The California Community College CTE Employment Outcomes Survey

RP Conference
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San Francisco, California

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To Join the Poll:
1. Send a text:
   - To: **37607**
   - Message: **KCGREANEY213**

2. Receive a confirmation

* Poll is anonymous
What is your primary role at your institution?

- Institutional Research
- Planning
- Non-IRP Administration
- Not at a college/district
- Other

Start the presentation to activate live content

If you see this message in presentation mode, install the add-in or get help at PollEv.com/app
CTE Employment Outcomes Survey: Background

• Collaborative effort among community college consortia, the Chancellor’s Office, the RP Group, and Santa Rosa Junior College
  o It all started at a CCCAOE conference
  o Modeled primarily after Cabrillo College’s Completer/Leaver Surveys
  o SRJC assumed fiscal responsibility from RP Group in 2014

• Dual purposes:
  o Provide insightful information for local program improvement
  o Collect statewide data for documentation of CTE outcomes

• Practitioner-Driven Effort
  o Statewide meetings, conference calls, collaboration
  o All methodology, implementation and survey questions vetted
  o Use survey to collect data and information not available elsewhere
  o Report format developed in response to practitioner needs
CTE Employment Outcomes
Survey: Methodology

Survey Distribution

• 3 Modalities: e-mail, then sms text, then phone calls
• Survey conducted approximately 1.5 years after completing/leaving

Sample (2016/2017)

• All students included who met the criteria
  o By 14/15, had either earned a vocational award of 6+ units OR earned 9+ CTE units AND did not enroll in more than 5 units in 15/16

Data

• Chancellor’s Office MIS data wherever possible
• Local data supplement (student contact information)
• Survey data
CTE Outcomes Survey: Purpose

The big questions...

• Are our CTE students employable?
• Do they find jobs in the field in which we trained them?
• Do they see an increase in income?

...in other words, was the program worth it? Are we justified in offering it?
How the CTE Outcomes Survey Differs from the CCCCCO Salary Surfer/Wage Tracker
## Different Approaches

<table>
<thead>
<tr>
<th>Methodology</th>
<th>CTEOS</th>
<th>CCCC CO SalarySurfer/WageTracker</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sample</td>
<td>Survey</td>
<td>Data Match (CCCCO &amp; EDD-UI Wage)</td>
</tr>
<tr>
<td>Response/Match Rate</td>
<td>~30%</td>
<td>~70%</td>
</tr>
<tr>
<td>Timeframe</td>
<td>Surveyed approx. 1.5 years after departing CCC</td>
<td>Quarterly income for completers prior and post award</td>
</tr>
</tbody>
</table>
## Merits/Limitations

<table>
<thead>
<tr>
<th></th>
<th>CTEOS</th>
<th>CCCC0 SalarySurfer/WageTracker</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Merits</strong></td>
<td>• Includes all CTE students, regardless of employment status or residence</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Provides information on a variety of outcomes in addition to wage gain</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(including whether working in their field of training)</td>
<td></td>
</tr>
<tr>
<td><strong>Limitations</strong></td>
<td>• Self-Reported Information (with the exception of COMIS data)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Includes only students earning wages in California</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• No self employed, unemployed, or federal employees (military etc.)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• No control for part-time/full-time work</td>
<td></td>
</tr>
</tbody>
</table>
CTE Outcomes Survey: Overall Statewide Results 2016
Has your college participated in the CTE Outcomes Survey past years?

- No
- Yes, once
- Yes, two or three times
- Yes, four or more times
- I don't know

Start the presentation to activate live content.
Statewide Findings

• 28% Response Rate
• 91% Satisfaction Rate with education and training
• 38% transferred
• 73% working in their field of study (or “close”)

RP Conference, 4/21/2017
Findings: Employment Status

77% of respondents are employed for pay

- Self-employed, 9%
- Employed at one job, 57%
- Employed at more than one job, 11%
- Unemployed, AND seeking, 9%
- Unemployed, NOT seeking, 9%
- Working, not for pay, NOT seeking, 1%
- Working, not for pay, AND seeking, 1%
Findings: Work Status

More students worked full time after completing studies and training.
Findings: Working in the Field of Training

The majority of students (69%) indicated their current job is in their field of study, or in a field that is “close.”

How Closely Related to Your Job is Your Field of Study?

- Blue: In the same field
- Red: Close
- Orange: Not Related

Relationship of Job to Studies/Training
Findings: Wage Increase

The hourly wage of respondents increased 41% from their hourly wage before their studies/training ($17.62) to their hourly wage after completing their studies/training ($24.87).
CTE Outcomes Survey: Statewide Results for the Past 5 Years
Participation and Response Rates

RP Conference, 4/21/2017
Number of Students Surveyed

- 2012: 19,000
- 2013: 20,000
- 2014: 60,000
- 2015: 80,000
- 2016: 100,000
- 2017 est: 140,000

RP Conference, 4/21/2017
Employment Status

- Unemployed and Seeking
- Unemployed and Not Seeking
- Employed at One Job
- Employed at More Than One Job
- Self Employed
- Transferred

Year:
- 2012
- 2013
- 2014
- 2015
- 2016

Percentage:
- 0%
- 10%
- 20%
- 30%
- 40%
- 50%
- 60%
- 70%

RP Conference, 4/21/2017
Change in Wages Over Time


Wages Before  Wages After  % Change

$0.00  $5.00  $10.00  $15.00  $20.00  $25.00  $30.00

0%  5%  10%  15%  20%  25%  30%  35%  40%  45%

RP Conference, 4/21/2017
For More Detailed Findings:

- CTE Data Unlocked Launchboard (CTEOS tab going live soon!)
- CTEOS Project website (where you can examine results for your college):

  https://cteos.santarosa.edu/
Survey Data Analysis

Among students who do not transfer, is there a positive relationship between wage gain and number of earned units?
Non-transferring **completers** who attain more units receive greater wage gains (Spearman’s Rho $r_s = 0.133, p < .001$)
Non-transferring **skills-builders** who attain more units receive greater wage gains (Spearman’s Rho $r_s = 0.05, p < .05$)
Further Examination of Results

• Over a third of respondents transferred to a 4-year college or university
• Less than half of respondents earned a degree or certificate

...doesn’t that make a difference?

✓ How do the results vary by transfer and completion status?
✓ What characterizes “Skills Builders” (non-completers)?
✓ Does completion matter?
# Wage Increase by Transfer and Completion Status

<table>
<thead>
<tr>
<th>Completion Status</th>
<th>Hourly Wage Prior</th>
<th>Hourly Wage Post</th>
<th>Increase</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Skills Builder</td>
<td>$19.26</td>
<td>$26.02</td>
<td>$6.76</td>
<td>35.1%</td>
</tr>
<tr>
<td>Terminal Certificate</td>
<td>$18.24</td>
<td>$27.82</td>
<td>$9.58</td>
<td>52.5%</td>
</tr>
<tr>
<td>Transfer w/o CC award</td>
<td>$14.44</td>
<td>$21.07</td>
<td>$6.63</td>
<td>45.9%</td>
</tr>
<tr>
<td>Transfer with CC award</td>
<td>$15.24</td>
<td>$24.07</td>
<td>$8.83</td>
<td>57.9%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$17.50</strong></td>
<td><strong>$24.89</strong></td>
<td><strong>$7.39</strong></td>
<td><strong>42.2%</strong></td>
</tr>
</tbody>
</table>
Respondents: Characteristics

<table>
<thead>
<tr>
<th></th>
<th>Skills Builder</th>
<th>Terminal Certificate</th>
<th>Transfer: w/o CC award</th>
<th>Transfer: with CC award</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender: Female</td>
<td>48.1%</td>
<td>59.3%</td>
<td>46.6%</td>
<td>56.6%</td>
</tr>
<tr>
<td>Ed Attain: BA/BS +</td>
<td>23.1%</td>
<td>19.9%</td>
<td>6.8%</td>
<td>5.3%</td>
</tr>
<tr>
<td>Age</td>
<td>34.0</td>
<td>35.4</td>
<td>25.3</td>
<td>27.5</td>
</tr>
<tr>
<td>Acad. Disadvantaged</td>
<td>39.2%</td>
<td>41.3%</td>
<td>39.7%</td>
<td>48.5%</td>
</tr>
<tr>
<td>n=11,583</td>
<td>n=5,093</td>
<td>n=7,885</td>
<td>n=3,067</td>
<td></td>
</tr>
</tbody>
</table>
Respondents:
Interesting Findings

<table>
<thead>
<tr>
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<th>Skills Builder</th>
<th>Terminal Certificate</th>
<th>Transfer: w/o CC award</th>
<th>Transfer: with CC award</th>
</tr>
</thead>
<tbody>
<tr>
<td>“Very close” relationship between studies/training and job</td>
<td>32.8%</td>
<td>52.8%</td>
<td>27.5%</td>
<td>39.9%</td>
</tr>
<tr>
<td>Successful job search</td>
<td>21.9%</td>
<td>44.7%</td>
<td>20.8%</td>
<td>32.0%</td>
</tr>
<tr>
<td>Coursework/training had “no impact” on employment</td>
<td>32.7%</td>
<td>15.5%</td>
<td>33.5%</td>
<td>22.1%</td>
</tr>
<tr>
<td>Self Employed</td>
<td>12.7%</td>
<td>8.1%</td>
<td>7.0%</td>
<td>7.2%</td>
</tr>
<tr>
<td>Ed Goal: Update Skills, Renew License</td>
<td>9.6%</td>
<td>7.6%</td>
<td>2.4%</td>
<td>2.8%</td>
</tr>
<tr>
<td>Ed Goal: Self Enrichment</td>
<td>4.6%</td>
<td>3.5%</td>
<td>2.8%</td>
<td>1.7%</td>
</tr>
</tbody>
</table>
## Respondents: Interesting Findings

<table>
<thead>
<tr>
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<th>Transfer: with CC award</th>
</tr>
</thead>
<tbody>
<tr>
<td>Obtained journey-level status</td>
<td>4.1%</td>
<td>6.7%</td>
<td>2.3%</td>
<td>4.0%</td>
</tr>
<tr>
<td>Obtained industry certificate or licensure</td>
<td>17.6%</td>
<td>43.9%</td>
<td>9.5%</td>
<td>25.2%</td>
</tr>
</tbody>
</table>
CTE Employment Outcomes Survey: Methodology

Changes to CTEOS 2017

• 3 Modalities: e-mail, *sms messaging*, then phone calls
• Greater use of survey flow—faster completion time
• More piped text—survey is more personalized
• Collecting more behind-the-scenes data
  o (e.g., browser type & version, OS, screen resolution, flash version, java support)
• “Program of Study” question contains option of 11 most identified programs (instead of open-ended response only)
• “Industry of Current Job” question contains NAICS list (instead of open-ended response only)
CTE Employment Outcomes Survey: Methodology

Changes to CTEOS 2017

- Does embedding a question in email recruitment increase response rates?
  - **2017**: 23533/147,630 (15.9%)
  - 2016: 6721/104,441 (6.4%)
  - 2015: 4100/57,708 (7.1%)
  - 2014: 2285/54,404 (4.2%)
  - 2013: 3658/47,436 (7.7%)
Regional Research
Regional Research: Background

San Diego and Imperial Counties Consortium:

• 10 community colleges
• ~250,000 community college students
• Culture of regional collaboration and planning

Problem: unable to answer critical questions regarding student outcomes in CTE areas and sectors

Solution: utilize CTE Enhancement funding (2014-16) to participate in CTE OS region-wide
Regional Research: Process

- Regional coordination working with SRJC (~4,700 survey responses collected)
- Additional regional analyses of data: all CTE and by sector
  - Consultant
  - Regional COE for Labor Market Research
- Development of briefs to highlight the findings by college and by sector
  - Integration of results in all regional planning
Regional Research: Products

- Regional summary provided by SRJC
- Regional report
- Regional brief
- College briefs (10)
- Sector briefs (7)
Regional CTE Outcomes Brief

Student Employment Outcome

Career & Technical Education Student Employment Outcomes
San Diego & Imperial Counties Community Colleges

4,708 CTE students from the 10 community colleges in San Diego and Imperial counties were surveyed in Spring 2016 by the Office of Institutional Research and Planning at Santa Rosa Junior College. The survey's purpose was to determine:

- If students became employed in their field of study.
- If coursework positively affects earning potential.
- Why students drop out of CTE programs.

Respondent College Attended

<table>
<thead>
<tr>
<th>College</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>San Diego Continuing Education</td>
<td>20%</td>
</tr>
<tr>
<td>Palomar College</td>
<td>12%</td>
</tr>
<tr>
<td>San Diego Miramar College</td>
<td>11%</td>
</tr>
<tr>
<td>San Diego State College</td>
<td>6%</td>
</tr>
<tr>
<td>Imperial Valley College</td>
<td>5%</td>
</tr>
<tr>
<td>Orange Coast College</td>
<td>5%</td>
</tr>
<tr>
<td>San Diego City College</td>
<td>5%</td>
</tr>
<tr>
<td>Miramar College</td>
<td>5%</td>
</tr>
<tr>
<td>Southwestern College</td>
<td>5%</td>
</tr>
</tbody>
</table>

Age

- 30% 18-24
- 40% 25-34
- 30% 35+
- 3.0+ Average GPA
- 80% Employed
- 31% Transferred after completing coursework

Top Majors Include:
- Business Administration/Management
- Small Business Management
- Economics
- Accounting
- Administration/Justice/Criminal Justice
- Child Development
- Early Childhood Development
- Computer Science/IT
- Network Administration
- Nursing
- General Education
- Automotive Technology

Top reasons for studies:
- Earn a certificate/associate's degree/certificate (95%)
- Earn a bachelor's degree (94%)
- Earn a master's degree (92%)
- Obtain a job (68%)
- Provide personal needs (45%)
- Transfer to a 4-year university (38%)
- Employment (23%)
- Job retention (20%)
- Employment and promotion (1%)
- Earning potential (1%)
- Other (7%)

Most "completers" (70%) in Health Care, Energy, Construction & Utilities, Advanced Transportation & Renewables, and Advanced Manufacturing indicated that their current jobs are very closely related to what they studied.

50% of "skill builders" and 70% of "completers" indicated that their coursework allowed them to stay in their current jobs, get a promotion or prepare for a new job. 1/2 of all survey respondents indicated that their coursework had no impact on their employment, likely due to transferring to a 4-year university to continue their studies (31% transferred).

91% of "skill builders" and 95% of "completers" responded that they were satisfied or very satisfied with their education and training.

Conclusions:
- Most CTE students do not access career services—especially skill builders.
- Many completers indicated that their employment is closely related to their field of study, especially in industries that have a higher number of internships and apprenticeships.
- There is strong evidence that CTE students are more employable after completing coursework.
- Students perceive that coursework helps them to get or maintain a job, or get a promotion—the perceived and actual value of a college education is clear.
- Students were overwhelmingly satisfied with the quality of the programs and instruction they received, and believed that the colleges offer an environment in which to succeed.
Regional Sector Briefs x7

CAREER & TECHNICAL EDUCATION STUDENT EMPLOYMENT OUTCOMES:

LIFE SCIENCES/BIOTECHNOLOGY SECTOR
SAN DIEGO & IMPERIAL COUNTIES COMMUNITY COLLEGES

Impact on Employment

WHAT IMPACT DID YOUR COURSEWORK HAVE ON YOUR EMPLOYMENT?

- 60% Allowed me to get a job at a new organization
- 15% Prepared me for a possible new job
- 15% Allowed me to stay in my current job
- 5% No impact on my employment
- 5% Allowed me to get a promotion at my same organization

Before: $10.10
After: $23.86
Conclusions:
CTE students are more employable after coursework

After CTE coursework:

Full-time employment increases
  +17% for completers
  +13% for skills-builders

Permanent employment increases
  +7% for all

Wages increase
  +35.5% wage gain on average

Data Source: COE Employment Outcomes Survey 2016, SDIC Region
Conclusions: CTE programs help student move into living wage careers

2/3 make a living wage one year after coursework in:
- Public Safety
- Agriculture & water technology
- Global trade
- Clean energy
- Energy, construction & utilities
- Advanced manufacturing
Conclusions:
CTE students find work in the field of study

2/3+ employed in the field of study

65% skills-builders
76% completers
Top CTE program areas by employment in the field of study one year after completing a certificate or degree

<table>
<thead>
<tr>
<th>Program Area</th>
<th>Employment Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Energy, Construction &amp; Utilities</td>
<td>89%</td>
</tr>
<tr>
<td>Health</td>
<td>88%</td>
</tr>
<tr>
<td>Advanced Manufacturing</td>
<td>88%</td>
</tr>
<tr>
<td>Advanced Transportation &amp; Renewable Energy</td>
<td>82%</td>
</tr>
</tbody>
</table>
Conclusions: CTE Students taking classes in priority sectors achieve better than average outcomes

Programs with higher than average full-time employment rates:
- Advanced Manufacturing
- Advanced Transportation
- Energy, Construction & Utilities
- Health

+30% in full-time employment (17% avg)
+12% in permanent jobs (7% avg)
Regional Research: Main Uses

- Educating regional community about the success of CTE students and making the case for community colleges
  - Presented at the annual San Diego Workforce Conference in Nov 2016 (~400 participants)
  - Marketing materials

- Educating high school and middle school counselors on the value of CTE programs (adding to labor market data)
  - E.g., San Diego Counselors Conference, Dec 2016 (~100 participants)

- Regional strategic and initiative planning
  - WIOA Regional Plan for Southern Border region, Jan 2017
  - Strong Workforce Regional Plan, Jan 2017

- Sector need assessments and action planning by sector navigators and deputy sector navigators
  - E.g., Life Sciences/Biotechnology
Use of Findings
Use of Findings

Accountability evidence supporting the efficacy of CTE

- CTE Data Unlocked: Launchboard
  - Strong Workforce Program Metrics: “Job Closely Related to Field of Study”
  - Program Snapshot
  - CTE Outcomes Survey Tab
- ACCJC Reporting (job placement rates)
- Gainful Employment Reporting
- Veteran’s Reporting
  - MOU under development with CCCC0
Use of Findings

Promotional information underscoring the value of CTE
  o Annual college level report

Program review and improvement data
  o Full data sets are provided to each college
  o Program renewal/discontinuance
  o Advisory boards
  o Regional analysis

Dissertation Research

Regional Research
  o Centers for Excellence
Use of Findings: Tools

• Calculating “Employment in Field of Study”

Craig Hayward
the RP Group
“Employment in Field” data can be used for:

- Local Program Review
- Gainful Employment Reporting
- The ACCJC Annual Report
- Non-College Degree Program reporting for GI Bill
How to calculate employment in field

• Employment in field can be calculated based on the survey results data file received from Santa Rosa Junior College (SRJC).

• For a full write up, including syntax and step-by-step directions, please visit the Data Disaggregation ASK!
Professional Learning Network

A dynamic repository of effective practices, trainings and other resources (https://prolearningnetwork.cccco.edu/)

Your One-Stop Site to Effective Practices, Trainings and Other Resources

What Would You Like To Do Today?

- Resources
  - Learn About Effective Practices and More

- Learn
  - Access Video Trainings

- Connect
  - Connect with My Peers

- MyPD
  - Work on Professional Development Plan

- ASK
  - Applied Solution Kits

- Calendar
  - View a System-Wide Calendar of Events
How has your college used the findings?
For more information:  https://cteos.santarosa.edu

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Craig Hayward  chayward@rpgroup.org

Questions?