jun 2008</td>
</tr>
<tr>
<td>Dental Offices in Los Angeles</td>
<td>Los Angeles</td>
<td>Jun 2008</td>
</tr>
</tbody>
</table>
Partnership Successes

- American Wind Industry Association
- American Hospital Association
- California Association of Local Economic Developers
- California Coalition for Construction in the Classroom
- California Employment Development Department
- California Labor and Workforce Agency
- California Solar Energy Industries Association
- Environmental Systems Research Institute
- Economic Modeling Specialists, Inc.
- Kaiser Permanente
- Lawrence Berkeley Labs
- Pacific Gas and Electric
- International Game Developers Association
- Entertainment Economy Institute
Tools We Use

- Environmental Systems Research Institute (ESRI) ArcGIS & Business Analyst
- Economic Modeling Specialists, Inc.
- InfoUSA data
- Public Data Sources (US Census, CA Labor Market Information Division, Quarterly Census of Employment & Wages, O*net, US Dept of Commerce)
Geographic Information Systems (GIS)

- GIS is the visual display of any geographically referenced information.
- GIS allows us to view, understand, question, interpret, and visualize data in many ways that reveal relationships, patterns, and trends in the form of maps, globes, reports, and charts.
- GIS is quickly understood and easily shared.
Which is Easier to Interpret?

GIS maps help others learn & understand data.
ESRI’s ArcGIS with Business Analyst

- Uses private industry data, with recognized reliability nationwide
- Provides population, income and other demographics to profile the regional economy
- Creates trade areas to analyze industry growth trends and clusters
- Customized by ESRI to isolate industry size & growth to the 8th level of North American Industry Classification System (NAICS)
What is NAICS?

- North American Industry Classification System
- Replaced the U.S. Standard Industrial Classification (SIC) system
- Classifies businesses with similar production processes in the same industry
- 2, 3, 4, 6, or 8 digit level - to increase specificity in industry classification
CONSTRUCTION (NAICS Code 23)

236 Construction of Buildings
   236115 New Single Family Housing Construction
       23611502 Construction-Building Contractors
       23611504 Gazebo Builders
   236118 Residential Remodelers
       23611821 Patio & Deck Builders
       23611827 Solar Rooms & Addition

237 Heavy & Civil Engineering Construction
   237310 Highway, Street & Bridge Construction
       23731014 Road Oiling
       23731020 Stripe Painters
   237110 Water & Sewer Line and Related Structures Construction
       23711014 Water Main Contractors
       23711022 Water Pollution Control
Manufacturing Firms in Top Ten Industries by Projected Employment
(10 Miles of El Camino College), 2007

Legend
Firms in Top Growing Industries
Number of Employees:
- 1 - 25
- 26 - 50
- 51 - 150
- 151 - 1000
- 1001 - 3000
- El Camino College

El Camino College
10 Mile Ring
Los Angeles County

0 0.5 1 2 3 4 Miles
Dental Offices within a 60 Minute Drive Time of Community Colleges in the Northern Inland Region
Customized Cluster Analysis:
Aerospace Manufacturing

Aerospace Manufacturing Businesses in Southern California, 2008

Legend
- Aerospace Manufacturing Businesses (n=4,062)
- Southern California Counties
- Runway System (Color)

Source: Center for Economic Development, California Community Colleges Chancellor’s Office. Software and data provided by ESRI, Inc.
Aerospace Manufacturing Businesses in Southern California, 2008

Legend
Aerospace Industries Employment by County
2008 Jobs
- < 1,000
- 1,001 - 5,000
- 5,001 - 10,000
- 10,001 - 25,000
- 25,001 - 50,000

Aerospace Industries Revenue by County
2008 Sales, Million
- $1 - $50M
- $50M - $250M
- $250M - $1,000M
- $1,000M - $5,000M
- $5,000M - $13,000M

Source: Centers of Excellence, California Community Colleges Chancellor’s Office. Software and data provided by ESRI, Inc.
Aerospace Manufacturing Businesses in Southern California, 2008

Legend
- Aerospace Manufacturing Businesses (n=4,063)
- Southern California Counties
- Freeway System (State)

Source: Centers of Excellence, California Community Colleges Chancellor's Office. Software and data provided by ESRI, Inc.
### TABLE 1: AEROSPACE INDUSTRIES IN TEN-COUNTY SOUTHERN CALIFORNIA REGION, 2008
(Sorted by Employment)

<table>
<thead>
<tr>
<th>NAICS</th>
<th>Industry Description</th>
<th># of Businesses</th>
<th># of Employees</th>
<th>2007 Sales, $'000</th>
<th>Earnings per Worker</th>
</tr>
</thead>
<tbody>
<tr>
<td>334511</td>
<td>Search, Detection, Navigation, Guidance, Aeronautical, and Nautical System and Instrument Manufacturing</td>
<td>251</td>
<td>24,923</td>
<td>$7,630,455</td>
<td>$103,079</td>
</tr>
<tr>
<td>332710</td>
<td>Machine Shops</td>
<td>2,825</td>
<td>24,638</td>
<td>$4,082,353</td>
<td>$47,303</td>
</tr>
<tr>
<td>336413</td>
<td>Other Aircraft Parts and Auxiliary Equipment Mfg</td>
<td>145</td>
<td>16,691</td>
<td>$3,364,737</td>
<td>$61,918</td>
</tr>
<tr>
<td>336411</td>
<td>Aircraft Manufacturing</td>
<td>58</td>
<td>14,067</td>
<td>$7,431,520</td>
<td>$80,978</td>
</tr>
<tr>
<td>488190</td>
<td>Other Support Activities for Air Transportation</td>
<td>328</td>
<td>5,941</td>
<td>$1,066,301</td>
<td>$51,597</td>
</tr>
<tr>
<td>334519</td>
<td>Other Measuring and Controlling Device Mfg</td>
<td>77</td>
<td>4,076</td>
<td>$803,600</td>
<td>$57,422</td>
</tr>
<tr>
<td>332510</td>
<td>Hardware Manufacturing</td>
<td>85</td>
<td>3,183</td>
<td>$757,361</td>
<td>$46,328</td>
</tr>
<tr>
<td>332722</td>
<td>Bolt, Nut, Screw, Rivet, and Washer Manufacturing</td>
<td>57</td>
<td>2,580</td>
<td>$607,780</td>
<td>$59,323</td>
</tr>
<tr>
<td>332721</td>
<td>Precision Turned Product Manufacturing</td>
<td>96</td>
<td>2,002</td>
<td>$325,155</td>
<td>$43,031</td>
</tr>
<tr>
<td>336412</td>
<td>Aircraft Engine and Engine Parts Manufacturing</td>
<td>22</td>
<td>1,707</td>
<td>$784,890</td>
<td>$81,905</td>
</tr>
<tr>
<td>336360</td>
<td>Motor Vehicle Seating and Interior Trim Manufacturing</td>
<td>15</td>
<td>1,373</td>
<td>$636,110</td>
<td>$25,615</td>
</tr>
<tr>
<td>336419</td>
<td>Other Guided Missile and Space Vehicle Parts and Auxiliary Equipment Manufacturing</td>
<td>21</td>
<td>1,237</td>
<td>$134,655</td>
<td>$84,437</td>
</tr>
<tr>
<td>339993</td>
<td>Fastener, Button, Needle, and Pin Manufacturing</td>
<td>32</td>
<td>841</td>
<td>$163,664</td>
<td>$29,351</td>
</tr>
<tr>
<td>333924</td>
<td>Industrial Truck, Tractor, Trailer, &amp; Stacker Machinery Mfg</td>
<td>29</td>
<td>717</td>
<td>$207,476</td>
<td>$35,194</td>
</tr>
<tr>
<td>332912</td>
<td>Fluid Power Valve and Hose Fitting Manufacturing</td>
<td>12</td>
<td>626</td>
<td>$78,978</td>
<td>$66,170</td>
</tr>
<tr>
<td>336414</td>
<td>Guided Missile and Space Vehicle Manufacturing</td>
<td>6</td>
<td>426</td>
<td>$50,854</td>
<td>$123,379</td>
</tr>
<tr>
<td>332995</td>
<td>Other Ordnance and Accessories Manufacturing</td>
<td>2</td>
<td>387</td>
<td>$4,332</td>
<td>$57,037</td>
</tr>
<tr>
<td>336321</td>
<td>Vehicular Lighting Equipment Manufacturing</td>
<td>1</td>
<td>40</td>
<td>$12,160</td>
<td>$41,674</td>
</tr>
<tr>
<td>336415</td>
<td>Guided Missile and Space Vehicle Propulsion Unit and Propulsion Unit Parts Manufacturing</td>
<td>1</td>
<td>4</td>
<td>$1,092</td>
<td>$228,795</td>
</tr>
</tbody>
</table>

**TOTAL** 4,063 105,459 $28,143,473 $77,012

Source: Centers of Excellence, California Community Colleges Chancellor's Office. Data provided by ESRI, Inc.
# Table 2: Aerospace Industries Revenue and Employment by County, 2008
(Sorted by Employment)

<table>
<thead>
<tr>
<th>County Name</th>
<th># of Businesses</th>
<th># of Employees</th>
<th>2007 Sales, $'000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Los Angeles County</td>
<td>1,790</td>
<td>49,175</td>
<td>$12,557,406</td>
</tr>
<tr>
<td>Orange County</td>
<td>784</td>
<td>27,029</td>
<td>$9,194,243</td>
</tr>
<tr>
<td>San Diego County</td>
<td>422</td>
<td>13,629</td>
<td>$2,838,756</td>
</tr>
<tr>
<td>San Bernardino County</td>
<td>355</td>
<td>5,649</td>
<td>$1,281,925</td>
</tr>
<tr>
<td>Ventura County</td>
<td>206</td>
<td>3,733</td>
<td>$808,128</td>
</tr>
<tr>
<td>Riverside County</td>
<td>267</td>
<td>3,306</td>
<td>$723,033</td>
</tr>
<tr>
<td>Santa Barbara County</td>
<td>72</td>
<td>1,319</td>
<td>$350,099</td>
</tr>
<tr>
<td>Kern County</td>
<td>102</td>
<td>1,237</td>
<td>$310,789</td>
</tr>
<tr>
<td>San Luis Obispo County</td>
<td>52</td>
<td>287</td>
<td>$53,677</td>
</tr>
<tr>
<td>Imperial County</td>
<td>13</td>
<td>95</td>
<td>$16,617</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>4,063</strong></td>
<td><strong>105,459</strong></td>
<td><strong>$28,143,473</strong></td>
</tr>
</tbody>
</table>

Source: Centers of Excellence, California Community Colleges Chancellor's Office. Data provided by ESRI, Inc.

## Distribution of Aerospace Employment by County, 2008

- Los Angeles County: 47%
- Orange County: 3%
- San Diego County: 26%
- San Bernardino County: 13%
- Ventura County: 5%
- Riverside County: 4%
- Santa Barbara County: 3%
- Kern County: 1%
- San Luis Obispo County: 1%
- Imperial County: 0%
TABLE 3: AEROSPACE INDUSTRIES EMPLOYMENT GROWTH BY COUNTY, 2004-2008
(Sorted by 2008 Employment. Data shows employment numbers and annual growth in %)

<table>
<thead>
<tr>
<th>County Name</th>
<th>2004 Jobs</th>
<th>2005 Jobs</th>
<th>%</th>
<th>2006 Jobs</th>
<th>%</th>
<th>2007 Jobs</th>
<th>%</th>
<th>2008 Jobs</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Los Angeles County</td>
<td>51,475</td>
<td>39,981</td>
<td>-22%</td>
<td>44,484</td>
<td>11%</td>
<td>47,686</td>
<td>7%</td>
<td>49,175</td>
<td>3%</td>
</tr>
<tr>
<td>Orange County</td>
<td>26,696</td>
<td>24,092</td>
<td>-10%</td>
<td>21,193</td>
<td>-12%</td>
<td>26,728</td>
<td>26%</td>
<td>27,029</td>
<td>1%</td>
</tr>
<tr>
<td>San Diego County</td>
<td>10,919</td>
<td>11,208</td>
<td>3%</td>
<td>10,494</td>
<td>-6%</td>
<td>12,471</td>
<td>19%</td>
<td>13,629</td>
<td>9%</td>
</tr>
<tr>
<td>San Bernardino County</td>
<td>5,815</td>
<td>4,485</td>
<td>-23%</td>
<td>5,644</td>
<td>30%</td>
<td>5,429</td>
<td>-9%</td>
<td>5,629</td>
<td>3%</td>
</tr>
<tr>
<td>Ventura County</td>
<td>2,185</td>
<td>2,197</td>
<td>1%</td>
<td>2,449</td>
<td>11%</td>
<td>2,835</td>
<td>16%</td>
<td>3,733</td>
<td>32%</td>
</tr>
<tr>
<td>Riverside County</td>
<td>3,296</td>
<td>3,581</td>
<td>9%</td>
<td>2,673</td>
<td>-25%</td>
<td>2,752</td>
<td>3%</td>
<td>3,306</td>
<td>20%</td>
</tr>
<tr>
<td>Santa Barbara County</td>
<td>1,431</td>
<td>1,454</td>
<td>2%</td>
<td>1,747</td>
<td>20%</td>
<td>1,387</td>
<td>-21%</td>
<td>1,319</td>
<td>-5%</td>
</tr>
<tr>
<td>Kern County</td>
<td>1,303</td>
<td>1,201</td>
<td>-8%</td>
<td>1,189</td>
<td>-1%</td>
<td>1,252</td>
<td>5%</td>
<td>1,237</td>
<td>-1%</td>
</tr>
<tr>
<td>San Luis Obispo County</td>
<td>199</td>
<td>210</td>
<td>6%</td>
<td>264</td>
<td>26%</td>
<td>224</td>
<td>-15%</td>
<td>267</td>
<td>28%</td>
</tr>
<tr>
<td>Imperial County</td>
<td>144</td>
<td>87</td>
<td>-40%</td>
<td>88</td>
<td>1%</td>
<td>109</td>
<td>24%</td>
<td>95</td>
<td>-13%</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>105,463</strong></td>
<td><strong>88,496</strong></td>
<td><strong>90,425</strong></td>
<td><strong>100,931</strong></td>
<td><strong>12%</strong></td>
<td><strong>105,459</strong></td>
<td><strong>4%</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Centers of Excellence, California Community Colleges Chancellor's Office. Data provided by ERI, Inc.
College Specific Case Study:

Mt. San Jacinto College

Income

The predominant income group in the area is the $25,000 to $50,000 annual earnings. However, the share of the population making between $50,000 and $75,000 is steadily growing.

In 2010, the number of households with annual incomes from $35,000 to $50,000 decreased.

Table 2 - Household Income Summary for Mt. San Jacinto College

<table>
<thead>
<tr>
<th>Income Range</th>
<th>Number</th>
<th>Percent</th>
<th>Number</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;$25,000</td>
<td>14,223</td>
<td>18.0%</td>
<td>14,324</td>
<td>18.7%</td>
</tr>
<tr>
<td>$25,000-$39,999</td>
<td>15,312</td>
<td>19.8%</td>
<td>14,221</td>
<td>19.0%</td>
</tr>
<tr>
<td>$40,000-$59,999</td>
<td>16,663</td>
<td>21.7%</td>
<td>15,759</td>
<td>20.9%</td>
</tr>
<tr>
<td>$60,000-$79,999</td>
<td>16,563</td>
<td>21.7%</td>
<td>15,759</td>
<td>20.9%</td>
</tr>
<tr>
<td>$80,000-$99,999</td>
<td>8,110</td>
<td>10.6%</td>
<td>9,175</td>
<td>12.3%</td>
</tr>
<tr>
<td>$100,000-$149,999</td>
<td>2,112</td>
<td>2.7%</td>
<td>6,179</td>
<td>7.9%</td>
</tr>
<tr>
<td>$150,000+</td>
<td>544</td>
<td>0.7%</td>
<td>1,162</td>
<td>1.5%</td>
</tr>
</tbody>
</table>

Total: 78,924

Source: U.S. Census Bureau, Census Tract Data.
College Specific Case Study:

Mt. San Jacinto College

- Demographics
- Projected Student-Age Population
- Industry Breakdown
  - Top 15 Industries
- Projected Job Growth
- Largest Occupations
  - Top 50 with highest Job potential in 2012
“Mt. San Jacinto College requested the assistance of the Centers of Excellence to do an environmental scan to enhance our ability to deliver education and training services to businesses and workers in high growth industries. We found this information extremely valuable as we consider class courses to offer on our campus as well as industries to contact to increase contract education.

Currently we have taken that information and begun developing curriculum to enhance our course offering. Our contract education specialists is also using the information to target local businesses in short-term on the job training and has found the information helpful in letting local businesses know what the needs of the community will be in the near future. We appreciate the time and effort that the center has given the college in providing this valuable information.”

Michael Conner, Dean of Instruction
Mt. San Jacinto Community College District
College Specific Reports:

- College of the Desert
  - Small Business Analysis Report. Used for developing an Entrepreneurial Certificate
- Palo Verde College
  - Customized demographic report: Accreditation self study
- Cerro Coso College
  - College Report: Used to help determine direction of strategic plan. Retired 2 programs and started 3 new ones.
- Barstow College
  - Labor Market Report for Physical Fitness [gym] Managers: Used to not start a program or allocate resources
Green Study: California

- **Phase I:** Provide a research-based framework to assist Community College administrators and faculty in studying what “green” is in terms of industries, occupations, and educational programs.

- **Phase II:** Collecting primary data to **qualify** existing and near-future labor market opportunities in green sectors and industries and identify possible gaps between demand and supply of prepared workforce.
Statewide Study: Phase 1 Process

1. Defining:
   - green industry
   - green occupation

2a. Identifying emerging green industries (using existing literature)

2b. Identifying emerging green occupations (using existing literature)

3a. Building a crosswalk between green industries & traditional industries (NAICS codes)

3b. Building a crosswalk b/w green industries, green occupations & traditional occupations (SOC codes)

3c. Building a crosswalk between green occupations and CCC programs (TOP codes)

4. Validating industry & occupational crosswalks with panel of experts

5. Final Report (exp. April 2009)

Partnership with CA Labor Market Information Department (LMID)
Green Study: Definitions

- **Green Firm:** an organization that provides products and/or services that are aimed at utilizing resources more efficiently, providing renewable sources of energy, lowering greenhouse gas emissions, or otherwise minimizing environmental impact.

- **Green Job:** an occupation that 1) directly works with policies, information, materials, and/or technologies that contribute to minimizing environmental impact, and 2) requires specialized knowledge, skills, training, or experience in these areas.
Top 19 Green Occupations

- Solar System Installers
- Cost Estimators for Green Building/Retrofitting
- Wind Turbine Technicians
- Energy Efficient Occupational Cluster (8)
- Ethanol & Biodiesel Production Technician
- Alternative Fuel Automotive Tech
- Green Engineering Occupations (6)
Emerging Industry Case Study: The Solar Industry

Workforce Challenges

Employees in the Bay Area are facing significant challenges finding qualified workers:

- Three out of four employees indicate difficulty finding entry-level employees.
- Four out of five employees indicate difficulty finding experienced employees.

Occupational Employment, Difficulty in Hiring and Expected Growth

The following five solar occupations were studied:

- PV Installer
- Solar Thermal Installer
- Sales Representative
- Solar Designer/Engineer
- Installation Manager/Project Foreman

The area of each bubble represents the size of current employment for each occupation.

All five occupations show significant growth over the next 12 months, with PV installers (50%) and sales representatives (55%) having the strongest projected growth.

Employers indicate great difficulty in hiring for all five occupations (over 75%).

More preliminary findings are expected to be released in March 2008. The full report will be available at: http://solarindustry.org/
Career Ladder

Local Employment Figures

“Real” Wage Data
Education & Training Required

CC Programs Needed

Partnership were the Key
Solar Scan Results

- Additional for-credit, not-for-credit, and contract education offerings throughout the state
- Faculty training
- Testimony Legislative Briefing
- Key Findings document disseminated to Solar Industry partners.
- Used in industry advocacy at the federal level to extend solar tax credits
COE Products:

- Regionalized Environmental Scans
  - Grant funded. No additional cost to colleges.

- Customized College Reports
  - Business listings, labor market projections (less than 4 hours processing time); grant funded. free.
  - GIS maps, cluster analysis, descriptive statistics, comprehensive college service area report (more than 4 hours processing time); cost recovery fee for additional staff. Approximately $6,000 depending on scope of request
COE Impacts & Results

✓ 75 completed environmental scans
✓ 29 new or revised programs in 2008 alone
  • Multiple Solar Panel Installer programs
  • Riverside Community College’s Simulation and Gaming certificate & degree program
  • New Phlebotomy program at Modesto College
✓ Over 200 college specific requests fulfilled
COE Impacts & Results

✔ Over $21,000,000 in successful grant proposals using environmental scan reports
  • 74% funding rate

✔ Partnered to leverage resources
  • Wind turbine part donations
  • Energy Efficiency w/ Lawrence Berkeley Labs
  • Expanded clinical sites for health care programs

✔ Providing industry updates to career counselors
COE Impacts & Results

✓ Built or expanding business partnerships (industry councils & advisory groups)
  • Inland Empire – Solar Council 501(c)(6)
  • Silicon Valley – Regional Accounting Advisory Committee
  • Bay Region – Water Districts partnerships

✓ Enhancing college planning and effectiveness
  • College of the Desert – strategic planning & focus groups

✓ Marketing to business and industry
  • El Camino College – Aerospace and Manufacturing employers
Scans in Progress 2009

- Allied Health Overview
- Basic Skills
- Dental Hygienists
- Energy Efficiency Occupations
- Engineering/Aerospace Cluster
- Geospatial (GIS)
- Green Economy Occupations
- Information & Communication Technology
- LEED Certification
- Massage Therapists
- Medical Imaging Occupations
- Medical Lab Technicians
- Offices of Dentists
- Pharmacy Technicians
- Psychiatric Technicians
- Solar Industry
- Surgical Technicians
- Water Efficiency / Green Plumbing
- Water Technology
- Wind Energy Industry
Thank You!

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